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Escalation Management in the Gray Zone

Shaping Decision Calculus: From Theory to Causal Understanding

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<h1 style="text-align: center">Executive Summary</h1>

1. Project Outline

This three-year Minerva Research Initiative project (2018-2021) analyzed great power behavior in gray zone crises - conflicts that unfold in the space between war and peace, with actors purposely using multiple elements of power to achieve political-security objectives with activities that are ambiguous or cloud attribution. It focused largely on Russia, China, and their proxies, seeking to establish the options available to the U.S. for shaping adversary behavior and managing escalation in this relatively new but increasingly prevalent type of conflict. Focusing on state behavior, the project pooled historical data from several established databases and collected a unique new database focused on state behavior in gray zone international crises, in order to empirically test the effectiveness of different escalation management approaches using statistical analysis, survey tools, and multi-iteration computer modeling.

This report starts with a historical overview of key international crisis events since the 1990s that have shaped the conflict environment and the tools currently in use (Chapter 1), focusing on the practices that are currently shaping the concept of gray zone warfare. In Chapter 2, we offer a detailed discussion of the emergence of this concept from the perspectives of the three global powers - the U.S., Russia, and China. Paralleling the historic overview of events, Chapter 3 provides a historical view of theories describing conflict dynamics since the 1990s - these are the foundations from which the models and frameworks developed in the subsequent chapters have emerged.

2. Definition

We have outlined the evolution of the definition of gray zone (GZ) conflict, and settled on the following formulation: gray zone conflict encompasses **rivalry and competition short of war using any means, military, and non-military** - economic, military, diplomatic, social, political, etc. In most cases, gray zone conflict ends once either side uses overt military force, and certainly state mil-mil interaction constitutes a clear upper boundary of gray activity. We have also identified the following key features of gray zone conflict:

1. The actor perceives that normal conflict/competition passes over the threshold from acceptable to unacceptable. "Acceptable" implies competition that may not be appreciated but can be abided. "Unacceptable" implies activities that are perceived as threatening to one's security.
2. An actor employing gray zone tactics has an ultimate national-security focus.
3. An actor employing gray zone tactics is not using conventional violence itself directly (though it may be doing so via a proxy).
4. Gray zone tactics are intentionally chosen by the actor to lower the risks or costs (e.g., in resources, international opprobrium, retaliation) that would be incurred if direct action were taken.
5. Military actions conducted by an actor employing gray zone tactics, even if non-violent, are done covertly.
6. The intent of an actor employing gray zone tactics is ambiguous.

3. Quantitative Analysis of Historical Data

We used the most recent data from the International Crisis Behavior (ICB) database (1918-2018) to review the century's trends in international crises' emergence, escalation, and management - we discuss the key factors impacting these trends in Chapter 4. We subsequently used a subset of this data spanning the latter half of the century (1963-2015) to explore the propensity of an actor to use violence based on the **power disparity** between adversaries (e.g., great powers vs regional powers vs marginal players), their **regime types**, and **state capacity**. We analyzed a range of crises, asking what prompts states to choose gray/hybrid versus direct violent tools in initiating a crisis, as well as why defender states may choose to escalate in response to challenges (these findings are discussed in detail in Chapter 5).

In terms of regime type, we find that the more autocratic a challenger is, the more likely it is to trigger crises through gray tactics. Moreover, a deeper examination of these strategic decisions and next-best action options revealed that autocratic challengers tend to use gray tactics as a preferable alternative to non-gray violence - but not over non-gray non-violence. Nevertheless, highly autocratic and highly democratic states show no meaningful differences in terms of their propensity to escalate in defending their interests.

In terms of power dynamic, we find that the lesser the power differential between a challenger and a defender, the more likely they are to choose gray/hybrid tools - as opposed to other non-violent forms of initiating or responding to a crisis.

Overall, we found state capacity to be the critical factor in determining a state's propensity to use force to initiate or to escalate a crisis. This suggests a strong state-level explanation for international behavior – albeit one that stems not from the norms associated with regime type, but rather from institutional capacity for action.

Diving deeper into the use of violent vs. gray tools during crises, in Chapter 6 we have looked at how the employment of proxies might be related, focusing particularly on defender responses to different types and triggers of crises. We examined ICB crises where the initial triggering act is non-violent (which means that to respond with violence the defender would have to escalate considerably), as well as a narrower set of cases, where the triggering act is violent. Our findings suggest that the use of proxies is associated with a higher probability of defender violence, regardless of whether the initial crisis trigger was violent. Nevertheless, we found that states using proxies can somewhat decrease their probability of being attacked by the defenders.

The ICB data has also shown that the majority of proxies are non-state actors, and that they are much more likely to use violence when triggering a crisis – compared to their sponsor states. Their propensity to engage in violent behavior that can trigger crises can be explained by the proxies' typically limited means and lack of constraints. Thus, because the decision to use a proxy largely means employing a non-state actor, and because the defenders are generally more likely to respond to violence with violence, the decision to use a proxy virtually guarantees that the crisis will turn violent from the outset. Decision-makers would still have to weigh the associated costs and risks.

4. Survey

In Chapter 7, we discuss the findings of the project's Gray Zone Security Survey, conducted in March 2021 in the U.S., UK, and Lithuania (N=6,300). The survey focused on current public threat perceptions and preferred policy responses. This public survey, representing the full typological spectrum of NATO member states, has revealed overall high levels of multilateralism. Support for taking unilateral action is also relatively high (particularly in the U.S. and UK). The survey finds that NATO is perceived as the international first port of call across the board, notably among those who score highly on multilateralism and militarism scales. However, the dynamics underlying such support vary between these three countries and support for NATO does not necessarily translate into fixed alliances prevailing as they have done in the past. Between one third to 40% of respondents have no clear preference for relying on a pivotal member of NATO such as the U.S., or an organization whose membership significantly overlaps with that of NATO (the EU), when they are at odds with China.

Regarding Russia's interventionist tendencies, the survey showed public agreement across the sample that NATO ought to support targeted member states. In both the U.S. and the UK individuals with higher multilateralist and unilateralist attitudes were more likely to support NATO intervention in cases of Russian interference in a former Soviet State. NATO is also favored to intervene in such cases by those who place high value on diplomacy and on supporting the military. Although Lithuanians also prefer NATO's support in such a scenario, a significant minority (40%) favors the EU intervening on their behalf. Perhaps unsurprisingly, respondents from the U.S. remained mostly concerned about China as a threat, whereas Lithuanians still showed much greater concern over Russia (despite its recently aggressive foreign policy turn against China); interestingly, the UK public did not seem particularly threatened by either of these hostile great powers.

5. Modelling

Using the Pithya Timed Influence Net (TIN) model, the team ran two hypothetical case studies, exploring the outcomes of different crisis scenarios between the three global powers and their proxies (reported in Chapters 8 and 9).

The first scenario analyzed a hypothetical crisis in the South China Sea (Second Thomas Shoal), involving the Philippines, China, and the U.S. The model outcomes indicate that unless the U.S. and the Philippines take strong highly visible actions (e.g., resupply military presence, U.S. Navy conducting FON missions in the area), the ability of the Philippines to maintain a military presence becomes very problematic. In addition, our findings suggest that an emboldened China can increase the pressure if it perceives that there is no serious reaction.

The second scenario explored the various potential developments in the ongoing crisis in Ukraine, also involving Russia, the U.S., and several European countries. The model suggests that unless Russia withdraws its substantive support for the Donbas separatists, and the Ukrainian government mounts a considerable effort to curb internal corruption, the impact of Western third parties upon the country's political and economic stability will be limited. Moreover, it also indicates that should the West cease its diplomatic support to Ukraine or sanctions pressure on Russia, Ukraine would quite promptly fall into Russia's influence.

Indeed, the outcome of most developments we explored is likely to be Ukraine's rapprochement with Russia, rather than the West – although, while the conflict is still ongoing, the collection of data is not as reliable, and the results need to be treated with caution.

6. Tools

Chapter 10 concludes this report and outlines a Gray Zone Tool Kit by way of a review of significant new insights for U.S. policy makers on data-informed and empirically tested tools and levers available for managing escalation and deterrence in competition short of armed conflict. During the course of this project, the research team met with members of both strategic-level (inter-agency) and operational-level (joint military) planning communities to discuss the research observations described in earlier chapters and to look for ways to employ the ensuing insights to their work. Together with a new conceptual escalation management model developed in the course of this research, the Gray Zone Tool Kit employs a modeling platform to aid strategists and planners to address the factors that drive complex conflict situations. It allows planners and strategists to explore the causal dynamics driving international competition or conflict that can manifest as unanticipated, and often counterintuitive, outcomes. While this capability has broad applicability, the focus is on confrontations short of armed conflict which are complicated by intertwining political, territorial, economic, ethnic, and/or religious tensions.

Introduction

Jonathan Wilkenfeld and Egle E. Murauskaite

This document reports on a three year research effort, 2018-2021, to better understand how to manage escalation in gray zone crises. Funding for the project has been provided through the Minerva Research Initiative of the Office of the Secretary of Defense under a grant to the University of Maryland. The report reflects the efforts of an interdisciplinary group of senior researchers who have worked closely together to produce the findings and recommendations contained herein.

1. Major Goals

The major goal of this project is to analyze great power behavior in gray zone crises - conflicts that unfold in the space between war and peace, with actors purposely using multiple elements of power to achieve political-security objectives with activities that are ambiguous or cloud attribution. These actions often exceed the threshold of ordinary competition, yet fall below the level of large-scale direct military conflict, and challenge and even undermine international customs, norms, or laws (NSI 2016).

Focusing primarily on the examples of Russia, China, and their proxies, the project sought to establish the best ways to shape behavior and manage escalation in this relatively new but increasingly prevalent type of conflict. We tested the relative efficacy of different strategies drawn from the theory on immediate deterrence and escalation management through a multi-method approach. We mapped the various key theoretical arguments to indicators that show both their overall and relative effectiveness. We sought to verify and/or test their efficacy in the contexts of those gray zone conflicts of greatest interest to the U.S. national security community.

We pooled data from several established databases, most prominently the International Crisis Behavior (ICB) data (Brecher et al. 2021) and empirically tested the effectiveness of different escalation management approaches. The goal was to provide robust and replicable insights that contribute to both enhancing the theoretical understanding of modern deterrence dynamics, and addressing real world policy problems.

In short, the project was designed to investigate and compare the effectiveness of analytic and operational planning tools available to U.S. decision makers to shape adversary behavior in managing escalation in gray zone crises involving other great powers and/or their proxies.

It is well known in deterrence scholarship that while its underlying assumptions are elegant, they lack explanatory power, empirical support, and the nuance required by operators trying to identify effective strategies to deal with real world concerns. Core deterrence theories were born in the context of big power politics and nuclear brinkmanship. However, today U.S. national security interests are increasingly challenged by actions that disrupt the norms of interstate behavior while remaining below the normal threshold for armed conflict. Interference in media or elections, use of non-state proxies for political violence, strategic flouting of international law - these persistent provocations threaten the existing geopolitical order to a greater or lesser extent, and indicate that general deterrence is failing. Therefore, to

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shape adversary behavior without resorting to full-scale war, decision-makers are left with the toolkit of immediate deterrence, more precisely - that of escalation management. To be effective in this arena, decision makers need a more nuanced understanding (including theoretical underpinnings) of effective ways to manage conflict that threatens to unravel traditional crisis resolution mechanisms. Addressing these gaps is vital for U.S. security policy.

2. Research Concepts

The type of conflict that the U.S. and allies face today in many regions is one of continuous, low-level confrontations - the cumulative effect of which is destabilizing. Ambiguity in this type of conflict arises from limited time and information availability, thereby restricting the range of options under consideration; uncertainty about the nature, intent, and likely effects of the provocative action; and, in some cases, lack of clarity about who has initiated the action in question (Bragg, Pagano and Stevenson 2016). These situations differ from the scenarios of classic general deterrence theory, where a lasting peace is ensured by the looming prospect of direct military confrontation. Whether it's Russian "little green men" in former Soviet Bloc states, or China's creative use of law enforcement vessels in the South China Sea, this increasingly prevalent type of conflict presents a challenge to conceptualizing deterrence and escalation management: it has evolved in a deliberate effort to circumvent the existing institutional and normative frameworks, and continuously unfolds below any clearly delineated thresholds of the security order built on 20th Century treaties.

Assuming that the threat of U.S. retaliation will suffice to deter adversaries under any circumstances has led scholars to approach the study of deterrence in three principle ways: 1) empirical analyses that treat the different types of actors, deterrence decisions, and contexts in an aggregated manner; 2) game-theoretical analyses based on abstractions intended to represent the dynamics of reality as designed by the researcher; and 3) case study analyses of specific environments. Unfortunately, none of these narrow approaches provides results that align clearly with the requirements (or information available) in an operational setting. Moreover, the utility of the Cold War nuclear deterrence analogy for understanding and managing the dynamic of modern conflict is rapidly approaching a breaking point. At one end of the conflict spectrum, the collapse of the Soviet Union in the early 1990s made major war between East and West nearly inconceivable to Western publics, and all but impossible for a reduced Russian military. At the other end, resurgent Russian nationalism and the eastward expansion of NATO may have ensured that lower-level conflict is nearly unavoidable. In the space bounded by these two extremes, questions of effective escalation management take on new relevance.

This project aimed to identify the conditions under which different actions may be more (or less) effective at shaping adversary behavior, strengthening the foundations for diagnostic and decision support tools appropriate to the Gray Zone strategic and operational setting. We have sought to complement and operationalize escalation management research, linking theoretical frameworks and appropriate models to the challenges of modern conflict. In this, we hoped to improve the understanding of causal relations and logical weights associated with managing conflict, and in the process overcoming the disciplinary boundaries of traditional political science research in order to explore questions of direct relevance to decision-makers. The focal points of this research were the exploration of the drivers behind different escalation management strategies and power projection modes adopted by different

actors, and the generation of predictive models of outcomes stemming from the use of these different levers of influence.

3. Research Plan

The overall objective of this research project has been the identification of a range of tools available to U.S. decision makers in shaping crisis outcomes in Gray Zone crises, based on the multi-method approach. Building on new research on cross-domain deterrence (Lindsay and Gartzke, 2019), and classic escalation management frameworks, the effort develops a new conceptual narrative to underpin the subsequent analysis. In so doing, the project seeks to ultimately provide guidance to U.S. decision makers as they navigate current and future Gray Zone crises.

Figure I.1 below depicts a traditional view of the cycle of events in which the status quo of general deterrence *(Phase I)*, and then immediate deterrence (*Phase II*), is challenged. The deterrer may seek to engage in escalation control strategies aimed at preventing or ending a crisis that might lead to war, and returning to the status-quo ante. The starting assumption of this project is that in a Gray Zone conflict *Phase II: Immediate Deterrence* has essentially become the new daily reality. The research scope of this project falls largely into *Phase III: Limited Probe* – exploring the dynamics of managing escalation under these circumstances. During the course of the project, we have examined mechanisms relevant to the question of how to return from that scenario (*Phase III*) to successful general deterrence *(Phase I).*

Figure I.1. Model of Escalation Management
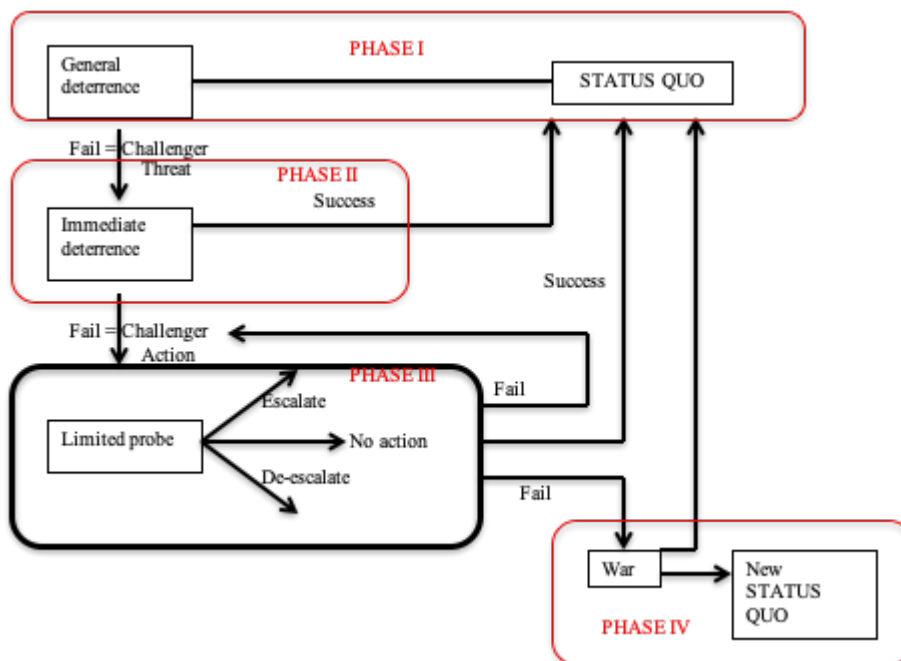
4. Schematic Representation of the Research Plan

The project has investigated the measurable levers affecting core crisis attributes, in line with the following conceptual matrix:

		Adversary	
	Russia	China	Non-state Proxy
Actions to Deter			
Conventional attack			
Cyber attack			
Economic pressure			
Norm violation			
…			

Below are a few examples of the types of key questions the team has examined in creating a more granular, causal understanding of the kinds of actions that effectively deter an adversary, particularly in a gray zone environment.

Type of Adversary

How does the type of adversary affect the U.S. willingness to react to an unfolding crisis, holding other factors constant? Is the U.S. more inclined to refrain from action to deter hostile actions, depending on who commits them?

On the most fundamental level, this involves assessing the reactive threshold – combining action detection capability with political will and institutional ability to react. The question also highlights one of the key challenges for the U.S. in deterrence in the gray zone: adversaries exploiting the "seams" between different types of actors. For example, China's use of fishermen who are clearly civilian non-combatants to seize territory in the South China Sea and intimidate other nationals in those waters poses a challenge – what is the appropriate U.S. deterrent response, lacking any analogous force to deploy? Similarly, the U.S. faces a challenge in using naval power to deter the aggressive actions carried out by the China Coast Guard, because of the perception (and legal reality) that introducing military assets would be a clear escalation. Methodologically, the project has used experiments involving different hypothetical crisis vignettes to assess the differences in perceptions of threat depending on the actor carrying out actions. This approach has been most effective in dealing with strategic decisions where empirical data is ambiguous or unavailable.

Type of Action

Can improvements to the mutual understanding among actors regarding specified actions or behaviors improve the effectiveness of deterrence? Can actions or behaviors in one domain be used to deter actions or behaviors in another domain (i.e., cross-domain deterrence)? What is the actor's cost-benefit analysis, in terms of taking some action versus not reacting at all? Methodologically, by decomposing the problem of managing escalation along the axis of potentially deterrable actions, the research team has collected empirical data for the core elements of the decision-making calculus. Where data was lacking, experiments were designed to present the scenarios to be examined, hypothesizing the nature of the scenario, and allowing for subjects to respond to multiple types of deterrence actions, measuring their relative effectiveness.

Type of Impact

One size deterrent definitely is not fit for the entire spectrum of potential gray zone adversaries or actions to be prevented. What tools and mechanisms are available to assess the impact of a signal targeted to the adversary / action presently at the fore, upon the rest of the deterrent matrix? Methodologically, after isolating the theoretical indicators of necessary caution and success, we have used elicitations, TIN modelling, and quantitative analysis to test the various deterrence strategies in a gray zone environment in order to highlight both the opportunities and limitations of the deterrence tools presently available to the U.S.

5. Four-factor Model of Challenger and Defender Interaction in Gray Zone Crisis

At the core of our research effort is an attempt to understand, model, and identify appropriate tools for shaping the interaction between a challenger and a defender in a gray zone crisis. In this project we look at two competing explanations for why states choose gray tools for instigating or managing crises, as opposed to resorting to conventional warfare: power differential and regime type. Do resource constraints based on power asymmetry make it infeasible to engage an adversary using conventional violence, or are gray tools used to deliberately challenge the prevailing international order? On the one hand, operating below the threshold of armed conflict, with tools like information and political warfare, or espionage, may level the playing field for weaker states, by taking competition out of the realm of military power. On the other hand, certain regime types willing to disregard international legal and behavioral norms may use gray zone tactics to gain advantage over those adhering to these norms. Furthermore, consistent probes and challenges to these norms that go unmet may gradually depreciate them. The four-factor model below (see Figure I.2) presents a systematic path analysis behind this logic.

Figure I.2. Four Factor Model.

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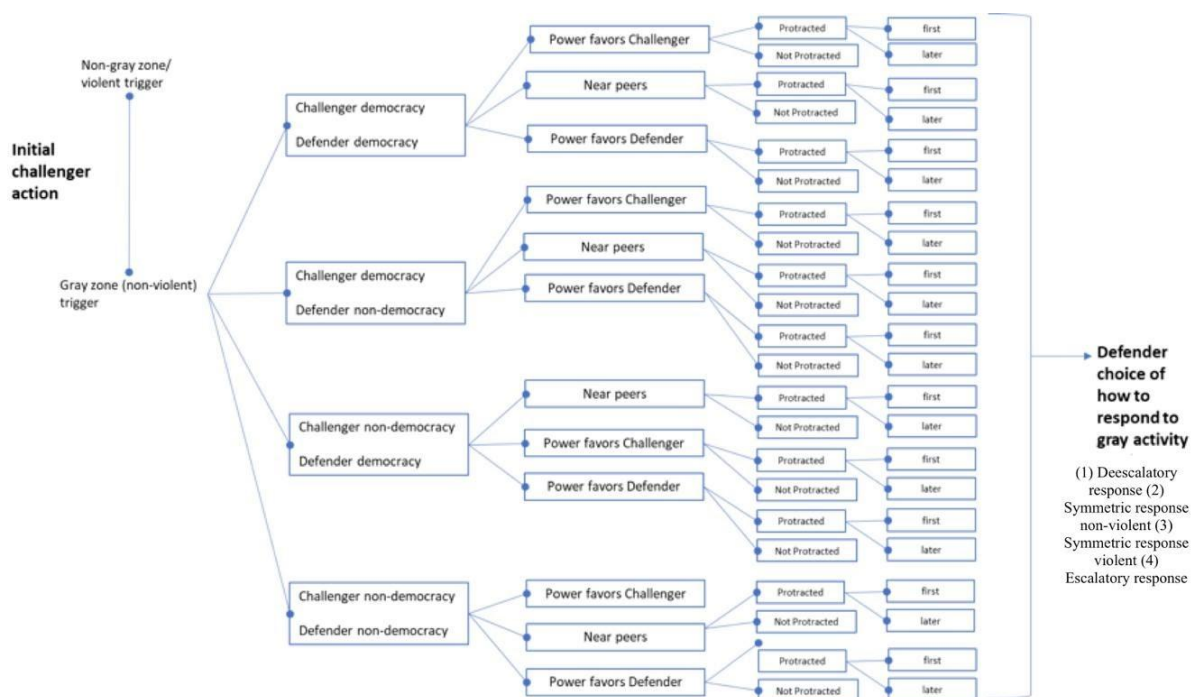
Consider a sample crisis path: a challenger launches a crisis with a non-violent trigger, which we interpret as a ray zone action; a challenger is a non-democracy while the defender is a democracy; power discrepancy favors the challenger; this crisis is part of a protracted conflict and it is the first one in a series of crises. Under the given circumstances, we look first at the defender's preferences for a response: de-escalate, match with violence or non-violence, or escalate the crisis further. In the quantitative portion of the project, we look at historical behavioral patterns, using the International Crisis Behavior (ICB) data for the period 1945-2017. In elicitations we asked the general public to make such a response choice in a hypothetical vignette based on a sample of actual crises as captured by ICB.

6. Defining and Measuring "Success" for the Practitioner

A key question that the proposed project has to tackle is what is defined as "success" in the rich and nuanced environments of deterrence we explore? Traditional general deterrence measures success as avoiding a war (typically, a nuclear war), or preserving the status quo (which may be problematic to establish, depending on which historic point you start with). Beyond that, we must be careful to establish benchmarks against which the project's analysis can work in determining whether one particular deterrent tool was "more effective" than another, and whether an adversary was "more deterred" under two or more hypothetical scenarios.

In operational military planning, the Decision Calculus Construct was developed as a concept on how to influence the decision calculus of key regional actors - based on the Deterrence Operations Joint Ops Concept (DO-JOC). The scheme below shows the balance between the (1) costs and (2) benefits of action versus the (3) costs and (4) benefits of restraint. In a conflict – including a gray zone crisis – this model offers an approximation of each party's decision calculus. From an escalation management perspective, this presents four measurable levers for influencing behavior across domains. In addition, the fifth, and perhaps most overlooked influence vector, is the actor's perception of the competitor's decision calculus. By devising measures and strategies for denying the benefits of action that departs from the status quo or imposing costs for doing so, the U.S. can influence the behavior of state and non-state actors in a gray zone crisis.

Figure I.3. Actor Decision Calculus Model.
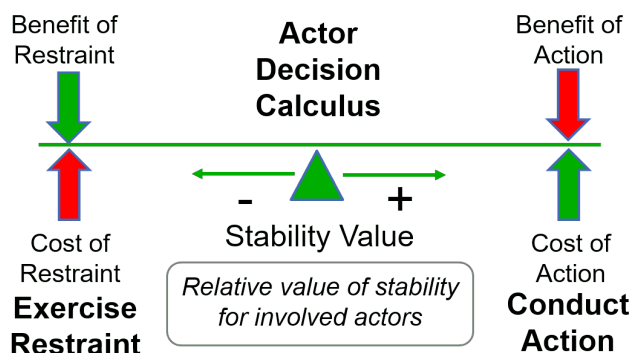
Adapted from Deterrence Operations Joint Operations Concept (DO-JOC)

Adversary's understanding of the *benefit of action* versus *cost of action* calculus is critically important to determining how best to influence the decision-making calculus of adversaries.

Success is not solely a function of whether adversaries perceive the costs of a given course of action as outweighing the benefits. Rather, adversaries weigh the perceived benefits and costs of a given course of action in the context of their perceived consequences of restraint or inaction. For example, deterrence can fail even when adversaries perceive the costs of acting as outweighing the benefits of acting if they believe the costs of inaction are even greater.

One additional factor profoundly influences an adversary's decision calculus: their risk-taking propensity. An adversary's risk-taking propensity affects the relationship between values and probabilities of benefits and costs in the process of reaching a decision. Risk-averse adversaries will see very low probability but severe costs as a powerful deterrent, while risk acceptant adversaries will discount costs in their pursuit of significant gains.

Finally, an actor's decision calculus may be influenced by their perception of the other actors' decision calculus and the time they believe is available to reach a decision. It is important to note that perceptions are more important to an actor's decision calculus than the actual facts underlying these perceptions. Measuring adversary perceptions of the U.S. would be based on their public statements, visible actions, and communications gathered through intelligence collection.

7. Methodology: Multi-Method Research Design

The multi-pronged approach of this project is based on the need to use the right analytic tools to answer different kinds of questions. The first, deductive modeling, is an important theory-building launch platform for revisiting the classic concepts of deterrence and escalation management and integrating them with literature from other relevant fields (political psychology, mediation, etc.). The second, empirical analysis, provides robustness to theory, where historical, observational data is either available or can be collected. The third, experimental approach, complements the analysis, engaging with the key conceptual notions and scenarios not covered by data. The fourth approach, computer modeling, helps to increase the robustness of the findings through iterations repeatable thousands of times, and to provide explanatory power to issues of particular relevance to decision-makers, varying scenarios to explore outcome sensitivity to inputs. The innovation in this multi-pronged methodological approach is not only in employing techniques previously rarely used for the study of deterrence questions, but also in combining these techniques to reinforce the validity of the findings.

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Chapter 1: International Crises and the Gray Zone: Tracing Crises Through History

Egle E. Murauskaite

Introduction

Crises in the "gray zone" between traditional modes of statecraft and armed conflict are among the defining characteristics of the international system today. Indeed, direct and overt state vs. state war has become increasingly rare over the past thirty years. Arenas such as trade, communications, even art and entertainment–previously reserved for non-violent competition –are increasingly used for interference in media or elections, use of non-state proxies for political violence, and flouting of international law with provocations that threaten the existing geopolitical order and pose significant challenges to the credibility of deterrence. As a result, decision makers desiring to avoid armed conflict are left with the toolkit of immediate deterrence, more precisely — that of escalation management. To be effective in this arena, decision makers need a more nuanced understanding of ways to address the type of conflict that threaten to unravel traditional crisis resolution mechanisms; namely, managing conflict escalation in the gray zone between normal interstate interactions and armed conflict.

This chapter offers an overview of international crises over the last thirty years that impacted U.S., Chinese and Russian interests — many of which are discussed more extensively throughout this report. Each of these last three decades can be described by the different types of crises that were most urgent and internationally significant at the time (see Figure 1.1 below). The analysis starts with the 1990s and the paradigmatic shift brought about by the end of the Cold War. Next, the 2000s are explored, where the three powers each had their own challenge from *violent non-state actors* (VSNA). Finally, I turn to the turbulent 2010s, during which the definition of what constitutes war, and non-war (colloquially, peace) continues to blur.

1. Global Powers in International Crises: Historical Review

Figure 1.1 Key International Crises 1990-2020.

Key International Crises 1990-2020				
Solidarity government in Poland	Aug-89			
Berlin wall	Nov-89			
Havel president of Czechoslovakia	Dec-89			
		1990		
Baltic independence	May-90			
Saddam invades Kuwait	Aug-90			
		Dec-90	USSR collapse	
		Jan-91	U.S.+35 country coalition strikes Iraq	
Yugoslavia disintegrates	1991-2			
Rwanda genocide	1994	Dec-94	First Chechen war	
Dayton peace accords	1995	Feb-95	Miscief Reef incident	
		1995-1996	Taiwan Strait crisis	
		1999	NATO airstrikes against Serbia	
		1999-2009	Second Chechen war	
		2000		
Al Qaeda attacks the Twin Towers	Sep-01	Apr-01	Hainan Island EP-3 incident	
		Oct-01	U.S. in Afghanistan against Taliban	
Nuclear tensions with Iran	2003	Mar-03	U.S.+UK in Iraq looking for WMD	
		Apr-07	Bronze soldier crisis in Estonia	
		Aug-08	Russia invades Georgia	
		2010		
Arab Spring starts in Tunisia	Jan-11			
Arab Spring in Egypt and Yemen	Feb-11			
Start of civil war in Syria	Mar-11			
NATO airstrikes against Libya	Oct-11			
		Jul-13	China in Senkaku islands	
		Feb-14	Russia annexes Crimea	

1.1. The 1990s: Democracy and Nuclear Proliferation

The 1990s saw tremendous **state-level** turbulence in Europe as the Cold War came to an end and a number of communist regimes collapsed, giving birth to new states. This has produced a spectrum of **territorial disputes** (from legal battles to active wars) as these newly independent states were looking to define themselves in relation to each other, to their former Soviet master (now Russia), and in relation to the former enemies of the regime in the West – the United States. It is worth noting that detailed descriptions of the crises discussed below can be found in the International Crisis Behavior (ICB) database[1], and the most significant gray zone crises involving Russia and China are discussed as detailed case studies in Chapters 8 and 9 of this report.

While **Russia** was finding its footing as a new state, selectively drawing on the Soviet legacy over the decades to come, it had perhaps the most direct involvement in most of the crises of

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[1] https://sites.duke.edu/icbdata/.

the 1990s, as its former sphere of influence disintegrated. The "internal" losses as the USSR split apart gave birth to new states in Eastern Europe and Central Asia with a relatively limited use of Russian force. Instead, the primary tools of influence here involved continued security pressure, as well as significant exertion of economic power (through blockades and gas supply manipulation), and political leverage (through legacy political apparatus). The satellite state losses external to the USSR were more of a mixed bag: states territorially closer to the West – such as Eastern Germany, Czechoslovakia, and Poland – also slid away relatively painlessly, while states closer to Russia's Eastern neighborhood, like Chechnya and Yugoslavia, saw much more violent fates. Indeed, the latter two conflicts arguably also **laid the groundwork** for a number of non-state actor crises Russia was to face in the following decade.

The first and second wars with Chechnya, instead of bringing a swift boost to the Russian leadership and country morale, had bogged it down in a nearly two decades conflict – not dissimilar to the arduous USSR warfighting in Afghanistan during the Cold War. In addition, the Chechen wars have produced the so-called Black Widows – female suicide bombers confronting the Russian forces (see, e.g., Nivat, 2006), as well as civilian targets. The 1998 Serbia-Kosovo war, produced by the unfolding dissolution of communist Yugoslavia, was the crisis that had pitted Russia against the West in perhaps the most direct manner since the end of the Cold War. Interestingly, Russia's support for Serbia in the face of NATO aerial bombardments had earned it so much local appreciation that hundreds of Serbs, who had fought in that war, were happy to bring their skills to support pro-Russian forces in Ukraine 17 years later (see Murauskaite, 2020).

Meanwhile, looking at the **U.S.**, the 1990s had propelled it into a global power status seen as a unipolar moment marking "the end of history" – as discussed in section 2.2 of this chapter. Perhaps the most significant, and arguably the most successful, answer to the call for the U.S. to police the global order was the First Gulf War – a U.S.-led armed response to Iraq's invasion of Kuwait. It was a swift and technologically advanced territorial incursion by a broadly supported international coalition, which included key regional players (thus avoiding the shadow of imperialism), as well as Russia.

On the heels of this success, American diplomats got involved in another conflict - brokering a 1995 Dayton peace agreement among the new Balkan countries fighting after the disintegration of Yugoslavia. Subsequently, the U.S. also participated in the abovementioned NATO air strikes during the Serbia-Kosovo crisis. It is also important to note another crisis related to this campaign, which erupted when the U.S. bombed the Chinese embassy in Belgrade. While for the U.S. the incident seemed like an honest mistake in getting intelligence on target coordinates, China saw it as a deliberate act of aggression, forming an institutional view of wanton U.S. military behavior abroad that has been a consistent Chinese narrative since.

Around the same time, there were strong international calls for U.S. involvement in another crisis – the genocide in Rwanda – but here the limits of capacity for simultaneous international action (or more accurately – political attention) were starting to emerge. Thus, while for Russia the crises of the 1990s were a scramble to maintain influence through its former sphere of influence, for the U.S. it was a series of relatively minor **international military interventions** in support of the new world order.

Another significant feature of the crises in the 1990s was the changing nature of **nuclear** concerns: while none of them erupted into a hot crisis, they gradually did alter the picture of the international security environment considerably. Furthermore, a significant base of strategic conflict framing theory that was relied upon throughout these last three decades has come from the nuclear age, and is only now beginning to gradually fade away – so it is important to keep this background in mind. During the Cold War, the center stage was fraught with nuclear tensions between the two superpowers – the U.S. and the USSR. The end of this competition opened the door not only to state-level nuclear reductions, withdrawals, and arms control negotiations, but also hastened fears over "loose nukes" in the former Soviet Union falling into the wrong hands. Thefts and trafficking of radioactive material throughout, and out of, the former communist states became a major concern for European (and increasingly also – American) authorities (see, e.g., FAS, 1996). In addition, there were growing concerns about scientists and engineers with nuclear-weapons'-relevant expertise selling it to the highest bidder and thus contributing to the spread of nuclear weapons. Indeed, some of the newest additions to the nuclear state club – Pakistan (1998) and North Korea (2006) – as well as several nuclear aspirants (Iran, Libya, and Syria) have made significant progress in the development and operationalization of their programs thanks to the spread of knowledge and materials through the black-market networks that weaved through Europe in the 1990s.

Of the three global powers, for **China** the 1990s had quite a different focus. China spent much of the Cold War antagonizing both the USSR and the U.S., although in the 1970s Washington sought a rapprochement with Beijing to balance against Moscow. The winds of democracy blowing through Europe had briefly touched China with the Tiananmen square student protests in 1989, but the violent suppression and subsequent quest for regime continuity and economic growth had limited the country's external reach. Still, by the mid-1990s China found itself close to an armed conflict with the U.S., in contrast to Russia, which – while not pleased with American meddling in what it considered its back yard – attempted a thaw in relations during that decade.

The Taiwan Strait crisis unfolded during 1995-1996, when China conducted a series of missile tests and naval exercises near the waters of Taiwan – in response to the Taiwanese president's visit to the U.S. (which suggested a lapse in U.S. accommodation of the One-China policy). Increasingly aggressive Chinese exercises were disrupting international flights, as well as commercial shipping through the strait. In a massive show of naval power, the U.S. sent two aircraft carrier battle groups to the region. This crisis shaped how a generation of Chinese military, foreign policy thinkers and professionals view the importance of naval power, and the significance of the U.S. treaty relationships in East Asia.

Another dispute known as the "Mischief Reef Incident" was perhaps the first in what became a series of China's territorial disputes in the South China Sea that gradually evolved into gray zone crises over the next two decades. This incident concerned a reef to the east of the Spratly Islands of the South China Sea - within the continental shelf of the Philippines. In 1994, China started building a structure over buoys turning this otherwise high-tide-submergible reef into an island. In February 1995, China raised a flag over this reef and positioned armed ships to defend it, causing an international crisis. This marked the revival of China's aggressive territorial behavior in the South China Sea after a hiatus since the 1970s, and also was China's first military confrontation with any ASEAN member (other than Vietnam). It became a defining moment for modern security relations between China and the Philippines, and in turn revived the military cooperation between the Philippines and the U.S.

1.2 The 2000s: VSNA and WMD

Although Al Qaeda's 9/11/2001 attack on the Twin Towers in New York City, the Pentagon in Washington, D.C. and the foiled attack that crashed near Shanksville, PA (discussed below) was the defining crisis of this period, the decade started with a flare up in tensions between the U.S. and China over surveillance. In April 2001, a manned U.S. intelligence aircraft (EP-3) was intercepted by two Chinese fighter aircraft around 110 kilometers from Hainan Island. It collided with one of the Chinese aircraft, killing the pilot, and downing the American plane and crew on Hainan Island – where the crew was promptly captured and interrogated. Coming as a big test at the start of the Bush administration, the incident set a lasting mutually hostile tone regarding close-in surveillance, and heightened the tensions over China's territorial waters' disputes (the latter escalated to new heights during this decade).

Turning to the central theme of the early 2000s, the gradual rise in prominence of **violent non-state actors** (VNSA) could already be detected in the suicide bombings carried out by Lebanese fighters in the 1980s. However, VNSA have truly gained significance on an international scale when 9/11 ushered in a new era of security crises and concerns (culminating a decade later in the establishment of a state-like ISIS' Caliphate in 2014-2019). While much of the world seemed to stand together with the U.S. following the 9/11 attacks, the relationship drawn by the U.S. president between Al Qaeda and the states supporting it was seen as tenuous at best. The subsequent U.S. military interventions in Afghanistan and Iraq in pursuit of Al Qaeda supporters appeared constructed to finish the job of securing the historic areas of unrest and resistance – rather than responding to the threat they were being tied to. Perhaps there were hopes of succeeding in Afghanistan where the Soviets had failed, and the popular support for neutralizing Iraq certainly seemed to linger from a U.S. mission so popularly received in 1991. Alas, persistent, violent U.S. military action over the past decade soured the international community's regard, and neither of these lengthy (and continuing) interventions received much support.

Still, the concern over international terrorist, as well as criminal, networks (and their potential overlap) did strike a chord in the international community. A wave of Islamic radicalization was spreading through Europe - with citizens leaving to fight in support of Al Qaeda and other networks, and seasoned fighters flocking into Europe to wreak havoc and recruit local members for localized attacks. Events like the 2004 Madrid train bombings or the 2005 London bombings, actualized the VNSA threat for European audiences. Ironically, they also depleted European political and military support for the U.S. interventions that seemed to feed the animosity of these groups.

In addition, Russia and China used the threat of terrorism to justify their own counter-VNSA operations to persecute regime opponents, dissidents, and minorities by branding them as terrorists. Nevertheless, as noted above, there was also a notable rise in genuine anti-Russian VNSA, like the Chechen Black Widows (particularly in 2000). Similarly, China faced a significant uptick in suicide bombings in the Uyghur region. It is worth noting that the Shanghai Cooperation Organization, established in 2001, was Beijing's first attempt to lead an international organization, and it quickly became one of the tools for counter-terrorism training in the region (with Russia also providing frequent instruction). Both China and Russia continued to violently suppress the quest for independence of the Uyghurs and Chechens, respectively, throughout the 2000s. Still, in contrast to the U.S. approach to

countering Islamist VNSA in the Middle East, neither of them made those crises centerpieces to their foreign or security policy. [2]

Similar to the growth of the VSNA problem from the 1990s, the **nuclear proliferation** problem mushroomed into a number of diplomatic crises and rising security concerns through the 2000s. With Iraq neutralized as a potential threat, or as a safe harbor for weapons of mass destruction (WMD), starting around 2003, U.S. tensions with Iran began to escalate over its nuclear program (stirred up in no small part by Israeli concerns). In addition, lingering suspicions and guesswork surrounding the North Korean nuclear program exploded in a flash of that country's nuclear test in October 2006. Both of these programs had benefited considerably from the black-market network of sharing relevant materials and expertise, headed by Pakistan's A.Q. Khan – which was publicly outed around 2004. Indeed, in 2007, tensions reached a new height when Israel bombed a suspected reactor site in Syria, after first taking out the country's aerial defenses using cyber means. Moreover, Israel's killings of Iranian nuclear scientists (as well as others suspected of assisting Iran) in an attempt to stall the program were starting to push the norms of counter-proliferation, as well as to blur war-peace boundaries. Meanwhile, throughout the 2000s, the U.S. has been putting its allies in Europe and Asia under increasing pressure to track down and curb illicit trafficking in nuclear-weapons-relevant materials, expanding the export controls to dual-use items, as well as pressuring Europe to curtail its (at the time extensive) trade and security ties with Iran through ever-expanding rounds of sanctions.

While the U.S. was keeping its eyes largely on the Middle East, and pushing its allies to do likewise, Russia was gradually embarking on an expansionist streak in its former European sphere of influence. In April 2007, a crisis erupted in Estonia when the government decided to move the Soviet era fallen soldier monument from the city center to a cemetery, and Russian-backed hackers put the country under a cyber-blackout for several days. Estonia being a Baltic NATO member state was not subjected to further military action, but this manner of deploying cyber offensive tools put the Baltic region on high alert. In addition, the incident was a major boost in the development of legal and normative thinking about cyber offensive campaigns – especially proportionate responses to them via non-cyber domains.

During this period, Georgia saw an actual incursion of Russian military forces in August 2008, under the pretext of keeping peace. The timing of the war in Georgia was also much to the chagrin of China, effectively overshadowing the Beijing Olympic games. Tensions between U.S. and Russia over Europe soon escalated to missile posturing: Washington's plans to deploy a missile defense system in Poland and the Czech Republic in 2007 to reassure the Eastern allies were matched by Russia's threat to deploy short-range nuclear-capable missiles to Kaliningrad in 2008.

It is against the backdrop of these events that the newly elected President Obama sought a reset in U.S.-Russia relations. The high point of this policy was Obama's 2009 speech at the NATO summit in Prague – calling for mutual nuclear arms reductions and cooperation in fighting nuclear terrorism. This rapprochement was met with skepticism from Eastern European allies, who continued to regard Russia as increasingly belligerent. Yet, it took the

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[2] Nevertheless, states, such as China and Russia, have successfully adopted certain VNSA tactics to adapt to challenges posed by U.S. military dominance. In turn, as VNSA have gained access to technology and resources, and they have adopted tactical features (such as precision strike) previously only accessible to states (see Kilcullen, 2020).

occupation of Crimea, described below, for the West to turn this posture around and call Russia an adversary.

1.3 The 2010s: the Arab Spring and Peace is War

During the previous decade the Middle East had become a focal point of Western security concerns ranging from Islamic radicalization to nuclear proliferation. Historically, the U.S. had been cultivating relationships with many of the region's non-democratic rulers in the interest of stability. But in 2011 the region exploded into a series of anti-regime protests – the Arab Spring. The public that had been suffering deprivation and oppression for decades was becoming increasingly and acutely aware (through education and social media) of alternative lifestyles that include wealth and opportunities. The spread of mobile phones and internet telephony had been near ubiquitous in many of these developing countries, which gave new significance to social media as a tool for rapidly mobilizing masses of followers from online action to protests in the streets.

The spark was literally lit in Tunisia, where a poor fruit vendor self-immolated in despair about the government taking away his livelihood – inspiring thousands of similarly deprived Tunisians to march, and resulting in regime overthrow in January 2011. Within days, crowds inspired to demand a change in governance had taken to the streets in Egypt, Yemen, Libya, Syria, Saudi Arabia, and Jordan, and by February the whole region was awash with violent clashes between pro- and anti-government forces.

Egypt also ended up overthrowing its president Hosni Mubarak, only for his successor soon to be replaced by the even more notorious military regime of Abdel Fattah Al-Sisi. Notably, competition for influence and ties with the new regime of this significant Arab powerhouse remains intense between the three global powers. The U.S. continued to supply arms to Al-Sisi's military regime. In 2015, Russia struck a landmark deal to build Egypt's first nuclear power plant (the international community had long held off on similar deals with Egypt over proliferation concerns), along with an extensive military equipment cooperation package in later years. Meanwhile, China became a significant drone supplier to Egypt, and the Suez Canal became a significant point in strengthening China's Belt and Road Initiative.

Turning to the other hotspots of the Arab Spring, Libya's dictator Gadhafi looked like he might cling to power, until France initiated a NATO-led coalition in October 2011 to conduct an aerial campaign against Gadhafi's forces. The campaign was built around the concept of Responsibility to Protect (R2P) – similar to NATO's mandate in the Serbia-Kosovo conflict. It also marked a serious step-up in France's military engagement in its former colonial territories, previously shunned to avoid negative post-colonial sentiment (a mission to Northern Mali followed in 2012). Many dictatorial regimes outside the Middle East watched these developments with considerable unease: North Korea and Iran seemed to draw a lesson that giving up nuclear ambitions like Libya had done could open you up to an international intervention, while China and Russia grew concerned about potential R2P interventions in their own backyards (or even territories). It is also important to note that, as of 2021, the crisis in Libya continues, with the UAE and Turkey competing for regional influence by providing advanced military equipment and training to local factions. Similarly, Russia is using private military contractors – like the Wagner Group – to station military assets in Libya. This conflict continues to provide ample examples of the use of gray zone tactics, like use of proxies, and is reflective of the evolving warfighting norms and tactics of the regional powers.

Meanwhile, the Syrian people were faced with perhaps the gravest of consequences, as the initial uprising against Assad's regime in March 2011 turned into a civil war, with a growing number of international backers supporting multiple competing local factions. As Syria was known to possess chemical weapons, in August 2012 President Obama called their potential use a red line (which would presumably trigger U.S. intervention). However, when reports of the Assad regime using chemical weapons against protesters started to mount, the U.S. seemed to backtrack. Given the significant normative changes in international conflict behavior discussed above, the use of chemical weapons against civilians was a notable departure – a behavior not seen since Saddam Hussein's Iraqi forces had deployed them against Iran (in 1988) and the Kurds (in 1991). Russian and Chinese vetoes at the UN Security Council ensured that the R2P – which seemed like an emerging norm until then - was not invoked. It is also worth noting that the Syrian crisis helped Russia find the way back to the table of global peace brokers, extending its reach beyond its immediate neighborhood.

Raging crises and instability throughout the Middle East continued to provide fertile grounds for a growing number of radical Islamist organizations to recruit and expand their territorial reach. Indeed, the Islamic State (ISIL) was able to proclaim a "caliphate" over territories it had secured in Syria and still-war-torn Iraq in 2014 – a monumental VNSA achievement. Another noteworthy VNSA "milestone" was ISIL's unprecedented efficiency in using information operations – a long way to come since the Al-Qaeda days of tape-recorded leader messages distributed through a few confidants. Singer and Brooking (2018) argue that the key to ISIL's success was its ability to match modern marketing technologies with ancient theology via the use of social media to recruit huge swaths of millennials to join or support their cause (by financial contributions or online content sharing). Western states are still struggling to match the level of authenticity or virality of ISIL messaging.

Finally, it is also important to recognize the impact that the MENA security crises of this decade ended up having on Europe, largely through the massive wave of refugees starting in 2015. Furthermore, Turkey soon turned to using these migration flows as a political pressure tool against the EU. Sharing the burden of the refugee crisis and questions regarding their integration produced major rifts *among* EU member states over the funding of care and social services to refugees. These grievances gave a significant boost to radical nationalist factions in European politics *within* member states, such as the rise of Hungary's Victor Orban and Poland's Law and Justice (PiS) movement.

While the Middle East was in flames, both China and Russia engaged in expansionist campaigns using various gray tools backed by traditional military, economic, and political power. As these events are discussed in great detail in the case studies of Chapters 8 and 9, here they are noted only briefly – but their significance cannot be overstated.

At the end of 2013, anti-government protests flared up in Ukraine's Maidan square, with the country split rather evenly between the backers of closer integration with the EU, versus with Russia. The internal crisis soon turned international as Russian forces (in unmarked uniforms) used the momentum to enter and take over Ukraine's Crimea peninsula in March 2014. The campaign continued with Russian-backed separatists taking over Luhansk and Donetsk over the next few months. By July, the crisis deepened when Russian-backed rebels shot down a commercial Malaysian aircraft mostly carrying Dutch citizens. Officially, Russia was not at war with Ukraine, and its use of force in an unofficial capacity sparked controversy within NATO as to whether this was armed conflict or something else. The

NATO summit in Warsaw in 2016 marked a turning point in Western relations with Russia: Russia was identified as an adversary, and NATO stationed four multinational battalions in Eastern Europe to deter further territorial advancements.

Meanwhile, since 2010, China had participated in increasingly intense flare-ups over the contested Senkaku Islands. A territorial dispute involving China, Japan, and Taiwan involved a number of increasingly aggressive incidents where fishing vessels and other naval assets were destroyed by China or North Korea. In 2012, Japan announced it was buying and nationalizing the Senkaku Islands, causing a massive wave of anti-Japanese protest in China. That same year China presented its claim to the Senkakus at the UN, contesting Japanese rule, and in 2013 China announced an Air Defense Identification Zone (ADIZ) over this territory which it patrolled with fighter jets to restrict non-commercial access. Nevertheless, the U.S. subsequently flew several nuclear capable B-52 bombers over the area without resistance, and South Korean and Japanese aircraft were also not intercepted.

In addition to the use of gray zone tactics, several of the crises discussed here had another aspect in common: the use of **drone** strikes. Initially, the U.S. was at the forefront of the extensive use of drone strikes for targeted killings of suspected terrorists in Afghanistan, Pakistan, and particularly Yemen, in 2001. Being a relatively new technology at the time, it stirred considerable ethical and legal debate - particularly concerning the implications of discarding territorial boundaries between war and peace (when combat operations are conducted from a distant territory), as well as the boundary between civilian and military functions in conflict. While the U.S. and Israel have been the main drone operators in the Middle East for over a decade, by mid-2015 Turkey had developed its own drone program and the number of strikes it carried out in 2020 was second only to that of the U.S. Indeed, in 2020, Turkey's increasing confidence in, and reliance on, drone strikes afforded significant advantages to the factions it backs in the conflicts in Syria, Libya, and Nagorno-Karabakh (Hofman, 2020). In addition, the Iranian program is worth noting here as the key drone provider to VNSA – such as Hezbollah, and Houthi rebels in Yemen. Over the past two decades, this initially controversial and cutting-edge technology has become a staple in a growing number of conflicts, and is no longer just a tool of global or regional powers, but is available to VNSAs, and indeed individuals.

In closing the historical review, the last decade – just like the 1990s – has seen the resurfacing of independence movements against non-democratic regimes. Only the technological and informational background against which they are unfolding has become considerably more advanced. Conventional, state-versus-state, boots-on-the ground types of conflict are increasingly rare among major powers. Instead, conflict is increasingly conducted through a growing range of tools intended to remain below the level of armed conflict in the so-called gray zone between peace and war. These are discussed in great detail throughout this report.

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Chapter 2: Gray Zone: Defining the Space In Between

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The international crises recounted in Chapter 1 were accompanied by a series of strategic reviews in the U.S., China and Russia that recalibrated how strategists in each thought about the 21st century international system. While the U.S. had been engaged in decades of operations countering VNSA, Russia and China had both developed new capabilities, and gathered important information watching the U.S. defense apparatus in action. Around 2014, U.S. leaders were becoming increasingly frustrated with what appeared to be novel forms of competition with China and Russia. The U.S. found itself struggling against self-imposed limitations stemming from national security concepts that had been developed either to deter and defeat a single adversary (nuclear-armed Soviet Union), or to defeat multiple small VNSAs. What was happening in the world at the time simply did not fit either model, and there was a general sense that the U.S. was losing the international leverage and military dominance it had assumed since the end of the Cold War twenty-five years earlier, to a "rising China" and a "resurgent Russia." The problem U.S. leaders faced was not the lack of doctrine and concepts of different forms of armed conflict, but the lack of an overarching intellectual framework that could provide the basis for developing a policy appropriate to the increasingly diverse types of activities and potential threats in the space between war and peace (Clark, 2016). One of the first hurdles was defining the "new threat"[3] and the environment in which it emerged.

Two developments in the 2010s served to highlight for U.S. leaders how much the global security environment had changed during the previous two decades. By the early 2000s both Russia and China were well into programs to modernize and expand their military capabilities, and both had become increasingly assertive in foreign affairs. In China's case this included ambitious outreach programs such as the Belt and Road Initiative (BRI)[4] as well as more localized efforts to expand its global influence and gain access to new markets beyond the Asia-Pacific region. Russia's "outreach" was harder to detect, coming largely in the form of increasingly bold disinformation campaigns and cyber-attacks. In the early 2000s the primary targets of major attacks were former Soviet republics and satellite states. By the mid-2010s targets of major attacks included political and media platforms in the U.S. and Europe as well.

Two incidents have become emblematic of the challenges posed by the "new threat". In 2014, Russian troops wearing uniforms without insignia seized control of the autonomous Republic of Crimea and other de facto Ukrainian territories. The Kremlin initially denied that the forces — the so-called "little green men" — were Russian, and then indicated that they may be Russian soldiers who had decided to take a holiday in Crimea. This hardly fooled anyone, and by 2015 President Putin was claiming full credit for the presence of Russian forces in Crimea. It is an interesting case of a state attempting to use its own defense force as a proxy—the operations were not covert; they were in plain sight, but simply denied.

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[3] There continues to be fulsome debate amongst U.S. policymakers and scholars over the extent to which Chinese and Russian activities genuinely represent a new phenomenon.
[4] Among other national objectives the Belt and Road Initiative is intended to solidify China's role as a world power, help sustain access to the resources needed to sustain the country's economic growth and development, and provide investment opportunities for Chinese companies (Dig Mandarin, 2019).

As China's economy became more trade-centric and outward-focused, its dependence on free access to important shipping lanes in the South China Sea grew. At about the same time, concern among U.S. defense officials over the aggressive use of non-People's Liberation Army Navy blue-hulled maritime militia — merchant ships, and civilian fishing boats — was rising. According to Kennedy and Erickson (2017) and Amos (2020)[5] the crews of these fishing boats and maritime militia — dubbed the "little blue men"[6] were so closely networked into the Chinese Navy command and control that they were in effect "China's Third Sea Force." The ostensibly civilian boats frequently intimidate and harass foreign navy and civilian vessels and operate in ways that would be seen as unprofessional, reckless and extremely provocative if conducted by PLAN forces. The result however, is the same in either case. The blue boats allow China to defend its maritime interests and assert control of strategic waters while maintaining a level of plausible deniability of any PLAN direction. The objective is to achieve Chinese strategic goals while avoiding direct, armed confrontation against another state (Poling, 2019).

What appeared in Washington as increasingly assertive Chinese and Russian challenges highlighted conceptual gaps in U.S. defense thinking. The U.S. has concepts, doctrine, and guidance that cover a wide range of military operations. However, these were challenged by activities with ambiguous intent or affiliation, and that generally stayed below the level of armed conflict. While the types of activities—the use of proxy actors, military deception, broadcasting propaganda or manipulating information—have long histories in international relations, terms such as "asymmetric conflict,"[7] "unconventional warfare,"[8] "irregular warfare,"[9] and "hybrid warfare"[10] that were used to describe the same events, tap into some, but not all, of the challenges with which U.S. policy makers were grappling.

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[5] The Chinese Communist Party established a maritime militia soon after the Chinese civil war to help defend its coasts from threats, including the Kuomintang who had fled off-shore. Its focus had been close to shore until the economic opening, at which point the entire Chinese civilian fleet grew to service the country's export focus. As it became a larger, stronger force, the militia took part in China's disputes with neighboring states over islands in the South China Sea.

[6] Given the earlier experience with Russia's little green men, the crews of these Chinese boats were soon dubbed "little blue men" reportedly by Andrew Erickson of the U.S. Naval War College (see Tisdall, 2016).

[7] Asymmetric conflict, as the name implies, refers to power disparities between combatants. Traditionally, the term has been used to refer to confrontations between state and non-state actors, or confrontations involving proxies (e.g. t the PLA Maritime Militia against the U.S. Navy). While it can also apply to state vs. state confrontations in cases of substantial power disparity, these cases are less clear.

[8] In U.S. doctrine "unconventional warfare" refers to states assisting resistance movements and insurgencies "to coerce, disrupt, or overthrow a government or occupying power by operating through or with an underground, auxiliary, and guerrilla force in a denied area" (Joint Publication 3-05, Special Operations). This can be considered another form of gray zone warfare by proxy use.

[9] "Irregular warfare" refers to still another gray zone strategy: targeting civilian perceptions to "influence populations and affect legitimacy…to erode an adversary's power, influence, and will" (Irregular Warfare Annex to the National Defense Strategy, 2020).

[10] While there is no official definition of "hybrid warfare," "hybrid threat" is defined in the Army Field Manual 1-02.1 as "the diverse and dynamic combination of regular forces, irregular forces, terrorist forces, or criminal elements unified to achieve mutually benefitting effects." Army Field Manual, Operational Terms, November 2019. https://armypubs.army.mil/epubs/DR_pubs/DR_a/pdf/web/ARN19780_FM%201-02x1%20-%20FINAL%20WEB.pdf. Thus, "hybrid warfare" is taken to refer to conflict conducted by a military or militia that uses regular military operations and weapons together with military or non-military capabilities used in ways in which a professional military generally would not do. This concept might come closest to reflecting the direct experience of policy makers and analysts working in this area, it also seems inadequate to account for the intentionally ambiguous nature of these near-peer and regional state activities.

The conclusion was that the U.S. must begin to think about the national security environment in a broader way to account for actions which did not rise to the level of military confrontation but over time presented themselves as fait accompli against which in most cases an armed response would appear disproportionate and escalatory. What eventually came to be called "competition below the level of armed conflict" (Jackson, 2017), initially was known as the gray zone between peace and war.

Important questions have emerged as the U.S. security establishment has worked to refine the gray zone concept, and explore the implications of this new means of conflict. Two of the most central issues concern (1) the nature of gray zone conflict and its differences from other forms of conflict, and (2) the motives for actors to adopt gray (as opposed to other) tools.?

Before turning to these questions, it is instructive to review the origins of the idea of a gray zone between peace and war.

1. The Gray Zone Begins with China and Russia

The idea of a seemingly new form of gray zone threats has caused much anxiety within the U.S. security community. The notion of a gray zone of activity, in which a state's actions are neither clearly cooperative nor warlike, also reflects a particularly American tendency to frame foreign affairs as neatly divisible: either war or peace; with us or against us; friend or enemy. Paradoxically, the emergence of this Western concern begins with Chinese and Russian concerns about U.S. military superiority displayed during the 1991 Persian Gulf War, and later during the Color Revolutions in the 2000s and the Arab Spring in 2010s. These events made it clear to Chinese and Russian strategists (as well as other adversaries of the West) where the source of modern military power lays: in advanced military technology—rapid communications, sensors and precision weapons—as well as the capacity to mobilize and lead a coalition of partners aligned to its interests. The logic of a strategy that includes gray zone activities is deceptively simple: in order to win, avoid pushing your foreign policy objectives into a domain where your opponent is strong and you are weak. For China and Russia this meant avoiding direct, conventional conflict with the U.S. This thinking can be found in ancient Chinese and Soviet military thought, and in more recent essays written by military officers .

Figure 2.1. Events and Concepts leading to Gray Zone.
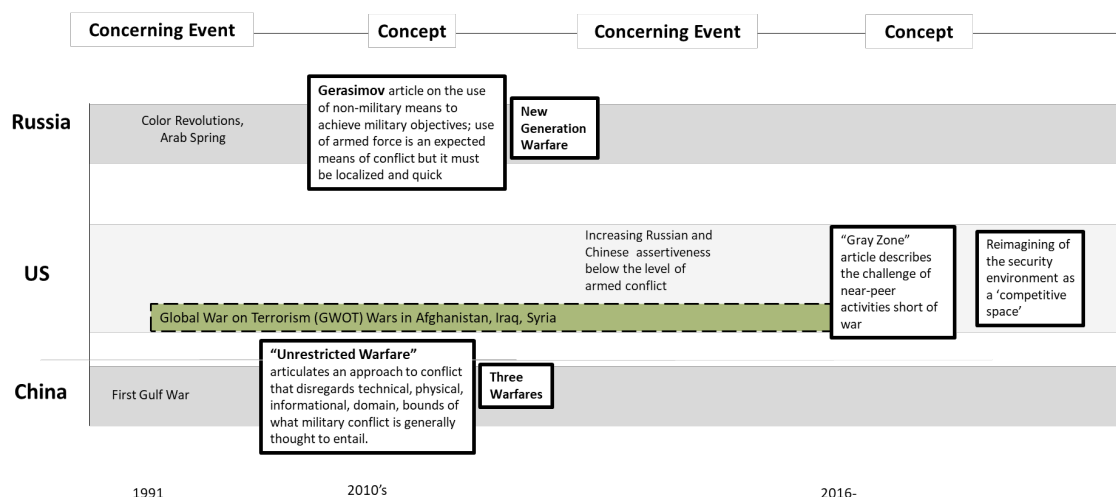
1.1. China

China scholar Dean Cheng refers to the Gulf War was a "wake-up call" for Chinese leaders (Cheng, 2019), as evidenced by a now famous article published by two PLA colonels, "*Unrestricted Warfare: Two Air Force Senior Colonels on Scenarios for War and the Operational Art in an Era of Globalization*". In that article the Colonels refer to the 1991 war in Iraq as the "one war [that] changed the world" (Qiao and Wang, 1999). Whether or not this is hyperbole, the use of the intelligence sensors, stealth technology, precision-guided weapons, and psychological preparation of the battlefield demonstrated by the U.S. and its partners was seen among Chinese leaders as a new form of warfare and shocked them into reevaluating the U.S. as an opponent (Cheng, 2019). It also triggered multiple strategic reviews in China, followed by over 20 years of a military build-up intended to modernize and expand Chinese capabilities "in nearly every respect" (U.S. Department of Defense, 2020a, also see 2020b).

We also find the logic of China's use of gray zone challenges in the ancient wisdom of Sun Tzu (*The Art of War*), Sun Bin (*Military Methods*) and other military leaders of the 3rd and 5th centuries B.C.E. Together with the Taoist concept of *wu-wei* (non-action), this foundation supports a modern military philosophy that favors managing and winning conflict without having to use military force—what Vlahos (2021) has called the "ceremonial use of the military"— demonstrating strength to win the fight without having to fight. Chinese leaders are aware that direct military-to-military conflict with the U.S., even if China were the dominant military (e.g., as in the South China Sea), would exact a devastating cost by disrupting the trade it needs to maintain its economic growth and development from which it derives much international influence. A less risky strategy is to pursue China's national objectives while avoiding armed conflict as much as possible. *Unrestricted Warfare* describes how this might be accomplished by applying "wisdom," especially against opponents armed with sophisticated weapons. The central principle of this wisdom is to challenge opponents in the domains and locations where they are at a comparative disadvantage and avoid confrontation in areas in which the opponent is stronger. Thus, China's best chance to defeat U.S. military dominance is to avoid military conflict and instead employ its full range of national assets: political, diplomatic and economic leverage, cultural attractiveness and psychological manipulation, in areas in which the U.S. is weaker. Former U.S. Security Advisor and General H. R. McMaster (n.d.) captured this idea perfectly when he quipped: "There are two ways to fight the United States military: asymmetrically and stupid. Asymmetrically means you're going to try to avoid our strengths." For China, that means waging war against the U.S. in ways not "dominated by military actions" as much as possible (Qiao and Wang, 1999).

As it has evolved since the 1990s, China's strategic approach includes this preference for substituting direct use of armed force, with indirect non-military, or seemingly non-military means (Burns et al, 2019). This does not mean that China avoids coercion. On the contrary, China's gray zone, and wider defense strategies employ the concept of "strategic integrated deterrence"—combined use of China's security, political, economic, psychological, and information technology capabilities to deter hostilities (Flynn, 2019). In particular, President Xi and Chinese Communist Party (CCP) leaders have made it clear that they believe the world has entered an age in which information is the ultimate power, and the side that controls information, not the side that exceeds the other in traditional military force, will be victorious. A large part of China's gray zone activities involves information control, either as

a tactic, an outcome or both.[11] As a result, over the previous decades the CCP has dedicated significant effort and resources to "informationize" its strategy and national defenses.[12] This thinking is also reflected in China's "Three Warfares", a multi-pronged strategy for "weaponizing" information to shape the environment based on three lines of effort: psychological warfare, public opinion or media warfare, and legal warfare.[13]

China has also invested heavily in military technologies to shape a prospective battlefield well before the outbreak of armed conflict (Morgus et al., 2019; Costello & McReynolds, 2018; Fravel, 2015). During military conflict, if it should occur, information dominance allows China to manipulate how an enemy force perceives the conflict environment, which allows China to influence decision making in support of China's objectives rather than its own. In non-crisis contexts information dominance allows China to shape public narratives in ways that undermine the morale of an adversary's military forces, its domestic support, and the international influence that a prospective adversary would need in order to succeed in a conflict with China (Costello & McReynolds, 2018; Gershaneck, 2020).

This discussion highlights the principles in three categories—transparency, critical conflict domain and persistence, and sources of power—that characterize Chinese activities in the gray zone and reflect its preference for "winning without fighting:"

Principle: Ambiguity and deception are necessary to 'fight without fighting'. Disguise and deception about the intent of China's actions, or even what, if anything, is happening, are common characteristics of China's gray zone activities. They can be used to avoid militarized conflict. An article published by the Chinese Academy of Military Sciences notes that "the traditional guiding principle of "preserving oneself and destroying the enemy" in warfare has been reinvented as "discovering the enemy and disguising oneself."[14] Chinese actions clearly include attempts to cloud their purposes, and whether the Chinese government or civilians are responsible for the actions.

Principle: Information control leads to behavior control. Controlling the availability and content of information is a fundamental means of shaping the bounds of a conflict in China's

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[11] This has included large-scale Chinese investment in, and construction of, communications infrastructure largely in the developing world; building its own broadcast services and internet providers, and of course endowing the world with Tik Tok. It uses these and other means to conduct persistent multi-media campaigns to shape global sentiment in its favor, for example by pushing a narrative that the U.S.' self-centered belligerence destabilizes foreign affairs, while China's growth and prosperity will benefit all states.

[12] Cheng (2019) describes China's notion of informationization, as "a comprehensive system of systems, where the broad use of information technology is the guide, where information resources are the core, where information networks are the foundation, where information industry is the support, where information talent is a key factor, where laws, policies, and standards are the safeguard."

[13] Psychological Warfare refers to the practice of using multiple sources of national power to coerce or convince potential adversaries during the period before conflict to accept China's preferred outcome without the need for China to apply military force. This can include manipulation of battlefield command and control, as well as psychological operations intended to "undermine the morale of enemy forces and targeted populations"— precisely what the Chinese observed the U.S. coalition do during the Gulf War. Media Warfare refers to activities intended to sway domestic and international public opinion by influencing what information is available to them for example, over news services, web sites, entertainment, social media and other information sources. The Chinese have made significant inroads in this area with large-scale investment in global communications infrastructure and networks, particularly in the Pacific and developing world (Livermore, 2018). Finally, Legal Warfare (also known as lawfare) refers to attempts to use international rules and norms selectively to constrain an opponent's actions.

[14] Information warfare spawns a camouflage revolution. http://www.sina.com.cn. August 10, 2012 05:39.

favor well before a conflict emerges. Weaponized information is used to target adversary perceptions, degrade military morale and popular support for the enemy government, and thus, its behavior during conflict and pre-conflict periods. In China's view of the modern security environment, information is both a weapon to use on the battlefield, and the battlefield itself. Moreover, the battlefield must be managed persistently, and done so well before the outbreak of international crisis or conflict.

Principle: Prevailing in modern warfare requires unrestricted use of all sources of national power. Modern conflict, especially involving a more powerful or peer adversary, necessitates unrestricted use of all sources of national power—military and civilian, psychological, informational, legal, economic—to pursue China's foreign policy goals.

1.2. Russia

Russia is quite literally a different country than when the 1990s began. Through the 2000s it faced a difficult transition period and struggled with domestic independence movements, suffered horrific domestic terrorism, fought two wars in Chechnya, and engaged in ongoing battles against insurgencies in the north Caucuses republics. Nevertheless, during the years when the U.S. was consumed by wars in the Middle East, Russia was also updating and expanding its military capabilities.

While Soviet ideas about international affairs, conflict and warfare continue to influence Russian strategic culture (Thomas, 2019; Wiltenburg, 2020), like their Chinese counterparts, Russian strategists have responded to U.S. military supremacy by rethinking their concepts of modern warfare. In 2013, Russia's Chief of the General Staff, [15] General Valery Gerasimov, published *"The Value of Science Is in the Foresight: New Challenges Demand Rethinking the Forms and Methods of Carrying out Combat Operations"* – a document widely known as the Gerasimov Doctrine.[16]

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[15] Bartles (2016) explains that, while often compared to the U.S. Chairman of the Joint Chiefs of Staff, the Chief of the General Staff in Russia has significantly more authority than "any flag grade officer in the U.S. military" with responsibilities that span those of the U.S. Office of the Secretary of Defense, military Combatant Commanders, and oversight of military transportation, development of military doctrine and acquisition for the entire military.

[16] In his descriptively titled, "*I'm sorry for creating the Gerasimov doctrine*,", Mark Galeotti (2018), who first referred to the article (and speech) as the Gerasimov Doctrine, argues that using the term "doctrine" in reference to Gerasimov's article is a mistake. In a later article Galeotti clarifies that Gerasimov's article does represent a doctrine, or even a solid foundation. We take it as a good example of how senior Russian officers had come to view the important features of modern warfare, and what Russia should do about it. Furthermore, it is important to acknowledge that in his article Gerasim described what he believed to be the Western (not Russian) way of war - and proposed Russia's responses to it.

Figure 2.2. Graphic from Gerasimov article translated by, and shown in, Bartles (2016).
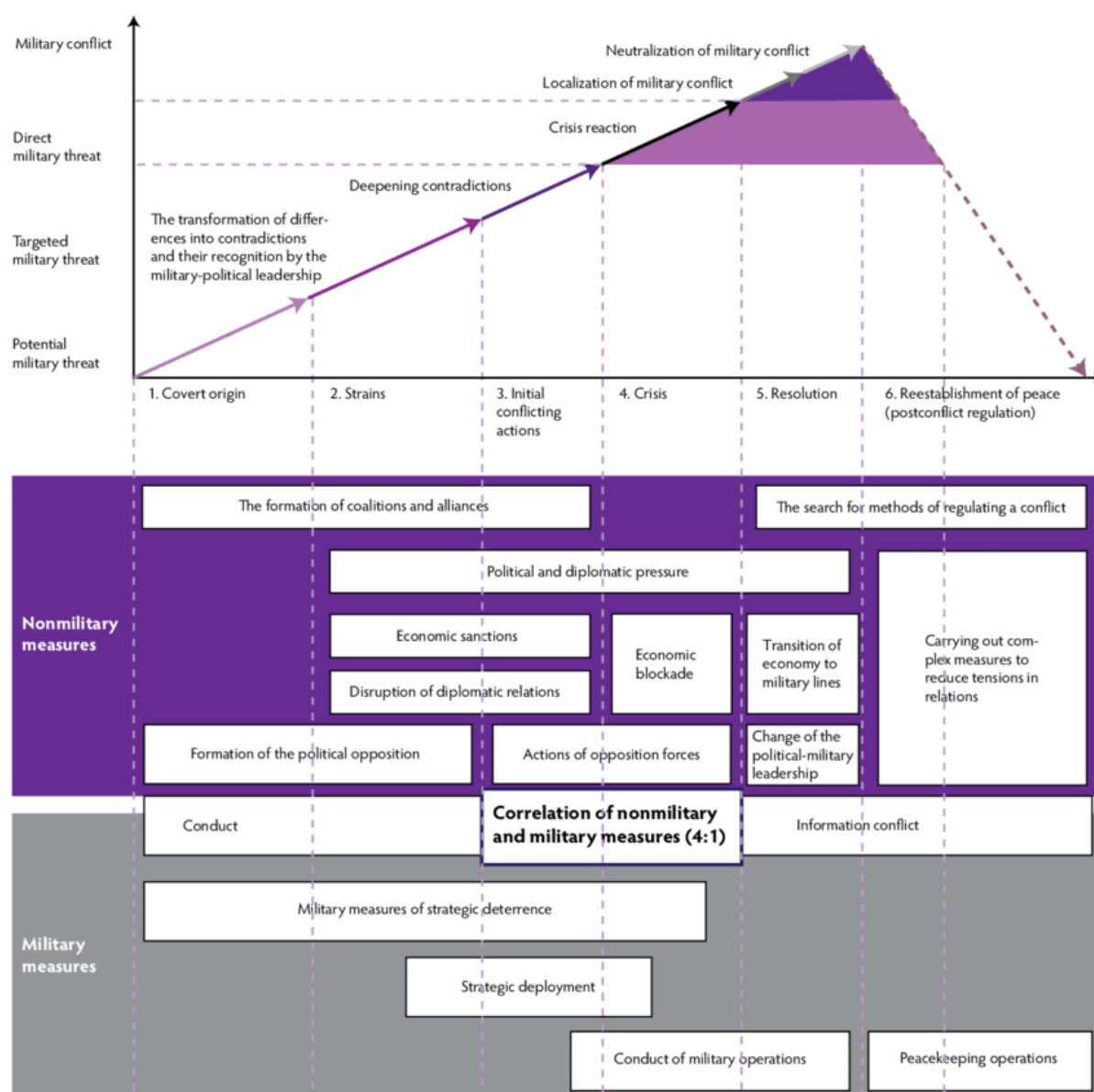
In the article, Gerasimov updates legacy Soviet strategic thinking to better align with the 21st century security environment, the evolution of military technologies, and the political and security challenges that these produced. Some of the most concerning changes were due to advances in communications technologies and platforms that gave external actors the ability to target the sentiment of domestic populations. Gerasimov reflects on the rapid, destructive power of propaganda and subversion that provoked the Color Revolutions in Eastern Europe and aggravated the Arab Spring demonstrations in the Middle East—a series of events that he attributes to Western powers' efforts to force failure of regimes that do conform with U.S. global leadership. Though he does not use the term, Gerasimov describes what are essentially U.S. and Western gray zone activities including supporting separatists and democracy movements to overthrow legitimate governments. The use of proxies, he says, is contrary to the international legal principle of state sovereignty, and makes domestic populations both the target and battlefield of modern warfare (Gerasimov, 2013). Russia's 2014 Military Doctrine codified this idea and highlighted "political, diplomatic, legal, economic, informational, and other non-violent instruments" as the national assets that must be

employed in Russia's defense from both external and internal threats (Russian Federation, 2014).

One of the innovations of Gerasimov's piece is the explicit integration of non-military, non-violent actions with military operations into a concept of combined arms to achieve Russian political and strategic objectives. The ratio of four non-military for each military operation that Gerasimov recommends, underscores the idea that non-military means are not less important actions supporting the use of force, but are essential facets of modern warfare (Mckew, 2017). Of course, employing all sources of national power—military and non-military—to achieve security objectives is not a new feature of Russia's approach to foreign affairs. The novel   difference was the recognition among the Russian *defense* establishment of the critical role of these sources in defending the country's security. What Gerasimov and other Russian strategists suggest is not so much a new way of war, as a reflection on the 21st century operational environment (Bartles, 2016). Adding non-military means to traditional conventional and nuclear forces also broadens the range of tactical, deterrence, and escalation options available to Russian leaders in service of the country's national security interests (Congressional Research Service (CRS), 2020).

The Gerasimov article does not stand alone among Russian strategic reviews over the past thirty years. However, it is a good reflection of debate within the Russian security community about the nature of "modern warfare" and the critical requirements of *new generation warfare* (CRS, 2020)—a strategic concept somewhat analogous to China's Three Warfares strategy. Gerasimov's framework represents this new warfare concept in which all sources of power, including non-military assets, may be mobilized against Russian military objectives. Physical conflict should occur only after psychological preparation of the battlefield has weakened the capabilities and will of the adversary. New generation warfare does not envision war and peace as separate and distinct conditions, but assumes that conflict and war are present "at all times, in all places, and with all resources" (Fedyk, 2017).

Unlike the Chinese view though, Russian strategic thinking does not necessarily include a preference for avoiding the use of military force. Instead, it broadens defense options by incorporating non-military tools into military operations and other sources of defense (CRS, 2020). Psychological and informational operations are elevated to primary importance so that "influence is prioritized over destruction; inner decay over annihilation" (Fedyk, 2017). Russian leaders view the use of information technology as a key tool of statecraft to be employed continuously in both domestic and international contexts (NSI ViTTa, 2016). Efforts to sway the way others perceive the world—as anyone in marketing will confirm—require a campaign that includes consistent reinforcement over time. The operational implication is that preparation of the cognitive battlefield must begin well in advance of the use of other tactics.

This idea was on display in the Russian effort in Crimea (CRS, 2020). Well before military operations began Russia had provided aid to separatist forces, had made significant investments in Ukraine's energy sector, and Russian backed communications networks reinforced the narratives emphasizing the close cultural heritage between Russians and Ukrainians, as well as the illegitimacy of the Ukrainian government. Following preparation of the cognitive environment, Russia secured an "official" invitation from local leaders in Crimea and Donbas to intervene on their behalf, then used deception and misinformation to "hide" Russian forces in plain sight as non-combatants on holiday or engaging in a humanitarian intervention. Whether these activities fooled anyone or not, they did slow any

response to the invasion by increasing ambiguity about exactly what was going on in Crimea: who was there? What were they trying to accomplish? And has there ever been an invasion of a sovereign state? Identifying the appropriate response to a campaign of information manipulation, economic and political intimidation, and support for insurgents, in which no shots were fired, is complicated by the fact that during most of the event a *militarized* response would have appeared disproportionate to the original activity and an escalation of the conflict. In this way, deception neutralized the U.S. and NATO comparative advantage by confounding decision making about how to respond, which, in turn, bought Russia enough time to achieve its objective through a fait accompli.

Three principles of new generation warfare thinking illuminate Russian activities in the gray zone:

Principle: Deception and ambiguity buy time to achieve security objectives at lower risk. As discussed above, attempting to mask intentions, retaining plausible deniability of gray zone activities, and denying participation when plausibility is lacking, is really a reaffirmation of the long-time Soviet/Russian approach to conflict as illustrated in the Crimea example.

Principle: Perceptions are the primary battlespace. Constant psychological operations and using information as a "weapon" to degrade an enemy military's morale, and popular support unfavorable to Russian interests is a key feature of Russia's gray zone approach. Russian cyber and social media campaigns to manipulate U.S. popular perceptions of the legitimacy of the electoral process, or efforts to undermine the cohesion of the NATO alliance illustrate this point.

Principle: Modern warfare requires fusion of military and non-military measures. From pre-crisis to crisis resolution, all sources of national power should be leveraged toward achieving security goals. Like China, Russian leaders view information as central to national security and are comfortable using a range of national capabilities in the name of security and defense from conventional military ones to "…clandestine special forces and intelligence operatives, to economic threats, political influence, online and offline information battles, as well as "traditional" subversion" (Jonsson and Seely, 2015). When military force is used, it should be measured and employed only once non-military measures have diminished the will or capabilities of the enemy.

1.3. Gray Zone as a U.S. Defense Concept

Some believe that the Cold War paradigm was destroyed along with the Berlin Wall and the Soviet Union. Nevertheless, some three decades later, an East vs. West Cold War paradigm continues to dominate U.S. defense thinking and policy. What is now known among U.S. defense policy makers as *competition below the level of armed conflict* was initially identified as activities in the gray zone between peace and war. As U.S. leaders began to perceive Russian and Chinese behavior as more assertive, they became increasingly frustrated with the limitations on U.S. behavior self-imposed by security concepts that had been developed either during the Cold War, or to defeat small, and minimally-armed non-state actors (see Clark, 2016). *"Unconventional Warfare in the Gray Zone"* published by U.S. General Joseph Votel and colleagues in 2016 was one of the first senior-level admissions that the U.S. was unprepared for a fusion of military and non-military tactics that were, "more fervent in nature than normal steady-state diplomacy, yet short of conventional war." Ultimately, senior

leaders were concerned with primarily Chinese and Russian activities that seemed to challenge U.S. interests but, even when clearly attributed, did not rise to the level of warfare.

It can be somewhat confusing to unravel the spate of security terms and concepts that were in use in the mid-2010s. This is because concern with gray zone challenges coincided with a broader reevaluation of U.S. security strategy. The Trump Administration's 2017 U.S. National Security Strategy (NSS)—the first since the 9/11 attacks in 2001 not to include terrorism as a major security threat—called for a new paradigm that would move the U.S. beyond the too-restrictive, war or peace, friend or foe view of international affairs to one more appropriate to the global environment of the late 2010s. The 2018 National Defense Strategy (NDS) that followed, identified "strategic competition" as the most pressing national security challenge facing the U.S. Together with other official publications, the NDS highlights the "competitive zone" as an arena in which the U.S should expect its interests to be continually challenged by China, Russia, North Korea, and Iran, and began the process of replacing the 'war or peace' frame with the idea that foreign affairs occur on a continuum from cooperation, through competition, to armed conflict and warfare. What had been called gray zone activities, were the tactics that U.S. adversaries were using to challenge U.S. interests. In other words, gray zone activities and challenges are the means U.S. adversaries use to compete with the U.S. and therefore should be contained.

One of the first attempts to refine the, fittingly ambiguous, competition concept introduced but not defined in the NSS and the NDS was produced in Headquarters Air Force (HAF), the offices of the Chief of the Air Force. Among many contributions *The Joint Concept for Integrated Campaigning* (JCIC) offered helpful definitions: *armed conflict* is defined as "the use of violence is the primary means by which an actor seeks to satisfy its interests. Armed conflict varies in intensity and ranges from limited warfare to major wars between great powers." *Competition below armed conflict* is a setting in which actors "have incompatible interests but neither seeks to escalate to armed conflict." Finally, *cooperation* refers to "mutually beneficial relationships between strategic actors with similar or compatible interests." These are the relationships that "underpin the international order, enhance collective security, help to ensure access, enable burden-sharing, and deter conflict."

2. Defining Gray

Unfortunately, to date, and despite the JCIC and other efforts, there is not a standard term for these "new threats" across the U.S. government. For example, the State Department still uses the term gray zone, while the cumbersome "conflict below the level of armed conflict" is the term of choice at the Department of Defense. Not surprisingly, there is also no standard definition of what constitutes a gray zone activity, challenge or conflict.[17] This is not just an executive branch problem, there also is no consensus in academic literature (Jackson, 2017; Freier et al, 2017).

Identifying gray zone activities is challenging: there is simply no activity or set of activities that can be identified as a gray zone challenge *a priori,* and independent of the context within which it occurs. Contrast this with troop movements, mobilizations, changing alert status, and the use of force by one actor against another that are generally clear indicators that a (non-

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[17] The consensus definition of gray zone has evolved over time. For example, the initial definition suggested in the 2016 Votel et al article, (and refined by Votel's own staff at the U.S. Special Operations Command) included the use of armed force within the gray zone, and applying gray zone activities to non-state actors.

gray zone) crisis or serious conflict is underway. Whether an action is seen as gray however, typically is determined by what the target and others believe is the challenger's intent behind an action.

For the purposes of this study, we rely on common characteristics of gray zone activities in order to derive our operational definition.[18] It should come as no surprise, these closely mirror Chinese and Russian thinking about modern warfare.

Gray zone *activities* and *challenges* are those that occur in the competitive zone beyond the level of acceptable competition but short of armed conflict and in which:

Principle: An actor's identity, intent, the nature of the activity, its legality, and appropriate response are, by design, ambiguous. Ambiguity is the defining characteristic of gray zone activities, which can be intentionally ambiguous about a challenger's objective, identity, purpose and/or the intended target of its action. China's reclamation of reefs in the South China Sea, as in the Mischief Reef crisis cited above, was, at the outset, a good example of deliberate ambiguity. China had been working on the reef since the mid-1990s, and raised its flag over Mischief Reef in 1995. However, it was not until ten years later when the reef had become an island with an air field and advanced weapons, that China's full intent was clear: not just to establish physical presence in the area, but to create a base from which it could control strategic sea lanes, and launch intimidations carried out by the blue hulls. The use of civilian boats to conduct patrols and essentially freedom of navigation (and fishing) missions that navy forces otherwise would do, is intended to make it unclear what constitutes a reasonable response by foreign naval forces because, by definition, nearly any militarized response can appear disproportionate to the original activity, and be considered escalatory.

Principle: Direct, overt use of force is limited. The still-evolving U.S. view of the current international environment is that it is one in which the U.S. should expect persistent competition. It is a continuous game that doesn't end. In this context, gray zone activities serve an actor's national security interests in ways designed to minimize the risk of taking potentially costly direct action against a capable rival. Instead, they are intended to avoid escalation in order to remain below the threshold of armed conflict, or at which an armed response or major clash would be triggered (Morris et al, 2019.) While gray zone activities may employ military or violent means, in most cases, they cease to be gray once direct armed force has been used.

Principle: Multiple sources of power are used in unexpected ways. Two of the most confounding features of gray zone challenges are the use of military capabilities in non-conventional[19] ways, and the use of non-military capabilities to achieve security objectives. Gray zone activities may use a wide range of instruments of national power (e.g., diplomatic, international prestige and influence, military presence, economic, etc.), across multiple domains of activity (e.g., cyberspace, outer space, leader perceptions, social media, population opinion, etc.). They can involve combinations of activities like diplomatic pressure together with criminal activities; economic coercion and social media manipulation

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[18] Gannon, Gartzke, and Lindsay (2017) suggest that this is in part a consequence of the fact that "the military believes that gray zone conflict needs to be described, not defined," and that identifying characteristics of gray zone conflict is a sufficient approach.

[19] The term non-conventional is used here to avoid confusion with the concepts of unconventional threats or unconventional war, which are used in reference to providing assistance to proxy actors, primarily resistance movements and insurgencies.

to "sow doubt, dissent, and disinformation in foreign countries" (Schaus and Conley, 2018). The range of actors that conduct gray zone activities is broader than those typically associated with national security to include private sector enterprises, cyber hackers, violent non-state actors, and local or transnational criminal networks. Russia's efforts to manipulate and control information in Crimea prior to the arrival of the Russian "tourists, mis- and disinformation campaigns to interfere with U.S. general elections, and the Brexit vote in the UK are examples.

Prevailing international rules, laws, and norms are often challenged or violated. From the U.S. perspective, gray zone activities often challenge the international laws and norms that serve as the foundation of the liberal *rules-based international order* that the U.S. endeavors to defend. Rule challenges are often conducted incrementally and done in ways that obscure whether or not a law or a norm has been violated. As a result, they can cause policy makers considerable difficulty in determining whether perceived violations warrant a response, and if so, what would constitute appropriate, non-escalatory action (Dowse and Bachman, 2019). This is one of the reasons that gray zone activities have proven so vexing to U.S. leaders.

It should be noted that though China and Russia are seen in the U.S. as posing persistent challenges to international norms, from the Chinese and Russian perspectives it is the U.S. that is the primary aggressor. The U.S.'s defense of its idea of the *rules based international order* is uneven at best and often directly threatening to their key national interests. For example, what may seem in the U.S. as benign efforts to support the rights of the individual (e.g., via international internet freedom, economic transparency, intellectual property protections) directly threaten the very means by which the CCP secures political control in China, and thus is a direct assault on China future development. Also, in fairness, challenging international law and norms when convenient is not just a Chinese or Russian tactic. From the 1990s to the present, the defenders of the rules-based order— the U.S., its allies, NATO, and UN forces—have fought in more intra-state than inter-state conflicts by a significant margin, violating the international legal principle of state sovereignty in major ways.

Figure 2.3. Summary of the Characteristics of China, Russia and U.S. Gray Zone Concepts

	China	Russia	Gray Zone
TRANSPARENCY	Ambiguity and deception are necessary to fight without fighting	Deception and ambiguity buy time to achieve objectives at lower risk.	**Identity, intent, the nature of the activity, its legality, and appropriate response are, by design, ambiguous to reduce risk or cost (e.g., in resources, international opprobrium, retaliation) of direct action**
CRITICAL CONFLICT DOMAIN	Information control leads to behavior control.	Perceptions are the primary battlespace	**Often challenge prevailing international rules, laws and norms. They often challenge the laws or norms of the "rules-based" international system**
PERSISTENCE	Preparation of the battlefield must be constant	Conflict and war are perpetual states in the international system, so management of the battlefield requires persistent engagement	**Occur in the continuously competitive gray zone between peace and war. That fall below the level of direct use of military force that are perceived by targeted actors as threatening to their interests**
SOURCES OF POWER	To prevail in modern warfare requires unrestricted use of all sources of national power.	Modern warfare requires fusion of military and non-military measures.	**Use multiple sources of power in unexpected ways to achieve security objectives while avoiding direct, military-to-military conflict though may do so by proxy.**

2.1 Working Definitions

For the remainder of this report, we distinguish *the* gray zone from gray zone behaviors. The *gray zone* refers to the competitive space between international cooperation and armed conflict, in which actors employ gray zone activities. We establish the upper bound of the gray zone at the point at which these activities have escalated to state-level military-against-military conflict. Because the research reported here is focused on escalation from the gray zone to conflict, the lower boundary is of less concern.

Gray zone activities, *challenges,* and *conflict* are used to convey the relative seriousness of behaviors: the term "activities" is generally used to refer to sets of gray-like behaviors; "challenges" connote clearly oppositional activities; and "conflicts" refer to aggressive actions. Each term refers to competition below the level of armed conflict. They may employ multiple sources of civilian and military power in non-conventional ways to achieve political-security objectives. Often this is done in ways intended to cloud attribution or intent in order to minimize the risk of escalation to direct, military-military armed forces. A gray zone crisis may involve a single incident or series of gray zone activities. The same action, for example, an unclaimed terror attack against civilians, might be taken either by a weak actor, or by a state with wide-ranging military and other capabilities. However, we count it as a gray activity only if the perpetrator had other options available but chose to conduct the terror attack.

2.2 Why stick with "Gray Zone"?

Despite some lingering debate primarily within the U.S. defense community regarding how gray zone should be defined, and how it differs from existing concepts, we have chosen to stay with the gray zone nomenclature for two reasons. First, the term reflects the ambiguity that is the defining feature of these types of activities and strategies, and as a result is more intuitive than the unwieldy "competition below the level of armed conflict" or terms such as unconventional warfare, irregular warfare, asymmetric warfare, and hybrid warfare. Second, we argue that, as we have defined it, gray zone is a more precise description of the construct we seek to explore. While other concepts of conflict do tap into some facets of the construct we measure and test in subsequent chapters, none covers them fully.

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Chapter 3: Conceptual Framework of Managing International Crises 1990-2020

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Introduction

The central theme of this chapter is the links and gaps between the academic study of various aspects of conflict, and the practical manner in which the major global powers – the United States, Russia, and China – have come to manage conflict.

It unfolds in two parts, the first of which offers a summary of key themes in Western academic theory and research concerning conflict and escalation since 1990. The theories discussed range from deterrence posturing against different types of threats to emerging tools for, and trends in, the conduct of conflict management (leaving aside negotiations and post-conflict environments as a necessary limitation). The reader will find that some of the strategic concepts discussed here emerged in the nuclear age predating the Cold War; some concepts emerged during the major international crises within the period under discussion (such as the 9/11 crisis); and some continue to evolve into the future - such as the gray zone warfare. The theory section seeks to highlight the key developments leading up to the central theme of managing crisis escalation within the gray zone.

The second part of the chapter reviews key trends in historical cases of crisis management and crisis behavior adopted by the U.S., Russia, and China since the 1990s. We discuss relevant U.S., Chinese, and Russian national security doctrines that reflect the differences and similarities between their concepts of power, conflict, and the space between war and peace.

1. Review of Western Academic Thought on Conflict

This section covers seven key avenues of academic inquiry that reflect how the understanding and analysis of conflict have changed over the past three decades. It references the geopolitical developments that have shaped this thinking, and reflects on the related evolution of relevant policy aspects.

1.1. Liberal Democratic Peace

In 1990, the end of the Cold War and the dissolution of the Soviet Union seemed to crown liberal democracy as "the winning type" of state organization. As such it was a model toward which all modern states would strive. Former nuclear adversaries were seeking reconciliation and countries emerging from behind the iron curtain were receiving assistance to integrate into the global economy. There seemed to be no more reason for conflict among modern developed states – Fukuyama (1992) called it The End of History in his moment-defining book. Indeed, to many the decade following the USSR's collapse seemed to be marked by an informal aphorism *make trade not war*: the rapid development of free market economies and individual entrepreneurship were seen as universally laudable measures to make the world interconnected, thus making war a poor business decision. Academic studies by Mansfield (1994), Oneal and Russett (1997), and Keohane and Nye 1977; 2000) were looking to

demonstrate a causal relationship between economic interdependence of countries, and peace and stability.

In addition to war being deemed economically imprudent, models were being built to show its redundancy on ideological grounds. In this context, *democratic peace theory* was born: the argument was made that nation-states externalize the norms of domestic political processes in their interstate interactions. Since political behavior in democracies was distinguished by an emphasis on peaceful political competition through negotiation and compromise, with victors never permanently dissolved, externalizing these norms to international behavior would also have to mean a preference for peaceful dispute settlement. Extensive analysis of historical data was used to academically demonstrate that democracies were less prone to engage in war against other democracies (see, e.g., Bueno de Mesquita and Lalman, 1992; Lake, 1992; Maoz and Russett, 1992; Mintz and Geva, 1993; Brecher and Wilkenfeld, 1997; Braithwaite and Lemke, 2011). The democratic peace theory offered a state level explanation for the international environment. Notably, around these concepts of democratic supremacy and economic interconnectedness, international institutions have started to emerge, such as the European Union (EU) in 1993, and the World Trade Organization (WTO) in 1996.

However, soon enough the turbulent statehood crises of the 1990s, and the Gulf War launched by the leading global democratic power suggested that reality diverged significantly from the theorized path towards universal lasting peace. These events ran counter to the argument about democracies being generally less war prone, and economic interests constraining democratic governments from the use of violence. In another moment-defining book, Huntington (1996) aptly predicted that despite economic prosperity and political development, cultural identities and religious beliefs would continue to fuel conflict, in the form of a "clash of civilizations." While the 1990s saw several traditional state-versus-state wars and smaller scale independence struggles, described above, researchers refined their understanding of international economic sanctions as an alternative to war fighting - examining their effectiveness in achieving policy targets and their morality in targeting populations (Hathaway and Shapiro, 2017). Interestingly, Blackwill and Harris (2016) argue that Russia has come to use different economic levers (mainly gas trade) towards similar ends, while China has adopted a different narrative regarding sanctions altogether – seeing it as an imposition of Western colonial superiority. Notably, as China's own economic leverage expands, so does China's ability to stymie the impact of international or Western economic sanctions levied against China or its allies. Thus, as the academic modelling of relations between a state's regime type and its propensity to use force continued to evolve, the very concept of what constitutes peaceful dispute resolution – versus conflict – evolved as well.

1.2. Polarity and Power

One of the enduring academic questions in international politics concerns the link between the structure of the international system and its stability. Whereas the democratic peace theory focused on state level explanations, inquiries into power polarity were looking at system level factors. The ICB database, which this report draws upon considerably, has summarized the polarity assessments over the past 100 years as follows: multipolarity (1918-1939); bipolarity (1945-1962); polycentrism I (1963-1989); and unipolarity (1990-2010, and polycentrism II (2011 to the present day) (for a more detailed discussion, see Chapter 4). Looking at these historical periods marked by varying levels and types of conflict, the question was whether the most stable and least conflict prone system would be one with a single, dual, or multiple centers of power. On the one hand, no rational actor ought to start a

war against an overwhelmingly dominant power; on the other hand, if power is dispersed, no single actor could acquire enough of it to overwhelm the others.

Initially, the early 1990s seemed to offer hopes of a new era of peace and stability. Krauthammer (1990) declared the United States to have reached a unipolar moment in international politics. Similarly, Volgy and Imwalle (1995) and Kohaut (2003) posited that a hegemonic system, dominated by the U.S. in this case, was going to be more peaceful than the previous bipolar Cold War setting.

However, the very existence of the hegemon seemed to invite challengers – reviving an interest in the concept of power transition theory (PTT) as a complementary explanation closing the gap between theory and observable reality. PTT was originally developed by Organski in 1958, and posited that the international system was historically hierarchical, with a dominant power setting the tone for, and enforcing, international order. This suggested that U.S. unipolarity, far from being an anomaly (as believed in the early 1990s), was conforming to a historical pattern. The PTT further argued that just as natural to this order was the regular emergence of new powers, propelled by the development of a particular aspect of their power, which would allow them to challenge their peers, declining powers, and eventually the hegemonic power (Tammen and Kugler, 2006; Lemke, 2004). Recently, Brecher (2016) has argued that unipolarity has evolved into a system which he has termed unipolycentrism, that is, one that combines *power unipolarity* (of the United States) and *decisional multipolarity* (of the United States, Russia, China, France, Germany, Japan, and the United Kingdom).

Significantly, related to the notion of polarity, further questions were mounting regarding a key challenge of *measuring* power. For example, Russia was in shambles economically and politically; yet the West continued to include it as one of the great powers – a U.S. near-equal that the USSR used to be, in terms of its weight in international politics. Russia had maintained a large nuclear arsenal and continued to wage direct and indirect wars in its neighborhood, but its military might had diminished with the break-up of the Soviet Union. Meanwhile, China, which was rapidly growing both its economy and its military might (surpassing Russia in most aspects), was not assigned comparable international weight by the West. One potential explanation for this disparity could be the significant difference in the size of Russian vs. Chinese nuclear arsenal – and not only the deterrent, but also the symbolic value it afforded.

Moreover, China and Russia were not the only aspirants for global power status: by around 2005, the concept of BRICS (Brazil, Russia, India, China, South Africa) appeared. This Wall Street-originated acronym included the fastest growing economies and regional powers with serious ambitions to be recognized at the global – rather than just regional – power table. Attempts by Russia and China to each promote – and actively implement – an alternative world order through *Russkiy Mir* (see, e.g., Radin and Reach, 2017) or *Belt and Road Initiative* (see, e.g., Hillman, 2020), respectively have come to be relatively well documented today. Nevertheless, it is important to recognize the rest of the BRICS have also been harboring increasingly explicit global ambitions – for their individual recognition, as well as an international order more inclusive of the global south (see, e.g., Tellis, 2005; Alexandroff, 2015; Trinkunas, 2015). Thus, while the U.S. remained an overall global power, combining military might, economic strength, and cultural appeal, a serious challenge was being put to these individual aspects of power the U.S. exercises – ranging from the cultural influence of Bollywood, to China's economic presence in European seaports, among other examples.

However, these developments did not explain the multiplication of gray zone crises – where challenges to the dominant power were posed by state and non-state actors nowhere near its equals.

1.3. Deterrence and the Expanding Notion of Conflict

While the subject of deterrence is extremely well theorized, the aspect most significant to the evolution and management of crises discussed in this report relates to the academic (as well as operational) treatment of conflict boundaries. Namely, over the past thirty years low-level crises – ranging from probing and shaping behavior to cyber offensives (among others) – have come to be seen as actual forms of conflict, rather than side-effects of preventing *the* conflict, i.e., the dreaded nuclear exchange between global superpowers. Consequently, academic and policy circles have started to seriously examine the applicability and adaptability of classical deterrence tools and concepts to these different types of crises, including gray zone ones.

During the Cold War, much of the global security debates seemed to revolve around questions of sustained U.S.-USSR *nuclear* deterrence – studying signaling, technological developments, and policies that generated the credibility of the nuclear first strike deterrent. This bi-polar system was seen at the time as the more stable international order – with multipolarity and WWII to compare to, and the U.S. unipolar hegemony still to come – even though smaller conventional confrontations continued. Years of research still largely relied on the rational choice assumption, analyzing the relative effectiveness of the *punishment* and *denial* aspects of *general* and *immediate* deterrence. Deterrence by punishment was understood to be premised on convincing adversaries that, should they launch a nuclear attack, the harm from a retaliatory strike would far outweigh any anticipated benefits. While the denial aspect of deterrence advocated hardening targets and developing anti-missile defenses, it also served to strengthen signaling that the costs of a potential attack would be unacceptable.

Nevertheless, as noted, the overwhelming interest to avoid the third world war or a global nuclear catastrophe did not stop actors big and small from letting off steam in smaller crises of varying intensity in different domains – giving rise to the academic concept of a stability-instability paradox (Krepon, Jones, and Haider, 2004). With the red line of a nuclear exchange clearly established, *probing and shaping* behavior continued on the sidelines, with adversaries and their proxies using lesser forms of confrontation to identify the limits of the unacceptable, test the strength of alliances, as well as the level of actual commitment to various verbally professed policies and threats.

As illustrated in detail in Chapter 4, international crises have gradually been moving further away from the threshold of any state-versus-state armed conflict (not just a nuclear one) - especially over the past thirty years. The practice of deterrence was maturing, as threats of punishment could be made more specific and tailored by probing adversaries to ascertain intent, and escalation control measures. Furthermore, while attempts to steer adversarial behavior were always part of the broader defense strategy, shaping behavior gradually came to be also recognized as a tool on the spectrum of confrontation – rather than being considered a background activity. In addition, the spectrum of domains for probing actions was also gradually expanding – not only due to enabling technological advancements, but also due to the shifting international norms of behavior that still counted as not-war-making.

Academic work has kept up with these developments: studies started to relax the rational actor assumption, and were increasingly looking at immediate deterrence options – most relevant to the ongoing conventional conflicts. Furthermore, tools for immediate deterrence came to include actions in economic, social, financial, political, and information domains - not just the military. By 2009 and onwards, this behavior was becoming systematic enough that the concept of gray zone warfare began to shape up.

1.4. Signaling

Throughout and long after the Cold War, the probing behavior described above – ranging from statements to foreign and domestic public to trade agreements and the movement of military assets – has been taken as a signal (intentional or not), to be interpreted by the adversary. Indeed, the study of signaling behavior is closely linked to that of the credibility of deterrence: a rich body of literature and models has evolved in an attempt to understand, codify, predict, and induce adversary's reactions to specific behavior (Schelling, 1966; Fearon, 1994, 1997; Morrow, 1992; Tingley and Walter, 2011).

However, the 1990s saw the world turn from a bi-polar great power competition of limited media access into a unipolar stage with multiple regional powers aspiring for greatness, coupled with an increasingly information-rich environment. This made it difficult to view any particular state behavior as a signal only designed for a specific adversary or ally. Furthermore, it became problematic to design signals that would be accurately received and seen as credible.

Nevertheless, signal credibility and accurate reading has always been fraught with difficulty – ranging from imperfect information availability, especially at the height of a crisis, to cognitive biases affecting decision makers. For instance, an extensive study of bargaining in international crises by Snyder and Diesing (1977) found that when a signal was issued in the form of a threat, the targets were able to interpret it correctly only around 40% of the time. Indeed, one of the long-standing explanations of why states end up in conflict has been the misreading of a potential adversary's intent (Jervis, 1976; Deutsch, 1973), including failure to put forward credible deterrent signals (Danilovic, 2001).

The latest analysis of political and military signaling behavior has given rise to several current strands of academic inquiry directly relevant to policy making. One notable trend has been a tremendous interest in studying the **perceptions** of particular actions and statements: comparing the perceptions of the leadership versus the public, as well as those of a signal sender versus the intended receiver (see, e.g., Murauskaite et al, 2019). This has also been fed in part by the increasing availability of historical data concerning the highest level of decision-making: declassified archives and cables, as well memoirs. Another significant strand has been the growing use and analysis of social media – particularly to design information operations (see, e.g., Blane, 2010), which are becoming an integral part of campaigns shaping adversary behavior and are central to gray zone warfare.

1.5. Is Cyber the New Nuclear?

The development and spread of information technologies has become key to the trends in what is considered a conflict and how it is fought. In the 1980s, the world wide web was funded by, and developed as a tool for, the use of military and selected academics – but over

the next decade, it had gradually become a domain for private civilian users and corporations. However, 2005 and onwards, the cyberspace was re-entering national security discourse in the U.S. as a distinct conflict domain. In addition to digital military technologies designed to block and/or intercept various telecommunications signals, interference through means of hacking was getting roped into the defense and security discourse. Namely, the prospects of foreign entities monitoring, deleting, replacing, or leaking information was becoming a serious national security concern. In addition to concerns about an enemy potentially cutting or monitoring access to the internet and/or other telecommunications, efforts were going towards identifying and securing critical infrastructure that could potentially be singled out for targeted enemy attacks of major impact.

Naturally, political, military, and academic discourse soon emerged on matters like the appropriate cost sharing for securing infrastructure in the private sector that was nevertheless of national importance. Unfortunately, a significant gap in expertise soon became apparent: people with utmost technical skills in the cyber domain had little, if any, connection and depth when it came to military strategy and foreign policy – and vice versa. Consequently, the development of cyber strategy, and the integration of cyber capabilities into the broader security paradigm, was largely happening through the search for appropriate analogies.

One analogy particularly popular in American circles was that cyber was the new nuclear: a substantive body of academic literature and experts seasoned in the nuclear discourse was trying to match it to this emerging type of weaponized technology (often with limited success). There was talk of cyber deterrence, posturing, capabilities, and arms control (among other aspects) (see, e.g., Nye, 2011; Goldman and Arquilla, 2014; Lonergan, 2017). Gradually the quest for cyber-equivalence extended across more, and more appropriate, domains looking for military, economic, or political responses that could be considered as good as hacking back (see, e.g., Kreps and Schneider, 2019; Schneider, 2019).

In addition, Betz (2015) argues that since cyber confrontations have become the new normal of daily life across the globe – particularly among adversarial parties involved in more or less active confrontations - what could constitute the end of such a confrontation, or a victory, can only be determined by the target of these cyber offensives. Furthermore, he raises an interesting notion of sub rosa war enabled particularly (though not exclusively) by cyber means. Whereas the use of gray zone tools is often publicly identifiable, with ambiguity surrounding whether a line from competition to conflict has been crossed, in sub rosa war there is definitely a conflict unfolding, but none of the actions are visible (unless deliberately revealed) to parties external to that conflict.

1.6. VNSA and Asymmetric Warfare

The reemergence of violent non-state actors (VNSA) into Western public consciousness with the 9/11 events (discussed above) gave a boost to research studying their role in conflict. Similar to the search for analogies to cyber offensives, some of the most significant research concerning VNSA sprouted from attempts to understand them through the lens of classical deterrence theory. Initially, it was argued that the rational actor assumption does not apply to VNSA (see, e.g., Thomas, 2010), and their lack of territorial base and obligational ties to supporters makes them undeterrable. However, extensive case studies revealed that deterrence by denial had a decent record of success (Payne, 2008) – making the costs of reaching VNSA goals prohibitive seemed to at least deter their specific actions, if not convincing to give up altogether (Davis and Jenkins, 2002). This strand of research seemed to

converge on the notion that the key to prevailing over VNSA was to identify and target what they value most (Davis and Jenkins, 2002; Naveh, 2015) – particular territory, leaders, etc. Arguably, the U.S. attempt to prevail over Al Qaeda and its offshoots in the Middle East by targeted killings of terrorist group leaders also drew support from this approach. However, it bumped against the matter of norms and values: for instance, Uri (2007) argued that in order to effectively deter VNSA, the U.S. must come to terms with a certain level of human rights violations and civilian casualties, often alienating allies, as well as provoking domestic backlash – which successive administrations had attempted to varying degrees. Indeed, the persecution of VNSA acutely raised the question of whether the use of particular tools and approaches to defend liberal democratic values effectively violates and depreciates those values in the process. This ethical question remains ever more acute in the Western search for appropriate responses to tools employed by adversarial state regimes.

Notably, tools and strategies employed in response to the VNSA challenge were seen as more and more relevant to confronting state level adversaries in what became known as asymmetric warfare. Dilemmas like deterring actors of "limited rationality" or the utility of nuclear capabilities against adversaries armed with makeshift weapons gradually became seen as applicable to VNSA like Al Qaeda and to state adversaries such as North Korea (see, e.g., Paul, Morgan, Wirtz, 2009; Arasli, 2011).

In terms of intertwining treatment of VNSA and state adversaries, it is also worth noting the boost in research concerning state relations to non-state actor proxies, and in particular – the principal-agent dilemma. Initially, the concept arose in studying the behavior of state actors considered great power proxies during the Cold War. However, some of the particularly powerful VSNAs were associated with state sponsors whereby they could be considered proxy actors (such as the relation of Hezbollah to Iran, or the Contras to the U.S.). Chapter 6 offers a detailed discussion of the literature concerning patronage and proxy control, as well as the role of proxies – both state and non-state – in international crises.

Finally, it is important to recognize that the acuteness of security concerns presented by VNSA encouraged a rise in inter-disciplinary research. Efforts to understand terrorist motivation and behavior encouraged security studies and international relations work to draw on criminology, psychology, and network analysis – among other areas. For instance, Crenshaw's (1986, 1992) work established (unsurprisingly) the absence of a single psychological portrait of VNSA recruits, and showed the significance of the combination of personal, environmental, social, political, and economic factors leading to the formation and prosperity of such groups. Her insights were further key to the appreciation of the significance of the group level goals and dynamics – understanding the limited importance of an individual perpetrator (contrary to considerable efforts focused on profiling individuals in the hopes of devising a counter strategy). Furthermore, Pape's (2005) extensive case studies focused specifically on suicide terrorism challenged the notion that economic depravity and religious radicalism were pushing people towards this. He argued that suicide terrorism arose as a specific asymmetric warfare tactic in response to foreign occupations by a more powerful democracy – suggesting that the very reason for U.S. presence in the Middle East (to counter terrorism) may in fact be fueling it.

1.7. Non-Military Violence: Outsourcing War

As of 2021, the decline in violence between professional military forces, and state-versus-state war is a well-recognized phenomenon. Instead, the violence seems to have shifted

towards other domains and actors, along with the shift in norms and legal frameworks governing conflict (see, e.g., Kahl, 2006), as well as the development of technology and capabilities of states to carry it out.

Krause (2016) argues that at present conflicts have moved inwards, with inter-state confrontations replaced by intra-state political violence. This phenomenon is discussed further in Chapter 4. This includes oppressive government actions, as well as coups and other attempts to overthrow the government. Nevertheless, with the decline in state-versus-state international crises as a mechanism to reset international power balance, internal crises have retained, and even gained, international significance. This can be clearly seen in the cases of the ongoing civil wars in Syria and Libya, discussed above. Not only is there concern over the fate of alliances and adversarial influence in times of flux but increasing or cutting foreign assistance to various pro- or anti-government groups has become a significant tool in the gray zone conflict toolbox. In addition, closer to the traditional concept of conflict, internal crises continue to raise the question of a benchmark for international intervention – is the bar as high as genocide or the use of WMD (and still, as cases above have shown that is not always reason enough), or is a certain level of unrest a sufficient reason to call for responsibility to protect (R2P)?

Furthermore, with legal reasoning for international action becoming another gray tool – known as lawfare – questions arise where the limits of such rulemaking might lie: if a particular trigger is good enough for the international community to intervene in Syria or Libya, why not in China, Russia, or the U.S.? Another notable trend is the blurring of the lines between criminality and conflict – and the potential cross-applicability of the legal base governing them. For instance, the targeted killings approach to countering VNSA is closer to a policing than warfighting model, and could eventually bring individual criminal culpability to U.S. drone operators. Presently, from a legal perspective, their actions are treated as warfighting, although the targeted countries are not formally at war with the U.S. (Cohen, 2016; Pilkington, 2015).

In terms of perpetrators of violence and relevant international crisis actors, it is also important to note the trend of growing state engagement of private security contractors (instead of national armed forces) for heightened risk missions involving the use of force abroad. Well reported examples range from Russia's use of private military contractors like the Wagner group in Ukraine and Libya (see, e.g., Kragin and MacKenzie, 2020) to America's reliance on professional security companies like Triple Canopy (formerly Blackwater), among others, in Iraq (see, e.g., Swed et al, 2018). Although the very phenomenon of privateers is not new and the practice is historically documented back to at least the middle ages, the current great power tactic is noteworthy, because these contractors are deployed as a gray tool – deliberately seeking legal and political ambiguity, and circumventing the norms and boundaries of conflict.

The conflict trends discussed above are causally linked to a fundamental underlying aspect of who fights - and dies - in a conflict, should adversarial confrontation come to that. Technological advancements are allowing for the saving of a growing number of military lives: not only by adding layers of protection on these persons in the battlefield, but also by allowing for the positioning of soldiers at a greater distance from the battle, and to providing better medical services to the injured. Also, the required soldier training is becoming necessarily increasingly sophisticated - which makes them more precious (to say nothing of the evolving Western social norms that place ever greater value on individual lives (Inglehart,

Puranen, and Welzel, 2015; Halman, 2009). Subsequently, the abovementioned use of corporate rather than national forces for particularly high-risk tasks allows us to paint a more statistically and economically palatable public picture about the Western way of war. More importantly, however, research shows that the high value placed on Western military lives has fundamentally changed targeting decisions, steadily increasing the number of adversary's civilian deaths per military personnel deaths (Wenger and Mason, 2008). This suggests a cold-calculated (though of course not the main) reason for great powers to avoid overt state-versus-state war and look for gray tools instead. Notably, the normative attitudinal stance implied here constitutes the opposite end of the spectrum to the 1990s, where democracy and trade were seen as incentives enough to end international conflict.

2. Competition, Conflict, and Deterrence in the Gray Zone

The previous section reviewed some of the key substantive issues taken up by international relations scholars between 1990 and 2020 as the world witnessed nearly every significant type of power transition and diffusion that one can imagine. If not fully a unipolar world, the dominance of U.S. international leadership and power—which arguably peaked with the Bush Administration's ability to hold together a broad international coalition during the First Gulf War—appeared to be a sure thing. Yet, the U.S. was challenged by a non-state actor in 2001 and goaded into decades of asymmetric warfare by lesser powers. For the past decade, the U.S.'s international influence and power has faced increasingly strident economic and security challenges from Chinese global activities that have grown in scope and frequency. Along with China, Russia has pursued a program of military modernization and technological advance to both conventional and nuclear forces. Finally, cyber-based and other capabilities—like satellite communications, instant access to media from around the globe, 3D printing, and satellite imagery—that in the 1990s were available only to more powerful nation-states, are now literally in the hands of non-state actors, mercenaries, and middle schoolers around the world.

We now move from theory to practice to explore how the U.S., Russian, and Chinese national security concepts have evolved and adapted to these changes and the implications for deterrence and escalation in the gray zone.

2.1 Concepts of Power

The role of a national security establishment is to defend the power of a nation. All states must retain power in order to defend their principles, sovereignty or other prized assets (way of life, history, culture, resources). In the past this was almost exclusively an issue of controlling territory or repelling threats before they reach territory of interest. At present we are in the midst of a maelstrom of exciting and unsettling social and political change. Cyber-facilitated globalization of the services sector of the world economy is shifting the currency of state power from occupation of land to control of information. In most places in the developed world (and many in the developing world), control of information, rather than control of territory is the essence of wealth. Information is money.[20] Information in this context includes financial transactions, foreign intelligence, intellectual property, invention, public media and persuasion, etc. In the current international environment information and

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[20] One might even argue that the ease and speed with which global financial transactions now occur and crypto-currencies have accomplished the reverse as well: money is information.

data rather than control of territory or size of military is the currency of power. Advances in information technology have enhanced military capabilities, precision and effectiveness. They have also enhanced the ability to see and analyze challenges "over the horizon" and to communicate and to conduct business globally.

Although using the internet today can seem as reflexive as breathing, it is worth noting that it was only in 1990 when Sir Timothy Berners-Lee wrote and released the first web browser and some years later when websites of interest to the general public started to appear. In 2014 The British Council included invention of the world wide web as first on its list of "The 80 Moments that Shaped the World" over the past 80 years, calling it "the fastest-growing communications medium of all time."[21] Though scholars date the information age much earlier, access to the information on, and the ability to communicate to, millions through the internet has impacted nearly all aspects of human existence, not only changing the way in which societies evolve, but how our brains develop.

The differences between the U.S., Chinese, and Russian concepts of power, competition and conflict suggest that both in the context of armed hostilities, and during periods of less hostile relations, the three are playing on different fields and with different rules. Nevertheless, each understands that it requires international influence and prestige to achieve their desired positions in the world order. They take active measures both to enhance their own influence, and often to degrade that of competitors. They go about this in different ways and for different purposes that reflect their histories, bureaucratic structures, philosophies and national resources. These in turn condition strategic understanding of the nature of power, national security and challenges to them.

2.2 China and Russia Adapt: Power in the Information Age

Both Chinese and Russian policy outlooks see the U.S. and its defense of the liberal order as a persistent national security threat. As discussed in previous chapters, both have worked to adapt security concepts and capabilities to information-centric "modern warfare". Both states have a long-standing concern with information; what in the U.S. might be called the cognitive domain of conflict. For example, since its founding, the Chinese Communist Party (CCP) has used information control, disinformation, propaganda, and censorship as means to control the Chinese population, and more recently, it has become increasingly assertive in applying these tactics outside China (Copeland, 2019). Russia also has a long history of using deception, misinformation, diversion, and spoofing to control the domestic population. Since the 1990s, Russia has tended to use information for sowing chaos and confusion among its opponents particularly in the Balkans and Europe. It does so using techniques that are not dissimilar from Cold War practices, albeit using more sophisticated technologies. Operations in the cognitive domain are integrated with kinetic force and other non-military sources of leverage, to form the core of the Russian concept of national defense (Thomas, 2004; Kamphuis, 2018). In fact, according to Giles and Seaboyer (2019), these operations are considered as important, as nuclear force to Russian defense.

From the Chinese perspective, international relations is ultimately, a game of ideas, perceptions and beliefs. Coercion and influence occur in the cognitive space more than in the physical. Thus, all forms of information control—ranging from physical and cyber

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[21] Notably, methods for mass producing penicillin came in second; space exploration was 23rd, the Cold War was 37th, and the invention of instant Ramen noodles was 63rd.

communications infrastructure, to influencing news reporting and using market leverage to influence European narratives and Hollywood portrayals of Chinese people and culture — are critical national security activities (Kalathil, 2017).

Like China, Russian leaders view control of information as a critical means to achieving national security. Also, like China, the autocratic Russian government system and norms facilitates use of capabilities in the name of security and defense ranging from conventional military "…clandestine special forces and intelligence operatives, to economic threats, political influence, online and offline information battles, as well as "traditional" subversion" (Johnson and Seely, 2015). Russian military doctrine portrays modern conflict as a combination of information control and manipulation integrated with Soviet legacy concepts regarding the types and methods of warfare (Wagnsson, 2020; Thomas, 2019). For both China and Russia, the purpose of information "warfare" is to continuously manipulate the perceptions of potential opponents in ways favorable their own national interests. It is similar in intent, if not practice, to the U.S. concept of "shaping" the operational environment.

The point is to out-maneuver one's opponent over the long-term, not necessarily to dominate your opponent as a persistent requirement. Its understanding of conflict and the process of establishing the state's national security does not necessarily connote the use of military force that it does in the U.S. In fact, China's strategic outlook includes a preference for using its "economic and financial power in coordination with information power" to achieve its national security objectives (Burns et al, 2019) while reducing the risk to trade and other interests associated with military-to-military operations against the U.S. While Russia has great power ambitions, it lacks great power resources, leading Russia to rely on gray strategies to pursue its interests while limiting direct confrontation with the U.S. and cooperating with China when convenient.

Controlling narratives and information play a central role in Chinese longer-term strategy to "shape" domestic and international opinion and perceived reality potentially decades in advance, and operationally and tactically in crises. As opposed to the U.S. ambition to realize an integrated process by which different stakeholders, departments and agencies apply their own capabilities, i.e., a whole-of-government approach, Chinese and Russian leaders can more readily pursue a whole-of-society, or whole-of-oligarchy approach as the case may be, to integrate the operations of military forces, and government-controlled and private business sectors.

2.3 The U.S. Adapts: The Competitive Space

The 2015 U.S. National Security Strategy (NSS) mentioned international competition only once, as one form of threat to "the arteries of the global economy and civil society." Two years later, the 2017 NSS articulated a broader scope of what constituted national security concerns. It widened was still a tendency to view national security affairs as either in a state on non-conflict (including peace, steady-state, pre-conflict, post-conflict), or of conflict (crisis, armed conflict and war) with no clear characterization of the state within which gray zone challenges from China and Russia—those below the level of armed conflict—were occurring. The 2017 NSS introduced international politics as the "competitive world" in which China and Russia "challenge American power, influence, and interests, attempting to erode American security and prosperity." Yet it also recognized that "competition does not always mean hostility, nor does it inevitably lead to conflict." This is how the idea of gray

zone challenges was in many ways subsumed by the effort to define the space in between peace and war.

The subsequent 2018 National Defense Strategy expanded the idea of international politics as a competitive environment to define the environment in which U.S. defense forces would operate (i.e., the operational environment) as spanning conditions characterized by common interests and cooperation with allied and "adversaries" alike, as well as competition, conflict and warfare. Most recently, the Joint Competition Concept (JCC) that is under development, and the Biden Administration's Interim National Security Strategic Guidance (INSSG), assume cooperation and competition, as well as the potential for conflict, with China and Russia.

One of the inevitable results of this broader view of national security affairs is that the sources of competition (previously simply "threats") and the ways in which it was appropriate to respond to these must be broader as well. This presents a particular challenge for the U.S. as it quickly runs up against bureaucratic and legal barriers that have been in place since the end of WWII. The 1947 National Security Act and subsequent legislation decentralized the bureaucracy involved in national security concerns. The result is that diplomatic, economic, military and informational levers of power are controlled by different parts of the U.S. Government with integration and coordination pulled up to the level of the White House. This has stunted development of an integrated, "whole-of-government" process for applying the range of U.S. national capabilities in the service of national security, which as a result, is seen as the purview of the military, intelligence community and the Department of State.

Thus, while U.S. strategic thinking is currently in a state of flux, remnants of a realpolitik, peace-war paradigm continue to dominate U.S. defense thinking and policy. The U.S. certainly sees itself as a status quo power, defending the liberal, rules-based international order as it seeks to enhance U.S. international influence and protect the homeland. The approach to national security represented in official documents remains U.S.-centric, retaining the presumption that the U.S. has a crucial responsibility for global leadership and preservation of global stability. While there was some evidence of a weakening of this assumption (i.e., that the behaviors of important states were not necessarily directed at or motivated by the U.S.) during the Obama Administration, this was eclipsed by the Trump Administration's preference for unilateral or bilateral solutions to global issues. The refocus on global power competition with China and Russia in U.S. strategy and doctrine reflects a presumption that the most important interactions happen between major powers or blocs.

2.4 Implications for Operating in the Gray Zone

How we look at the world and understand it determines what we think we can do about it. The differences between the U.S., Chinese, and Russian concepts of power, competition, and conflict suggest that both in the instance of armed hostilities and during periods of less hostile relations, the U.S., China, and Russia are playing different games, on different fields, and with different rules. To summarize: the U.S. thinks of conflict and warfare in discrete terms (mainly military and kinetic), and happening largely in the physical space. Though there are efforts now to change doctrine and defense thinking, there are significant historical and institutional reasons for this. China on the other hand, has determined that the new age is not just the Digital Age, but the Information Age and has, rooted in its history, developed a doctrine that focuses on controlling information; conflict is to be waged primarily in the

cognitive space. Finally, Russia is somewhere between these two in that it has used hybrid/unconventional means and information manipulation as tactics to further its military operations.

Though U.S. strategic thinking is currently evolving to accommodate the central role of information as a source of power, as Bragg (2017) writes, "the US is coming late to the party on this" in part because of the dominance of U.S. military technology. As a result, U.S. national security policy and budgets continue to emphasize kinetic weapons and strategies to achieve (military) dominance. This is not to argue that the U.S. defense community has not responded to advances in digital technology. Quite the reverse. However, relative to China and Russia, the U.S. focus on information assurance and information operations, has lagged. While the U.S. has continued to innovate with advanced digital technology to create the types of weapons and maneuvers on display during the First Gulf War and long wars in Afghanistan and Iraq, its basic concept of operations has changed very little. Armed drones may represent a different way of fighting; however, an argument can be made that it is a more effective way to deliver a kinetic strike.

Possessing sufficient might to achieve dominance in military domains, and the ability to punish remain elemental to the U.S. notion of power, defense and conflict. Russia and clearly China, on the other hand, have looked at advances in digital technology and focused on controlling information to address the conditions of the battlefield. There are a number of reasons that Russia and China have gotten out in front of the U.S. on this; some of these can be changed others not. Specifically, Cheng (2019) argues that democratic societies, governed by consensus and rule of law place more stringent constraints on activities abroad than those to which authoritarian regimes are subject. As a result, leaders can have difficulty responding to gray zone actions promptly until those actions pose unambiguous threats to national interests, are extremely violent, or blatant violations of international law. In the series of laws that make up the United States Code govern how U.S. government agencies involved in foreign affairs are organized, trained and what specifically they are legally authorized to do and what they are prohibited from doing.[22] By contrast, Chinese security doctrines, "encompass all national … resources, whether military, civilian, or non-governmental" (Cheng, 2019).

There is a set of activities, for example, like construction of ICBMs, destructive cyber-attacks, provocative shows of military force, from which threat signals can be inferred without much information about the broader strategic context. However, one of the defining characteristics of the gray zone is that the presence and sources of threats to actors' interests are often difficult to detect. It can simply be unclear whether actors' interests are fundamentally in conflict, or what a threat might look like. As a result, there are no actions or sets of actions that can be used the indicate a gray zone challenge or conflict without knowledge of the broader strategic context and a potential challenger's intent. Unfortunately, as discussed previously, one of the distinguishing features of gray zone activities is ambiguity about the intention behind specific actions.

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[22] For example, Title 10 of the United States Code outlines the authorized function and responsibilities of the armed forces; Title 22 specifies the legal authorities of the State Department and related organizations (e.g., USAID) for conducting foreign relations and development aid, and Title 50 governs the U.S. national security establishment including civilian control over the military, limitations on intelligence and surveillance operations.

2.5 If they are meant to avoid violence, why are gray zone challenges such a problem?

By definition, gray zone challenges are conducted in ways to avoid escalation to direct, open violence among state competitors. However, there is significant risk of misperception and inadvertent escalation when the ambiguity and uncertainty in crises involving major adversaries are heightened. That is, the very ambiguity that is intended as a source of risk reduction can produce the opposite outcome, decrease the effectiveness of deterrence and increase the likelihood of conflict escalation. Ambiguity can lead a challenger to miscalculate a defender's intent and resolve to act. On the other hand, ambiguous intent, unclear attribution, and difficulty determining the nature of an activity increases uncertainty in a defender's calculations about whether, when and how to respond. This can lead to inadequate response that emboldens the challenger, or overreaction that runs the risk of escalating a crisis. A well-executed gray zone challenge will constrain the defender's ability to identify and justify any response, particularly a military one.

Two of the most confounding aspects of gray zone challenges have been use of military or quasi-military capabilities in non-conventional[23] ways, and use of non-military capabilities to achieve security objectives.

Figure 3.1 Escalation Thresholds into and from the Gray Zone
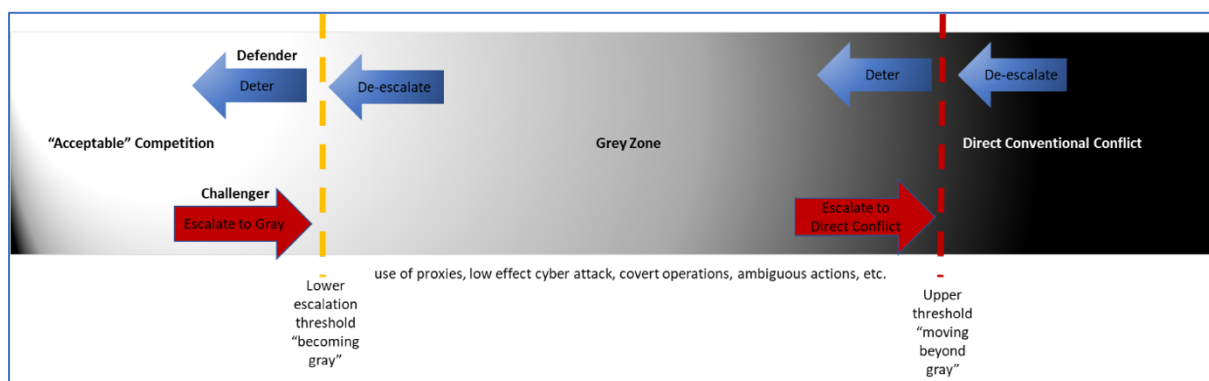
As shown in Figure 3.1, there are two escalation thresholds of concern involving the gray zone: the lower threshold is escalation from what a defender perceives as normal, or tolerable competition into the gray zone to a gray zone in which a challenger's activities remain below the level of armed conflict but appear to the defender to pose an unacceptable challenge to the defender's interests. The upper escalation threshold is the point at which gray zone challenges transition into direct, armed conflict.

Successfully managing escalation into and out of the gray zone requires vigilant attention because gray zone activities are specifically designed to achieve security gains with very low risk of escalation. For a challenger, ambiguity is an important tool for managing the probability of escalation especially when it muddles what has happened, by whom or what an appropriate response may be. Gray zone activities often aim to render militarized response disproportionate to the original activity. Consider for example, the conundrum for U.S. leaders presented by the build-out of Mischief Reef in the South China Sea. While certainly taking place in disputed waters, the policy question was whether reclaiming a small portion

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[23] The term non-conventional is used here to avoid confusion with the concepts of unconventional threats or unconventional war, which are used in reference to providing assistance to proxy actors, primarily resistance movements and insurgencies.

of a reef in the South China Sea for reasons not fully apparent rises to the level of a U.S. response. How should this be done and on what grounds? In addition, use of the ostensibly civilian blue boats to conduct otherwise military operations, was intended to confound, and delay the ability of foreign naval forces to respond.

2.6 Deterrence in the Gray Zone

Are current concepts of deterrence sufficient for deterring escalation involving gray zone actions? In its most general form, deterrence theory rests on the assumption that it is possible for a defender to accurately communicate its intent to deliver a punishing response if the challenger chooses to take a prohibited action, and that this message can be made credible on two counts: that the opponent believes that the deterrer possesses both the capability and the will to respond when and how it has indicated (i.e., that the threatened consequence will occur in the event that deterrence fails). In other words, that a defender is believed to have the capability and the will to respond punitively, and that it can credibly communicate red lines (i.e., escalation thresholds) including which actions will be seen as intolerable enough to provoke a response. Gray zone activities can challenge each.

Challenge to Deterrence Credibility: Gray zone activities challenge the credibility of deterrence threats by clouding intent and attribution. Gray zone activities are designed to degrade a target's ability to correctly characterize an action, including who is responsible, what is happening, and the degree of threat it poses if any. Ambiguous, deceptive, or hidden challenges reduce the likelihood that a defender can diagnose and attribute an "attack" as an attack committed by a specific actor; and diminish the credibility of a response to otherwise benign or ambiguous activities that fall short of catastrophic damage or loss of life. The capability to quickly diagnose what has occurred and who is responsible are essential to deterrence in the gray zone. Challengers need not believe that they would never be found out in order for deterrence to fail in the gray zone, just that their interference remains undetected long enough to achieve the desired operational, tactical or political objective. Much of Russia's activities in Crimea essentially created fait accompli. Of course, inability to rapidly diagnosis an attack and who is responsible effectively renders most deterrence efforts useless. An adversary that does not fear being caught is incentivized to "go grey" in any conflict.

Challenge to Deterrence Capability: Gray zone activities can also challenge deterrence capabilities. This can happen in two ways. First, by gray zone activities below the level of armed conflict such as some cyber-attacks that directly degrades or destroys a military or other deterrence capability. Second, it can happen less directly with application of non-military, non-kinetic leverage to diminish a defender's capability. The deployment of U.S. Terminal High Altitude Area Defense (THAAD)[24] missile defense to South Korea following North Korea's fourth nuclear test in January 2016 is an interesting case of the latter. In this instance, installation of THAAD missile launchers and associated radar in South Korea provoked a text book gray zone response from China. In addition to issuing a joint statement with Russia warning of "further countermeasures" (Xinhua, 2017) if the installation continued, China initiated an aggressive campaign of economic retaliation against the South Korean entertainment and tourist industries, and poetically, against South Korea's Lotte Group the previous owner of the land where the THAAD system was installed, forcing

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[24] THAAD, is a U.S. missile defense system designed to defend against short- and medium-range missile attack. China argued that the system would "gravely sabotage" the security interests of China and other regional states (Astorino-Courtois and Bragg, 2019).

closure of 75 Lotte stores in China for "inspections failures" (ISDP 2017). The financial toll from the retaliation on Lotte alone has been estimated at around $1.7 billion. According to the Bank of Korea, China's actions reduced South Korea's expected economic growth for 2017 by 0.4 percent. In the end, South Korea stopped THAAD installment and announced it would not participate in the broader U.S. missile defense network (Panda, 2017).

Conclusion

Though they can be difficult to distinguish, most gray zone activities are parts of larger, multi-layered gray zone challenges that combine activities which individually are non-threatening, but when combined do pose serious threat to a defender's interests. There are four tactics that actors generally use to mask intent and generate ambiguity. The first is to vary the time scale of sets of activities for example producing immediate effects such as fait accompli, or creating effects incrementally via slow, decades long campaigns. Gray zone challenges that chip away at international rules and norms, such as China building islands in contested waters, are often of this type. The second, is to conduct activities in multiple military and non-military domains. China's use of economic coercion, BRI investment, and narrative campaign highlighting U.S. unreliability and selfishness constitute a multi-pronged effort to enhance Chinese international influence while diminishing that of the U.S. A third, tactic for generating ambiguity is to broaden the attack surface and objectives beyond commanders and degrading their ability to command and control military forces. For example, gray zone activities may seek to confuse civilian individuals' and group perceptions of reality; challenge the legitimacy of state leaders; and manipulate political narratives and global opinion. A final source of gray zone ambiguity is to vary the timing and order of campaign activities, for example, occurring simultaneously, sequentially, or synchronously.

The types of gray zone challenge—that may take place in multiple domains, on multiple time scales, in unusual order, and target multiple military and non-military targets—numbers well into the thousands. The most difficult gray zone challenges employ creative use of all four.

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Chapter 4: One Hundred Years of International Crises, 1918-2018

Jonathan Wilkenfeld and David Quinn

The twentieth and early twenty-first centuries have been an era of widespread turbulence. There were two general wars (1914-1918, 1939-1945), and many smaller wars across all regions of the world. Overall, there were over 487 international crises during this period, according to the International Crisis Behavior (ICB) dataset (Brecher et al., 2021). There were major revolutionary upheavals in Russia, China, the anti-Colonial movement in Asia and Africa, and more recently as the Arab Spring spread across the Middle East and North Africa. There is an array of protracted conflicts/enduring rivalries including India-Pakistan, Arab-Israel, Taiwan Strait and the Korean Peninsula. Ethnic conflicts, both intra- and interstate, have included Biafra in the mid-1960s; Bangladesh in the early 1970s; Sri Lanka in the early 1980s to 2009; Rwanda, Yugoslavia, the DRC in the 1990s; Iraq and Afghanistan in the 2000s, and the present conflict in Yemen among others in the 2010s. There have also been instances of severe economic dislocation, notably the Great Depression of the 1930s, oil price shocks in the 1970s, the international financial crises of the 1980s, 1990s and the 2000s, and the economic dislocation engendered by the Coronavirus Pandemic of 2020-2021. And for the first four decades following the end of World War II (1946-1989), there was a Cold War struggle between the United States and the Soviet Union for global dominance. As the 100-year epoch since 1918 concludes, we are witnessing stark competition for power among the system's three dominant actors: the United States, Russia, and China.

Most recently, there were 54 international crises during the first 17 years of the 21st century, among them several notable clusters. One cluster, still very active, is the North Korean Nuclear protracted conflict, with the DPRK (North Korea) and the United States as the principal adversaries, which generated international crises in 2002, 2006, 2009, 2013, and 2017. Three "Inter-Korea" crises involving North and South Korea, *Cheonan Sinking* and *Yeonpyeong* in 2010, and *Korean Land Mine* in 2015, also occurred during this period. There were also 14 international crises in Africa, among them *Chad/Sudan I, II, III, IV* in 2005, 2006 and 2007; three intra-region crises between Russia and Georgia, in 2002, 2006, and culminating in their 2008 4-day war; four Middle East crises comprising *one* between Iraq and a U.S. Coalition in 2002-2003 (*Iraq Regime Change)*, the second *Israel/Lebanon War* in 2006, the *Syria/Turkey Border Incidents* crisis in 2012, and the *Syria Chemical Weapons* crisis in 2013. Two European crises occurred during this period - the *Russo-Georgian War* in 2008 and *Crimea-Donbass* in 2014. Conspicuously, there were no ICB crises in the Americas during this most recent 17-year period.[25]

1. Features of the Contemporary International System

Figure 4.1 traces conflicts in the international system from 1946 to 2020. The number of international crises has shown a relatively steady state of about three crises per year over the past three decades since the end of the Cold War. However, intrastate conflicts have shown a steady increase since the end of World War II, interrupted briefly during the immediate years following the end of the Cold War, and now steadily increasing, reaching the highest level in

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[25] Summaries of all crises referred to in this section can be found at http://www.icb.umd.edu/dataviewer/.

the entire post-World War II era in the most recent decade. Combined with a slight uptick in interstate conflict during the past decade, the level of total conflict in the international system is at its highest point since the end of World War II.

Although instability and turbulence in the international system have never been the exclusive domain of unresolved conflicts among nation-states, the stark difference in frequencies between the two types of conflict and crisis is forcing us to rethink the institutions and mechanisms that in the past have served various conflict management and resolution roles for disputes between nation states. One of the key outcomes of the shifting of conflict to the intrastate level is the frequency with which these conflicts recur – a sure symptom that mediation and other interventionist mechanisms adopted by the international and regional communities are not doing their job. One of the greatest challenges facing us today involves achieving real and lasting resolution of these recurring and seemingly intractable internal conflicts. And alarmingly, not only are internal conflicts on the upswing in recent years, but the frequency of interstate crises is showing a distinct increase in recent years as well. Taken together, these trends point to a particularly unstable international system today.

Figure 4.1: Global Trends in Armed Conflict, 1946-2020.
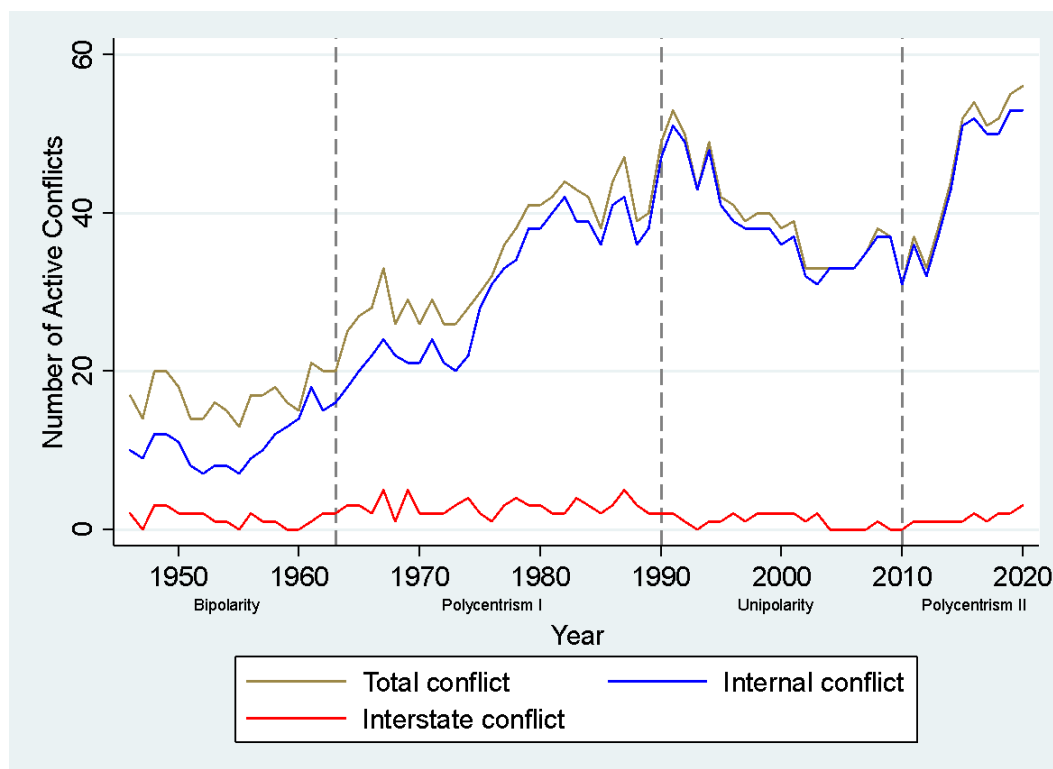
NOTE: This figure is based on data from the most recent version (21.1) of the Uppsala Conflict Data Program's/Peace Research Institute Oslo's Armed Conflict Dataset (Gleditsch et al. 2002; Petterson et al. 2021).

The second emerging feature of the contemporary international system is the so-called **gray zone**. This has been conceptualized as a space between war and peace where major powers spar with each other indirectly or through the actions of their proxies. (For an extended discussion of the gray zone phenomenon, see Chapter 2 above). Gray zone conflict occurs when actors purposefully use multiple elements of power to achieve political-security objectives with activities that are ambiguous or cloud attribution and exceed the threshold of

ordinary competition, yet fall below the level of large-scale direct military conflict, and threaten national interests by challenging, undermining, or violating international customs, norms, or laws (Bragg et al. 2016). The link between gray zone and crisis could not be clearer: from 2005 through 2016, 50% of international crises were directly related to gray zone conflicts, including North Korea crises of 2009, 2010 (2), 2013, 2015; Syria 2012 (2), 2013, 2015, South China Sea (2012, 2014), East China Sea involving Japan and China in 2016, and URI Base Attack involving India and Pakistan 2016.

A third central feature of the international system today is a class of crises arising from **transnational threats to human security**. Climate change, refugee flows, cybersecurity threats, and massive inequality within and between nations, have contributed to a sense of crisis that is beyond the ability of single states to address. The challenges and opportunities facing the international system today are easily recognized. They differ from those identified by previous generations only to the extent that their impact is on a grander scale – organizations with conflicting agendas and interests become societies and nations with the use of violence and war at their disposal; local pollution becomes a contributor to global warming and climate change; poverty and income disparities become a flood of illegal immigration into Southern Europe and the southwestern United States (Wilkenfeld 2016), and the treatment of and development of vaccines against the COVID-19 virus as a global threat stretch our collective capacity to adequately address. A key question that we must grapple with is whether aspects of these transnational crises can be mitigated through various international and regional institutions and if so, how must these tools – mediation, for example - be adapted to better cope with evolving crises. Or do issues like sovereignty and universal enforcement mechanisms stand in the way of crisis management through collective action in these areas?

All three of these features of the current international system highlight new actors and new modes of interactions that are not necessarily part of internationally accepted norms of behavior. In the Syrian civil war, for example, a toxic mix of major and regional powers, non-state actors, and international and regional organizations, have stood in the way of an effective negotiated outcome for more than a decade. And as noted, transnational threats to human security lie beyond the ability of single states to address, and require a collective approach. What unifies these current features is that they all contain the underlying conditions for crises that can threaten the stability of the international system. We turn now to a closer look at international crises through the prisms of onset, escalation, de-escalation, and impact.

2. Defining Crisis

We feel the best way to think about conflict/crisis is as a continuum. At some point in an ongoing conflict, perhaps over land or resources, control of government, borders between states, etc., that conflict, whether interstate or intrastate, reaches crisis proportions – widespread protests, threatening troop movements, violations of cease fires, or actual violence. That is, there has been a change in the disruptive interactions between the parties, resulting either in hostilities or in a higher than normal likelihood of violent hostilities. At that point, the conflict has escalated to crisis. It need not entail violence, but there is a higher than normal probability that violence may ensue.

ICB defines a *foreign policy crisis* for an individual state actor as a situation with three necessary and sufficient conditions deriving from a change to the state's internal or external environment. All three are perceptions held by the highest-level decision makers of the state actor concerned: *a threat to one or more basic values*, along with an awareness of *finite time for response* to the value threat, and a *heightened probability of involvement in military hostilities*.

While this definition of crisis concentrates on the perceptions and behavior of a single state, interactions between and among states in crisis contribute to the creation of an *international crisis*. There are two defining conditions of an international crisis: (1) a change in type and/or an increase in intensity of *disruptive*, that is, hostile verbal or physical *interactions* between two or more states, with a heightened probability of *military hostilities*; that, in turn, (2) destabilizes their relationship and *challenges the structure* of an international system – global, dominant, or subsystem (Brecher and Wilkenfeld, 1997).

These definitions were developed to fit what we considered to be universal characteristics of crises, and indeed they served the scholarly and policy communities reasonably well in analyzing crises across 100 years through five separate international systems and a world war: Multipolarity (late 1918-1939); World War II (1939-1945); Bipolarity (1945-1962); Polycentrism I (1963-1989); Unipolarity (1990-2009); and Polycentrism II (2010-present). Indeed, as *A Study of Crisis* was going to press in 1997 (Brecher and Wilkenfeld, 1997), unipolarity seemed to be an apt description of a system with a single pole of military power and multiple poles for other elements of power in the international system. The current Polycentrism II system highlights a return to a system of two leading states and more than two centers of power.[26]

Today's international system is undergoing considerable change, and yet core elements continue to define it. Despite warnings about the demise of the nation-state that date to the end of World War II, it remains the system's dominant organizational structure. This particular institutional form has endured while the issues facing the international system have become increasingly multi- and trans-national in character. In regard to conflict and crisis, the international community has developed an impressive array of institutions specifically charged with dealing with armed conflict. For example, in the post-Cold War era, almost 45% of all international crises have been the subject of mediation efforts on the part of third parties ranging from international and regional governmental and non-governmental organizations, groups of states, and individual states and their leaders. That proportion has increased in recent years to nearly 60% in the case of violent intra-state ethnic crises, particularly in Africa.

Nevertheless, in the past 10 years, the greatest threat of armed conflict has come from countries that recently resolved a serious armed conflict. The current (2018) rate of conflict recurrence is at its highest level since the Second World War. And this failure to bring conflicts to successful termination characterizes both interstate and intrastate conflict and crisis

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[26] Recently, Brecher has argued that unipolarity has evolved into a system which he has termed unipolycentrism (Brecher, 2016), that is, one that combines *power unipolarity* (the United States) and *decisional multipolarity* (notably the United States, Russia, China, France, Germany, Japan, and the United Kingdom) (Brecher, 2008).

The shift from interstate to intrastate conflict has been accompanied by a dramatic increase in recent years in conflict recurrence as noted above. Those conflicts that have been active for decades or longer are what the experts call intractable. That is, these are "conflicts that have persisted over time and refused to yield to efforts to arrive at a political settlement – through either direct negotiations by the parties or mediation with third-party assistance" (Crocker, Hampson and Aall 2005). A list of intractable conflicts today usually includes Sudan and South Sudan, India and Pakistan over Kashmir, the Korean Peninsula, Israel-Palestine, Ethiopia and Somalia, the Democratic Republic of Congo, and Afghanistan. In fact, of the 39 armed conflicts that became active in the last 10 years, 31 were conflict recurrences – instances of resurgent, armed violence in societies where conflict had been largely dormant for at least a year.

This discussion of conflict and crisis recurrence is closely related to a central concept developed by the ICB Project over the years: *Protracted Conflict* (Brecher, 2016). About 60% of all international crises coded by ICB occur as part of one of 35 protracted conflicts that have been active during some or most of the past 100 years, from the end of WWI to 2018. Often these are the most serious crises occurring in the system. Some protracted conflicts recur over the same issue – e.g., Chad-Libya, Western Sahara. Others encompass diverse issues – e.g., India-Pakistan, Arab-Israel. Table 4.1 lists the 15 protracted conflicts that were ongoing as of 2017.

Table 4.1: Ongoing Protracted Conflicts as of 2017

Protracted Conflict	Year of Onset (post-WWI)	Number of Crises	Crisis Actors
Greece / Turkey	1920	11	Cyprus, Greece, Turkey
Iran / Iraq	1934	7	Iran, Iraq, Kuwait, Saudi Arabia
India / Pakistan	1947	15	India, Pakistan
Arab / Israel	1948	28	Egypt, Iraq, Israel, Jordan, Lebanon, Syria, Uganda
Taiwan Strait	1948	5	China, Taiwan, U.S.
Afghanistan / Pakistan	1949	5	Afghanistan, Pakistan
Inter-Korea	1950	9	Democratic People's Republic of Korea, Republic of Korea, U.S.
Ethiopia / Somalia	1960	7	Ethiopia, Kenya, Somalia
Western Sahara	1975	10	Algeria, Maurtiania, Morocco
China / Vietnam	1978	5	China, Vietnam
Georgia / Russia	1991	4	Georgia, Russia
North Korea Nuclear	1993	7	Japan, Democratic People's Republic of Korea, Republic of Korea, U.S.
Democratic Republic of Congo (Zaire) / Rwanda	1996	3	Angola, Chad, Democratic Republic of Congo (Zaire), Namibia, Rwanda, Uganda, Zimbabwe

An ongoing protracted conflict always incorporates the conditions for further conflict and crisis. As Brecher (2016) states, the most likely conditions for the onset of a protracted conflict are both tangible (disputes over territory, power rivalry, access to economic resources) and intangible (competing ideologies, identity conflict between groups with distinct identities, and rivalry among political leaders). Some or most of these six conditions

are present in the causal setting of many protracted conflicts. In conflict and crisis prevention, our interest is in the precipitating causes that move a protracted conflict into crisis mode. The fact that the same actors, or rivals, experience periodic crisis eruptions within prolonged protracted conflicts is a subject for further analysis.

In this environment of mutual hostility, some of the parties to a crisis have a history of experiencing previous crises with the same adversaries. That experience is based in part on having previously achieved crisis management, but not conflict resolution. That history will impact the way they perceive threats and act on them in the future. In a protracted conflict environment, as compared to what we might term a one-off crisis, mechanisms that states may adopt to attempt to manage crises, like deterrence, may therefore have a different meaning.

Related to this process is the fact that over 57 percent of the 35 interstate protracted conflicts active during the past century (20 of 35), with deep historical roots[27] have in fact terminated. These include Angola 1975-1988, Chad-Libya 1971-1994, Costa Rica/Nicaragua 1918-1955, France-Germany 1920-1945, Soviet Union-United States 1917-1989. Others have remained stubbornly in place after many decades: Arab/Israel 1948-, India/Pakistan 1947-, Taiwan Strait 1948-, China/Vietnam 1978-. We need a better understanding of the circumstances that led to final termination of some protracted conflicts, while others continue to this day. Were there differences in the way escalation and deterrence were handled that led to termination of the entire PC, while others continued?

Tying these ideas together, during the current period, the greatest threat of armed conflict has come from countries that recently managed a serious armed conflict. The current rate of conflict recurrence is at its highest level since World War II. One of the greatest challenges facing the international community involves achieving real and lasting resolution of these recurring and seemingly intractable conflicts.

On the intrastate front, in the post-Cold War era, civil wars last almost four times longer, are less likely to terminate in agreement, and are more likely to recur than interstate wars. Fifty-seven percent of states that experienced a civil war since the end of WWII also experienced a civil war recurrence. And some civil wars have recurred *multiple* times. Walter (2013) lists the following cases: Iraq, Afghanistan, Angola, Burundi, Chad, DRC, Indonesia, Laos, Myanmar, Philippines, Rwanda, Somalia, Sri Lanka, and Sudan.

Were all of these recurring intrastate conflicts self-contained, we might argue that while the tolls on human life are terrible, they are not the primary concern of the international community and its conflict management and resolution institutions. But these conflicts rarely remain local; rather, they spill over into neighboring countries and often precipitate intervention by multiple third parties determined to protect their own interests and those of their proxies.

3. Phases of Crisis

Despite the steady decline in their occurrence relative to the frequency of intrastate crises, international crises remain a key ingredient of potential instability in the international system.

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[27] Some protracted conflicts have recurred after many years, notably Yemen and US-Russia.

With all major powers and some mid-range powers armed to the teeth with conventional and nuclear arms, the dangers that interstate crises and conflicts pose will remain salient for a full understanding of conflict dynamics.

Michael Brecher and his collaborators on the International Crisis Behavior (ICB) project identified four distinct phases of crisis, from onset, escalation, de-escalation, and impact (Brecher 1993, 2016).

Onset identifies the initial phase of an international crisis. In this pre-crisis period, low or no value threat perceived by a state's key decision-makers yields to higher threat perception and increasing stress. Since conflict and stress are pervasive in the international system of fragmented authority and unequal distribution of power and resources, a crisis occurs only when there is a significant change in the intensity of disruption between two or more states and in the threat perception by one or more of the states involved. Operationally, onset is indicated by the outbreak of a crisis. It is worth noting that hostile interactions need not include violence, but there must be a perception that the situation could escalate to violence.

Brecher identifies the four key areas of focus when considering crisis onset:
1. Under what conditions is an international crisis most likely to break out?
2. When is a state most likely to initiate a crisis for another member of the international system?
3. What are the conditions in which a state is most likely to be a target for a foreign policy crisis, that is, what explains a state's vulnerability to crisis?
4. How do states cope with the onset of a crisis (Brecher, 1993: 53)?

We can identify factors that, through a network of complex interactions, impact the likelihood, severity, and susceptibility to various crisis management and conflict resolution institutions and procedures. These factors consist of the structure of the international system in terms of polarity; whether the crisis has occurred at the dominant system or subsystem level; conflict setting in terms of whether or not the crisis is part of an ongoing protracted conflict (see discussion of protracted conflict above); relative strength or power discrepancies of the actors involved; ages of the actors; regime type, duration and stability; and geographic distance of the actors from each other (Brecher, 1993).

In a classic international crisis, preconditions are those factors that must be present in order for a crisis to break out--an unresolved border/territorial dispute, simmering ethnic or religious divisions between two countries, history of animosity and past conflicts/crises, etc. A precipitant is like a catalyst, an event/occurrence that tips one or both parties over the edge - an escalation - and results in a crisis being triggered for one or more of the ultimate crisis actors. The precipitant may be a natural disaster resulting in large-scale migration or a movement of refugees from one state to another, a coup with support (or alleged support) from an adversary, a troop movement, an unfavorable ruling against one of the parties by the International Court of Justice (ICJ), a disputed election, etc.

The India-Pakistan protracted conflict, dating from the 1947 partition creating separate Indian and Pakistani states and still unresolved today, demonstrates the tinderbox that these types of intractable conflicts pose for the international community. Replete with powerful, nuclear-armed states, ethnic and religious divides, and militant non-state actors, the preconditions for crisis are always present, waiting for a precipitating event or catalyst. Their most recent crisis, over Kashmir, involved an attack on an Indian army base in the town of Uri from 18 to

20 September 2016. Jaish-e-Mohammed (JeM), a Sunni extremist organization operating out of Pakistan, was blamed by India as the culprit of the Uri attack. India accused Pakistan of providing military assistance to the militants, which Pakistan consistently denied. Nevertheless, evidence indicates that Pakistan regularly supported separatist organizations operating within the Kashmir region. JeM and other organizations had been used by Pakistan's Inter-Services Intelligence (ISI) as proxies in order to achieve its goals within Kashmir. Pakistan provided JeM with training, arms, and funding, as well as a base from which to launch attacks into India. Pakistan insisted that it only provided moral and diplomatic support to the Kashmiri people.

Among the manifestations of an evolving international system, we identify two key factors that have influenced the way crises have been triggered, and how they have been managed by the system - the gray zone, and the rise of non-state actors.

The concept of precursor and its link to the onset of international crisis takes on a somewhat different structure in a gray zone environment. In such situations, the precursor to crisis may be an act by a non-state actor, either as a proxy for one of the states involved, or as a legitimate third-party actor on its own. Such a gray zone precursor is not under the full control of any of the crisis actors, or only partially under control if a proxy, and therefore its acts can disrupt the normal/regular pre-crisis and crisis interaction patterns and norms that state actors typically apply to crisis situations. In other words, gray zone crises involving non-state actors constitute a unique but increasingly frequent set of crisis cases.

What do the data tell us about the role of non-state actors in contributing to crisis onset? In a recent study (Beardsley, Quinn, and Wilkenfeld 2017), the authors found that for the 105 crises that occurred in the period 1987-2015, 44 involved non-state actors, with 24 of these crises actually having been triggered by a non-state actor. For example, an international crisis was triggered for Chad on 5 May 2009 when the Sudanese-backed Union of Resistance Forces (URF/UFR) crossed the border from Sudanese to Chadian territory. Chad's major response consisted of both an accusation toward Sudan that same day and, most importantly, a military attack against the rebels two days later. On 5 May, Chad publicly accused Sudan of backing the rebel incursion. This triggered a crisis for Sudan. An example of a crisis that was indirectly triggered by the actions of a non-state actor was the Libyan Civil War Crisis of 2011. Escalating mass protests against the Gaddafi regime were a tipping point and led to a defiant speech by Gaddafi on February 22, 2011. The speech was coupled with a massive military response on the part of the regime. The combination resulted in a crisis for the United States, Great Britain, France, Canada, Italy, and Qatar. Ultimately the United Nations authorized the implementation of a no-fly zone in order to protect Libyan civilians.

The **Escalation** phase denotes a much more intense disruption than onset and with it a significant increase in the likelihood of military hostilities. At the actor level, perceptions of time pressure and heightened war likelihood are added to more acute threat perception. This is the period of maximum stress for crisis decision makers.

The following are some of the questions that can guide an analysis of this phase of a crisis.

1. When can a low-stress onset phase be expected to escalate to a full-scale international crisis, and when will it abort?
2. Under what conditions is international crisis escalation most likely to be violent?

3. What are the conditions that will most likely induce a state to escalate a foreign policy crisis?
4. When is a state most likely to employ violence in escalating a foreign policy crisis?
5. What are the conditions in which a state is most likely to be vulnerable to violent crisis escalation?
6. How do states cope with the high stress of the escalation phase, whether it is characterized by no, low, or severe violence? (Brecher, 1993: 139-140)

A crisis event in the 25-year protracted conflict over North Korea's nuclear program began on February 12, 2013, when North Korea conducted a nuclear test, triggering a crisis for South Korea, the United States, and Japan. Japan's major response was to call for an emergency meeting of the UN Security Council. South Korea and the U.S. responded in a series of moves that quickly escalated the crisis, including the staging of large-scale joint military drills. South Korea further escalated the crisis by unveiling a new cruise missile which was capable of striking anywhere in North Korea, and deployed destroyers off its eastern coast. North Korea escalated the crisis further by verbally nullifying the 1953 Korean War Armistice Agreement, and shutting down lines of communications with South Korea. In a final escalatory move, North Korea pulled its workers out of factories in the southern Kaesong Industrial Region, which had been a joint venture between North and South Korea. Ultimately, it was a combination of economic concerns and Chinese pressure on North Korea that led to the eventual de-escalation of the crisis in August 2013. More recently, on July 3, 2017, North Korea performed a test of a new type of intercontinental ballistic missile (ICBM). Based on the demonstrated capabilities of the missile, some analysts believed it could reach Alaska but was not capable of reaching Hawaii. This ICBM test launch triggered a crisis for the United States, Japan, and South Korea. This was the seventh crisis in the ongoing protracted conflict between the United States and North Korea related to the North's nuclear-weapons program.

De-escalation connotes the winding down of an international crisis, in which there is a notable reduction in hostile interactions among the principal adversaries leading to accommodation and crisis termination. For the crisis actors, there is a decline in perceived threat, time pressure, and war likelihood toward their pre-crisis norms. This is accompanied by decreasing stress levels for decision-makers.

In policy terms, the decline of disruptive, often violent, interactions among states to a non-crisis norm--what Azar (1972) has called a Normal Relations Range--is certainly a goal of members of the international community, including major powers and international and regional organizations. Nevertheless, research on the de-escalation phase of the crisis has been largely unsystematic. While research and analysis on crisis warning, forecasting, and management has been pursued by both qualitative and quantitative scholars, the overall process of moving from escalation to de-escalation remains understudied.[28]

The de-escalation phase of a crisis is often difficult to pinpoint in a gray conflict environment. As the frequency of gray zone conflicts has increased, often characterized by an array of non-state actors that do not adhere to the norms and traditions of the international community, the seeds of the next conflict and crisis remain stubbornly in place during the de-

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[28] See Chapter 5 for extended discussion and analysis of the choices made by decision makers either to escalate, match, or de-escalate in their behavior vis-à-vis their adversaries.

escalation phase. In a sense, there are simply too many actors and issues for an overall resolution of a crisis to take root.

In addition to the impact of gray zone and non-state actors on the manner in which crises are triggered, we note the impact of these factors on the de-escalation phase of crisis, as manifested in the way crisis management is undertaken, particularly with regard to intervention. The mix of state and non-state actors in typical gray zone conflicts/crises means that normal patterns of crisis management, involving negotiation, mediation, or even armed intervention by regional and international organizations in peacemaking and peacekeeping roles may have limited impact. The non-state actors that play roles in many of the gray zone crises today do not come into these situations with sets of norms and expectations that have been generally recognized by the international community. Even the rogue states that we have come to recognize in the international system over the past several decades – North Korea, Iran, Libya - have to some extent played by some fundamental set of rules governing behavior and expectations. That is not the case with non-state actors, which often make up for their lack of power and resources by engaging in behavior that falls outside of common practice - terrorism, criminal behavior, cyberwarfare, etc. For example, the general tenets of deterrence theory, largely based on power relations among the parties to a conflict, are often not applicable to non-state actors, whose motivations for actions are dictated by calculi different from those generated by conventional power relationships.

The manner in which crises terminate also reflects the influence of gray zone conflict and the active roles that non-state actors play in international crises today. The presence of non-state actors, sometimes as only partially controlled proxies of nation-state crisis actors, can prevent full conflict resolution because they may not be parties to whatever agreements are reached. Or even when they have participated in conflict management talks, their reliability is often questionable, often because of factionalization within their own ranks.

The Crimea-Donbass crisis (February 22, 2014 - February 18, 2015) has been viewed as a classic gray zone crisis, and it featured significant involvement by non-state actors. In particular, in the Donbass stage of the crisis which followed the formal annexation of Crimea by Russia on March 18, 2014, pro-Russian militants in Donbass took control of several government buildings on April 7, 2014 and later declared independence from Ukraine – in the form of the Donetsk People's Republic (DPR) and the Luhansk People's Republic (LPR) – following referenda. This set off a war between Ukrainian security forces and pro-Russian militias in Donbass, supported by Russian arms and widely suspected to have included Russian military members.

The complexity of the mediation effort in the Donbass phase of the Crimea-Donbass crisis of 2014-2015 illustrates the difficulty of international intervention in the form of mediation in gray zone crises involving non-state actors. In February 2015, a renewed round of talks occurred, this time initiated and led by German Chancellor Angela Merkel and French President Francois Hollande. Merkel and Hollande mediated direct negotiations between President Putin and new Ukrainian President Petro Poroshenko, but also coordinated closely with the Organization for Security and Cooperation in Europe (OSCE), which focused on renewed mediation efforts under the Trilateral Contact Group, composed of Ukraine, Russia, and the OSCE, and tasked with securing the cooperation of the DPR and LPR. On February 6, Merkel and Hollande met privately with Putin for several hours, convincing him to return to the table. The mediation effort officially began the following day, when Russian, Ukrainian, and separatist leaders met for negotiations hosted by the OSCE. France and

Germany threatened new sanctions if a deal wasn't reached, and the OSCE promised to monitor the implementation of an agreement if one was reached. The mediation effort resulted in a second ceasefire agreement between all sides, commonly known as Minsk II, on February 12. The ceasefire was scheduled to take effect on February 15. Fighting mostly ceased after the signing of this agreement, but some clashes continued for a short time afterward in the city of Debaltseve, ending after rebels retook the city on February 18. Russian military advisors coordinated the assault on Debaltseve, and U.S. sources were confident that the shelling and rocket attacks in the area came from the Russian military. Ukraine's retreat from Debaltseve under fire terminated the crisis for both Ukraine and Russia. The continued instability in the region (See Carment, Nikolko, and Belo 2019) attests to the difficulty mediators face in resolving crises involving non-state actors in the context of gray zone conflict.

Impact refers to the aftermath phase of a crisis and its consequences. All crises have consequences for the adversaries and their relationship, as well as for the international system and/or the relevant subsystem. These are elements of the legacy of the crisis. This legacy may be conflict resolution, or it may be restricted to short-term crisis management, which may contain the seeds of a new conflict down the road. In short, the impact of a crisis is measured in terms of structural change after a crisis is over. Generally, the impact of a crisis can be measured in terms of four indicators of system change: change in power distribution, in actors, in rules of the game, and in alliance configuration (Brecher 1993: 318). The ICB data have shown that the more severe the crisis, the greater its impact across these four dimensions. We can illustrate the concept of impact by focusing on a few well-known crises of the Cold War international system.

The outcome of the "Prague Spring" crisis of 1968 was a watershed event insofar as it constituted a challenge to the Soviet Union's hegemony within its own bloc, and had the potential of undermining the image of the USSR as a superpower. Thus, while it resulted in minor power change and modest change in actors and in alliance configuration, its major impact was in change in the rules of the game. Until the Prague Spring, the USSR adhered to the principle of state sovereignty and non-intervention in the internal affairs of other members of the Soviet bloc (although "Hungary 1956" twelve years earlier was something of an outlier). Having perceived a grave value threat in the Prague Spring situation, Brezhnev and his immediate successors took a more forceful approach to enforced unity, and thereby dramatically changed the rules of the game (Brecher 1993: 337-8).

The legacy of the 1993 October-Yom Kippur war was a transformation of the Middle East subsystem, especially regarding rules and alliances and basic change in the balance of influence between the superpowers in that region. These agreements, known as Sinai I (January 1974) ending the 1973 war, and Sinai II (September 1975), mediated by Henry Kissinger, brought the parties into a new diplomatic relationship that has outlasted the test of time. Sadat's unprecedented visit to Jerusalem in 1977 can be viewed as a direct byproduct of the outcome of that war, and changed the rules of the game insofar as the Arab-Israeli conflict was concerned forever. And subsystem alliances, particularly the alliance between Egypt and Syria, were irrevocably undone - it took 13 years before normal relations were restored between Egypt and Syria (Brecher 1993: 344-5).

While the Brecher four-phase model of crisis focuses on interstate military-security crises, it can be applied at the intrastate level as well. As we've noted, an intrastate crisis involves the government as the legitimate authority over a disputed territory and its population and one or

more non-state actors. These latter are often armed ethnopolitical groups that are seeking autonomy or outright succession, or to replace the government. At a certain point, the government's decision-makers perceive that the verbal or physical activities of the group constitute a threat to the regime, that time to respond is finite, and that there is a heightened likelihood of the outbreak or the escalation of hostilities. Crisis termination occurs when the government either prevails over its domestic opponents, those opponents defeat and replace the government, or reach an agreement that involves a political arrangement, as in a power-sharing agreement. Crisis recurrence is quite prevalent at the intrastate level, as crises often terminate without full resolution of the issues that led to the eruption of a crisis in the first place.

Thus, from onset through escalation to de-escalation, termination and impact, the evolving international context in which crises occur has created new challenges. Members of the international community - states, organizations, and individuals - each have a potential role to play in conflict prevention, management, and resolution in this new environment. These roles include conflict prevention through the development of monitoring and early warning systems, peace-making and peace enforcement through mediation and intervention, and finally peace-building in the area of post-conflict reconstruction (Wilkenfeld 2016).

Each of these tasks is more challenging in the current international environment. Monitoring and early warning must not only focus on data collected by and on states and other international institutions, but from groups at the local level that are unlikely to provide the type of information necessary to plug into early warning models of civil conflict and instability such as those compiled by the University of Maryland's Center for International Development and Conflict Management (Hewitt 2012, Backer and Huth 2014), the Political Instability Task Force of the U.S. government (Goldstone et al. 2010), or by the U.S. Agency for International Development (2005). Recently, "outsourcing," or the generation of conflict and crisis information through crowdsourcing, has shown promise in generating data where more conventional data collection methods have been difficult to implement (Meier 2014).

Once a crisis has escalated, conflict management tools can include traditional deterrence, arbitration, mediation, arms embargoes, economic sanctions, compellence/violence, as well as peace-keeping missions. With specific regard to mediation, there is often a need for broader mediation teams capable of addressing an array of different types of actors and interests, particularly as local domestic tensions spill over into the international arena. A potentially important tool may be multidimensional peacekeeping missions, which can include a large civilian peace-building component (Fortna 2004), and can cover a range of civilian functions such as economic reconstruction, institutional reform, and election oversight (Doyle and Sambanis 2000).

Given the increasing prevalence of crises that feature elements of both interstate and intrastate conflict, making sure that the concerns of domestic and non-state actors are addressed is a critical component of both conflict management and conflict resolution. Post-conflict reconstruction can take the form of sustained conflict management processes through enhanced economic and social development. One important element in the post-conflict phase of such complex crises will be support for transitional justice processes. Overall, a sustained commitment on the part of the international community will be critical in making the difference between crisis recurrence and conflict resolution.

4. International Crises – A One Hundred Year Perspective

In this second part of the chapter, we present a detailed description of the international system over the past 100 years from the vantage point of international crises. Data from the International Crisis Behavior (ICB) Project are examined to identify patterns in crises for this period. Six key attributes of the international system and its member-states are examined. **Polarity** and **geography** are fundamental systemic characteristics within which interstate crisis behavior unfolds. **Ethnicity** provides an important context for decision making in crises. The extent to which crises occur within a **protracted conflict setting** provides the context for the international community to judge the danger that a crisis poses for the system as a whole or to one of its subsystems. And all contribute to the extent to which **third parties** – whether international, regional, or major powers – will attempt to intervene and whether such intervention will prove successful in crisis abatement. Finally, we assess the **outcomes** of crises as a way of understanding whether or not underlying conflicts are likely to result in crisis recurrence in the future.

4.1 Polarity

One of the enduring questions in international politics concerns the link between system structure and international conflict. The basic question that has engaged scholars has concerned which polar structure is likely to exhibit greater stability. The question before us here is a little different, in that along with attempting to discern the impact of polarity on stability, we are also fundamentally interested in the impact of a gray zone conflict environment. Our interest in general is delineating the factors that contribute to the escalation of crises from non-violent to violent conflict, and how the existence of gray zone factors such as non-state actors in general and proxies in particular might impact the likelihood of such escalation.

As we see from Table 4.2, the ICB project has identified five distinct international systems according to centers of power and decision. Here power center is understood to comprise human and material resources, while the concept of decisional center is characterized by autonomy of choice over a wide range of external issues – political, economic, cultural.

Multipolarity (1918-1939) signifies diffusion of military power and political decision among relatively equal units – France, Germany, Great Britain, Italy, Japan, the Soviet Union, and the United States. **Bipolarity** (1945-1962) indicates a concentration of military power and political decision in two relatively equal actors, the U.S. and the USSR. The two polar powers are preeminent in determining the conditions of stability, the limits of independent behavior by bloc members or unaffiliated actors, and the outcomes of major wars in the system. **Polycentrism I** (1963-1989) identifies a hybrid structure, with two preeminent centers of military power and multiple centers of political decision. **Unipolarity** (1990-2009) identifies the United States as the preeminent military power, with Russia and China challenging this preeminence in a number of spheres of international influence. Finally, **Polycentrism II** (2010-present) connotes a return to a system of two leading states and more than two centers of power, and significant disorder in the system highlighting the inability of the great powers to exhibit a united front when confronting threats to global stability.

Overall, the 26-year Polycentrism I system accounts for 43% of all crises in the 100-year period covered by this study – an average of 7 crises per year. This was a particularly

turbulent time for the international system highlighting the peak period of Cold War era crises and those crises arising from independence movements, particularly in Africa . The other four systems each averaged about 3 crises per year.

Table 4.2: Number of Crises by International System

International System	Number of Crises
Multipolarity (1918-1939)	69 (16.35%)
Bipolarity (1945-1962)	83 (19.67%)
Polycentrism I (1963-1989)	180 (42.65%)
Unipolarity (1990-2009)	69 (16.35%)
Polycentrism II (2010-)	21 (4.98%)
TOTAL	422** (100.00%)

** Ten non-intrawar crises during the period 1939-1945 are excluded from this table.

Figure 4.2: International Crises Over Time.
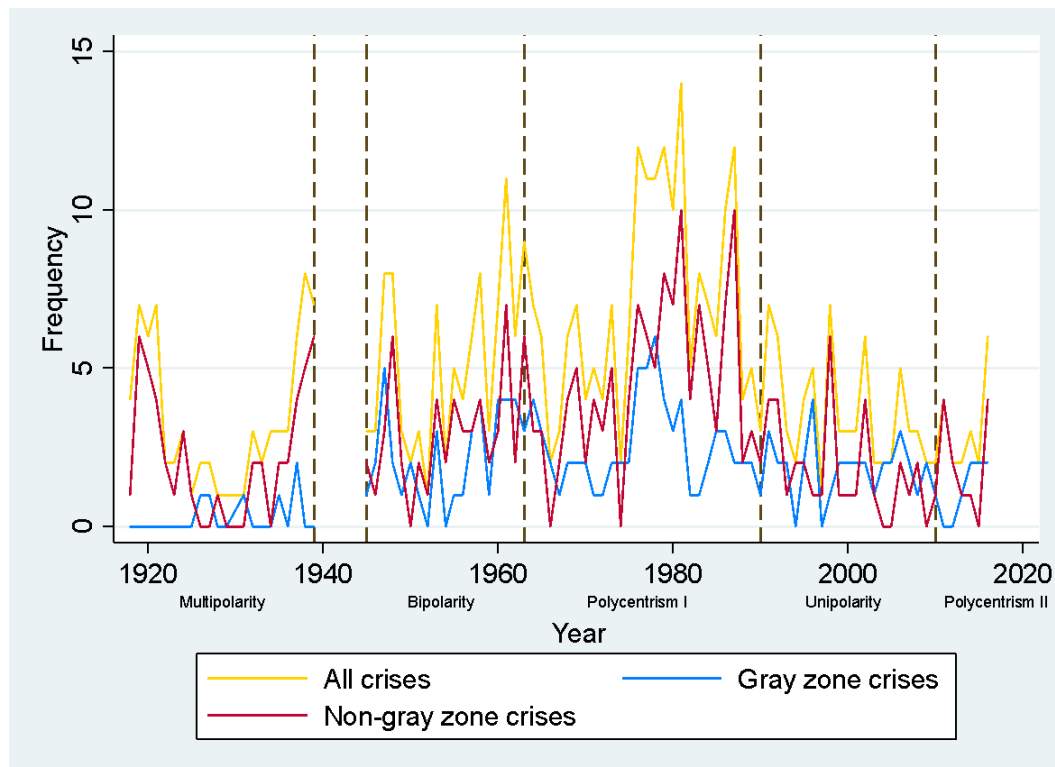
NOTE 1: Ten non-intrawar crises during the period 1939-1945 are excluded from this figure.

As we observe from Figure 4.2, the first polycentric period saw the largest number of crises overall, with 46% of all crises during the past century (minus the WWII period) occurring during that period. During that period, the occurrence of all types of crises peaked, with an average of 7.2 crises per year overall, and an average of 2.6 gray zone and 4.6 non-gray zone crises per year. The Cold War era as a whole was the most crisis-prone, with almost twice as many crises per year occurring during that period compared to the post-Cold War era. The multipolar period was the least crisis prone, with an average of 2.4 crises per year overall, and an average of 0.3 gray zone and 2.1 non-gray zone crises per year.

Regarding gray zone vs. non-gray zone, in any given international system configuration, gray zone crises have never outpaced non-gray zone crises. They came the closest to doing so during the unipolar and bipolar periods, where gray zone crises comprised 49% and 43% of all crises during those periods, respectively. Gray zone crises were proportionally least common during the earlier multipolar period, where they comprised only 11% of crises during that period.
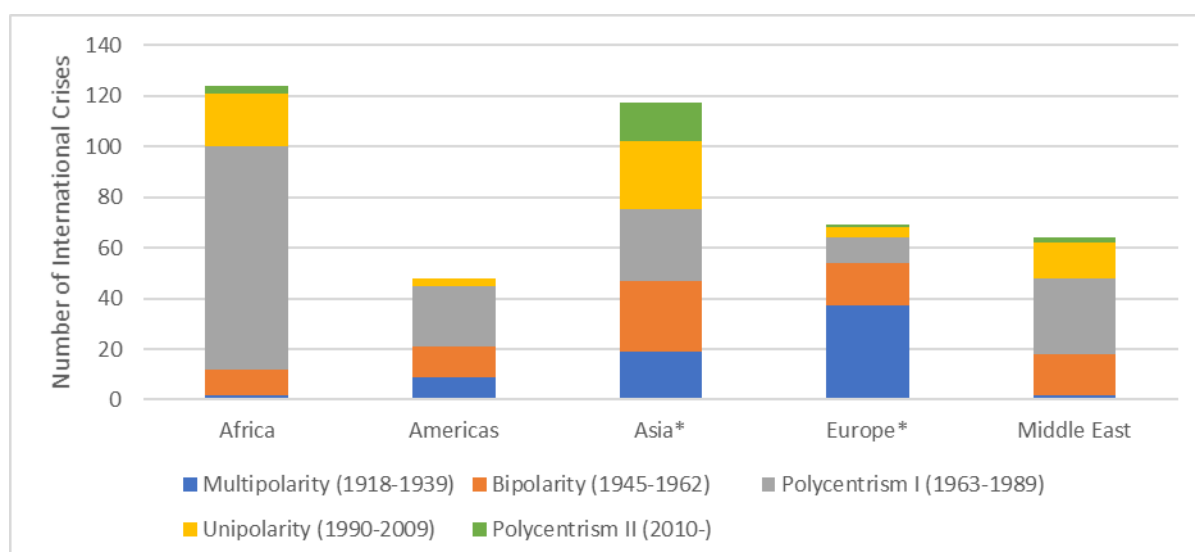
4.2 Geography

Which geographic regions are most conflict and crisis prone? And is adversarial proximity associated with whether or not the crisis is likely to be triggered by a violent act?

Recent theoretical frameworks utilized in empirical studies of geography and conflict adopt one of three major approaches: geography as a facilitating cause, as an underlying cause, or as a direct cause of conflict. In our discussion below, we will not take a stand on which approach is the correct one, but rather will simply present some empirical data on the interaction between geographic factors and the incidence and intensity of crisis. Survey results reported in Chapter 7 show significant differences among regions, in terms of how escalation management plays out.

Figure 4.3 presents the distribution of crises for each of five regions – Africa, Americas, Asia, Europe, and the Middle East – according to the five polarity systems we have identified above – multipolarity, bipolarity, polycentrism I, unipolarity, and polycentrism II.

Figure 4.3: Number of Crises by Region and International System, 1918-2017.

* The ICB geographic region of "Euro-Asia" comprises Russia, and these cases were classified as Europe in this figure.
NOTE: Ten non-intrawar crises during the period 1939-1945 are excluded from this figure.

As we observe in Figure 4.3, the regions vary widely in terms of the system periods in which the greatest concentrations of crises occurred. Most European crises occurred during the inter-war Multipolar era, whereas for the Middle East, the Polycentrism I system produced the greatest amount of crisis instability. For Africa, with most countries achieving independence in the Polycentrism I era, our data show that that era displays the highest frequency of crisis – 71% of all African crises occurred in that period. For Latin America, virtually all of their crises occurred prior to 1989, with the greatest concentration in Polycentrism I. Asia is unique in that its crises are relatively evenly distributed across all five system periods. Looking across systems, it is Asia that has the preponderance of Polycentrism II crises to date.

A second way in which geographic factors impact crises is in terms of adversarial proximity and the propensity for crises to be triggered by violence. Here we look at the way crises were triggered – non-violent, internal challenge, non-violent military, and violence – and proximity in terms of whether the actors are contiguous, near neighbors, and distant. Table 4.3 presents these distributions.

Table 4.3: Adversarial Proximity and Crisis Trigger

|	Non-violent	Internal challenge	Non-violent military	External violence	TOTAL
Contiguous	97 (31.09%)	18 (5.77%)	49 (15.71%)	148 (47.44%)	312 (100.00%)
Near neighbors	13 (27.66%)	9 (19.15%)	8 (17.02%)	17 (36.17%)	47 (100.00%)
Distant	32 (43.84%)	6 (8.22%)	12 (16.44%)	23 (31.51%)	73 (100.00%)
TOTAL	142 (32.87%)	33 (7.64%)	69 (15.97%)	188 (43.52%)	432 (100.00%)

$X^2 = 17.130$, $p = 0.01$

As expected, overall 44% of international crises are triggered by violence, and the vast majority (72%) of crises occur between contiguous states. Violence accounts for almost 50% of the triggers among contiguous crisis actors, but only about 30% of crises in which the adversaries are distant from each other. Many contiguous crises have their origins in historically disputed borders, ethnic groups that populate the territories of both adversaries, and access to natural resources. More distant adversarial crises often involve great or regional power contention for dominance, and such crises are less likely to originate with violent acts.

4.3 Ethnicity

With the end of the Cold War, ethnic factors in conflict and crisis have acquired considerable visibility. The 1990s saw ethnic crises explode in Nagornyy-Karabakh, the former Yugoslavia, Georgia and Abkhazia, Sri Lanka and Rwanda. With the turn of the century, the international system added crises with ethnic dimensions involving India-Pakistan, the DRC,

Kosovo, Ethiopia/Eritrea, Chad-Sudan, Sudan-South Sudan, and Crimea-Donbass, among others. The critical question for us in this overview is whether the attribute of ethnicity affects any or all of the crucial dimensions of crisis, from onset to termination? And are there differences between international crises that are ethnicity driven, ethnicity related, or non-ethnic?

Figure 4.4: Number of Crises by International System and Ethnicity.
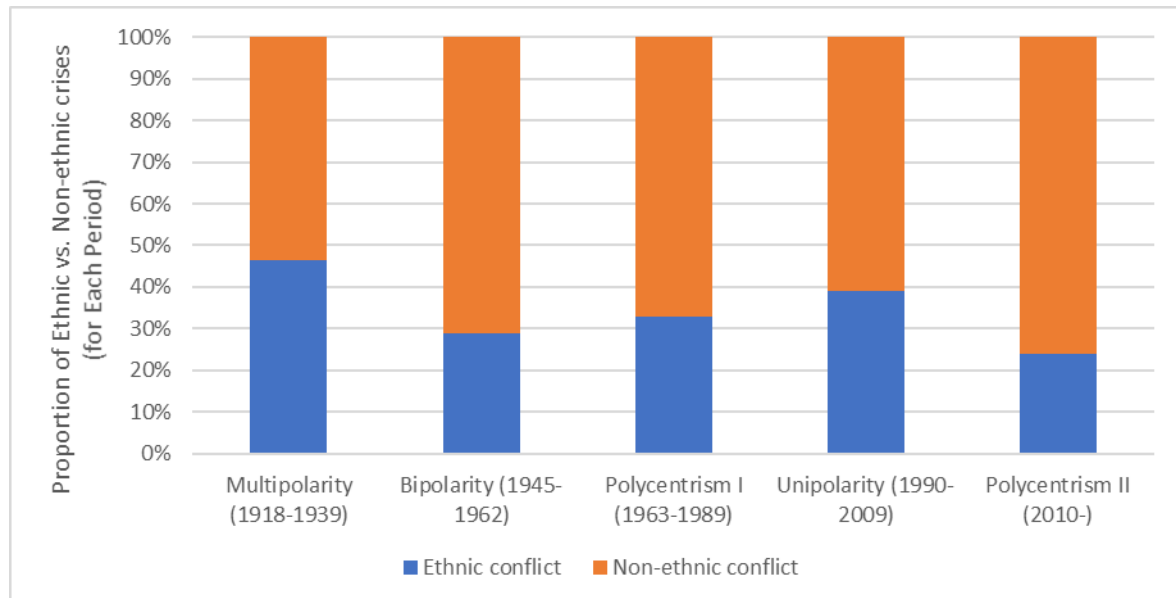

NOTE: Ten non-intrawar crises during the period 1939-1945 are excluded from this figure.

Figure 4.4 juxtaposes polarity and ethnicity. From a peak of 46% of all crises in the multipolar era, we see a gradual decline in the proportion of crises exhibiting ethnic characteristics to an average of 33% for subsequent eras. In the current Polycentrism II period, the proportion of international crises that exhibit ethnic characteristics (24%) is the lowest it has been in the past 100 years.

Figure 4.5 looks at the geographic distribution of crises by region and ethnicity. We note the stark difference between Africa cases (45% are ethnic) and the rest of the geographic regions – an average of 27% of crises are ethnic in all other regions, with ethnic crises comprising the lowest proportion of cases in the Americas at only 12%.

Figure 4.5: Number of Crises by Region and Ethnicity.
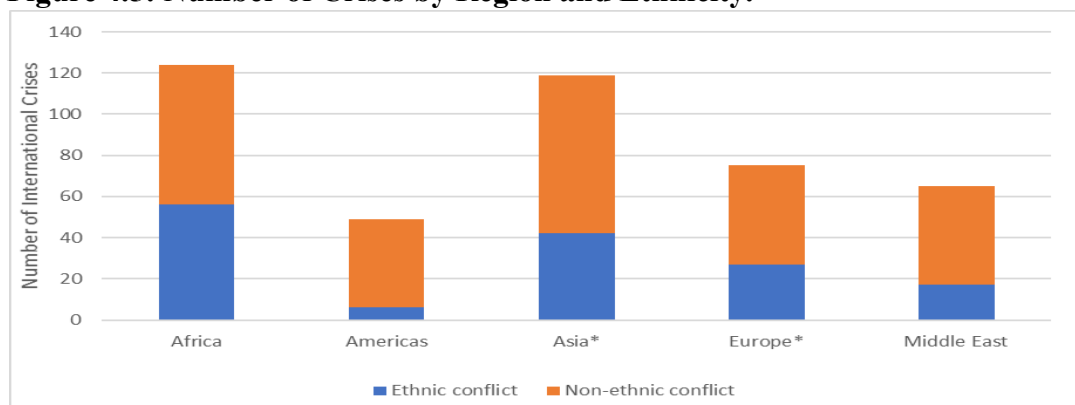
* The ICB geographic region of "Euro-Asia" comprises Russia, and these cases were classified as Europe in this table.

4.4 Protracted Conflict

International crises in the twentieth and twenty-first centuries can be classified according to those that unfold in the context of a protracted conflict, versus those that occur as more isolated eruptions. Virtually every key dimension of crisis is affected by its conflict setting: from the types of events likely to trigger a crisis, the timing and extent of violence utilized by the actors, the extent and effectiveness of crisis management by crisis actors and third parties, and the substance and form of crisis outcomes. Overall, 58% of all international crises cluster into 35 protracted conflicts. Some protracted conflicts are composed of recurrent crises over virtually the same issue, for example Chad-Libya and Western Sahara. Others exhibit crises over diverse issues, as in India-Pakistan and Arab-Israel. Virtually all European protracted conflicts have ended, while all in the Middle East continue unabated. See Table 4.1 above for a listing of currently active protracted conflicts.

Our data show that crises within protracted conflicts are more likely than not to be triggered by violence and to involve violent crisis management techniques (see Tables 4.4 and 4.5 below). Since these protracted conflicts are most likely to be instances in which unresolved issues fester until another related crisis occurs, violence is likely to be the medium that triggers the next round.

Table 4.4: Conflict Setting and Crisis Trigger

	Non-violent trigger	Violent trigger	TOTAL
Non-protracted conflict	120 (60.00%)	80 (40.00%)	200 (100.00%)
Protracted conflict	134 (47.69%)	147 (53.31%)	281 (100.00%)
TOTAL	254 (52.81%)	227 (47.19%)	481 (100.00%)

$x^2 = 7.108, p = 0.01$

Table 4.5: Conflict Setting and Crisis Management Technique

|	Non-violent crisis management technique	Violent crisis management technique	TOTAL
Non-protracted conflict	92 (46.00%)	108 (54.00%)	200 (100.00%)
Protracted conflict	101 (35.94%)	180 (64.06%)	281 (100.00%)
TOTAL	193 (40.12%)	288 (59.88%)	481 (100.00%)

$x^2 = 4.919, p = 0.03$

Major powers and global organizations are more likely to get involved in protracted conflicts than in non-protracted conflicts, although their interventions are no more likely to be effective in terms of crisis management than is the case with non-protracted conflicts. Finally, as might be expected, protracted conflicts are far more likely to terminate with ambiguous rather than definitive outcomes.

4.5 Third-Party Intervention

Third-party intervention in search of pacific settlement of international disputes has been an enduring feature of the international system since the end of WWI. This was enshrined in the Covenant of the League of Nations and later in the United Nations Charter. Regional organizations such as the Organization of American States and the African Union (formerly the OAU), together with regional security organizations like NATO and the Warsaw Pact, have also played significant roles as third parties in regional conflicts. Finally, single or groups of states and sometimes even individuals have been deeply involved in attempts to resolve conflicts and crises. In general, we can think of these as actions taken by an actor that is not a direct party to the crisis, and that is designed to reduce or remove one or more of the problems of the relationship between two parties and to facilitate the termination of the crisis (Young 1967). Among the questions that would be useful to answer are the circumstances under which intervention is likely to occur, what form it will take, and the conditions under which it is most likely to be effective in crisis management and conflict resolution.

The data show a disappointing uniformity on the question of effectiveness of the League of Nations and United Nations. For example, the League was involved in only 29% of crises during its years of existence, and it was effective in 9 or 33% of these 27 crises. The UN, while becoming involved in a much higher 61% of all crises in the post-WWII era, was effective in only 45 or 20% of its 227 interventions. Across the entire period under study here, it has been the Council (League) or the Security Council (UN) that have been the organs most involved in international crises in which the League or UN intervened, fully 67%.

Figure 4.6: UN and RGO Involvement in International Crises, 1990-2016.
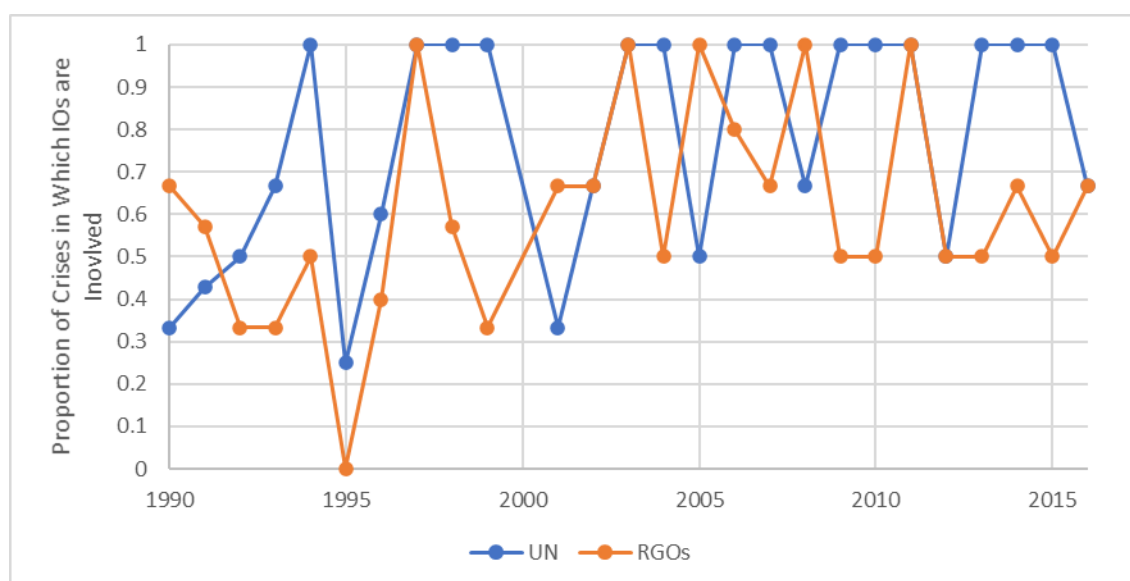
While global and regional organizations were involved in crises throughout the 100-year period, we'll focus here on only the period since the end of the Cold War, as displayed in Figure 4.6. The UN has been involved in 73% of crises since 1990, with that involvement increasing over time to a rate of 87% over the past 15 years. UN involvement encompasses general activity, Secretary General, General Assembly, and Security Council. Fluctuations of RGO involvement since 1990 has largely mirrored that of the UN over the same time period, albeit at a somewhat lower overall rate: RGOs have been involved in 59% of crises since 1990, with that rate increasing to 73% over the past 15 years.

In the 53 crises in which RGOs have been involved since 1990, the OAU has most often been the most involved organization, followed by the League of Arab States and NATO. In 15% of crises since 1990, multiple RGOs have been equally involved. Interestingly, while the OAU has been the most involved RGO in international crises since 1990, it has not been the most involved RGO in a crisis since 2011. ASEAN involvement in international crises has increased in recent years: it has been the most involved RGO in three crises since 2008 after not once being the most involved RGO in the prior seventeen years. The involvement of most other RGOs has been distributed relatively evenly across time in the post-Cold War era.

Figure 4.7: UN and RGO Effectiveness Rates in International Crises, 1990-2016.
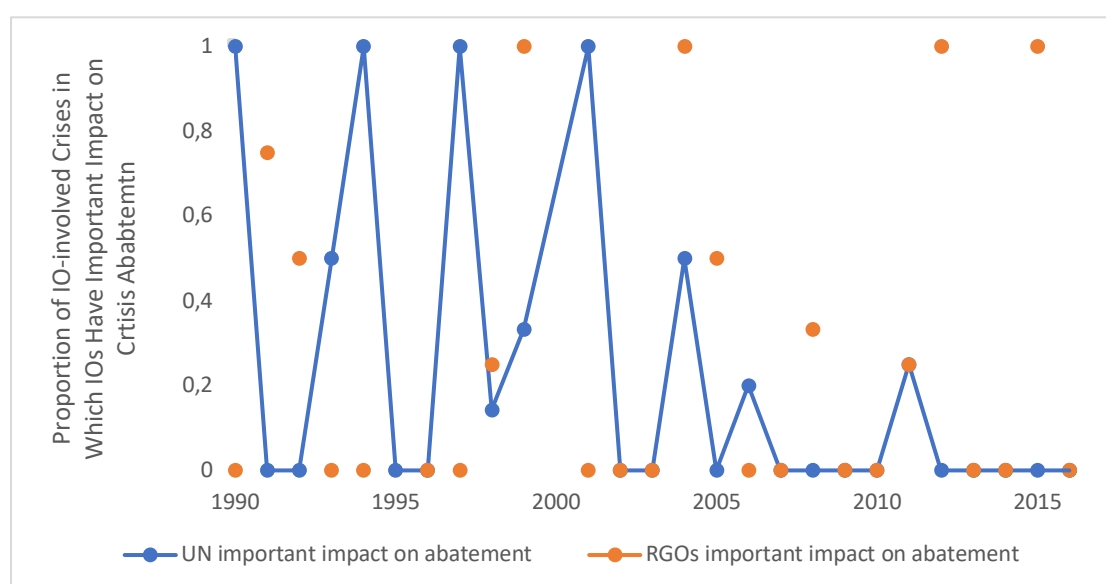

Figure 4.7 indicates how the effectiveness rates of UN and RGO involvement have changed over time since 1990. Both UN and RGO effectiveness have been pretty poor overall: the UN has only been an important contributor to crisis abatement in 17% of crises in which it was involved since 1990, and the comparative effectiveness rate for RGOs is 23% for that same period.[29] The effectiveness of RGOs has stayed relatively steady over time. In comparison, the UN has gone from bad to worse: it has only been an important contributor to crisis abatement in three crises since 2003, or 9% of the crises in which it has been involved during that time period. The three crises in which the UN was effective since 2003 are: the 2004 flare-up between the Democratic Republic of Congo and Rwanda after renegade Congolese Rally for Democracy (RCD) rebels captured the town of Bukavu; the second Israel-Lebanon

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[29] Both the UN and RGOs have a slightly greater impact on the *pace* of abatement, with the UN and RGOs contributing to more rapid termination in 30% and 34% of the crises in which they are involved, respectively.

war in 2006; and the second of two recent crises—this one occurring in 2011—between Cambodia and Thailand surrounding a disputed area in which the Preah Vihear temple is located. The UN's effectiveness in these three cases has also been long-lasting—there have been no further crises between the protagonists in these cases—and therefore potentially illustrative of how the UN can be successful.

4.6 Outcomes

Our final vantage point will be from the perspective of crisis outcomes, for both the parties directly involved in crises and for the regional and international systems in which they occurred. Several key indicators help us understand the record of the international community and its various crisis management institutions and organs, as well as individual crisis actors themselves, in managing crises in such a way as to make recurrence less likely.

Figure 4.8 below reports on the way the participants viewed the outcome of a crisis. An ambiguous outcome is one in which at least one actor perceived a stalemate, with no clear effect on its basic goals, or a compromise with partial achievement of goals. A definitive outcome is more clearcut: either all actors perceive victory, i.e., a positive sum outcome, or all actors perceive defeat in terms of achievement of their initial goals. The proportion of outcomes that are ambiguous has increased steadily over time, i.e., outcomes in which at least one of the parties exits the crisis with its initial goals either unsatisfied or only partially satisfied. Definitive outcomes are correspondingly rare.

What this means for the international system is clear. If we think in terms of crisis management versus conflict resolution, then a slide toward increasingly ambiguous crisis outcomes means that at best crises have been managed but in a way that has left many of the parties with unachieved goals. This is the case with about 80% of crises in the post-Cold war era, whereas earlier crises showed definitive outcomes in almost 50% of the cases. Clear cut outcomes, with all parties knowing definitively that they "won" or "lost" signals a more stable crisis outcome with lower likelihood of crisis recurrence.

Figure 4.8: Substance of Outcome by International System.
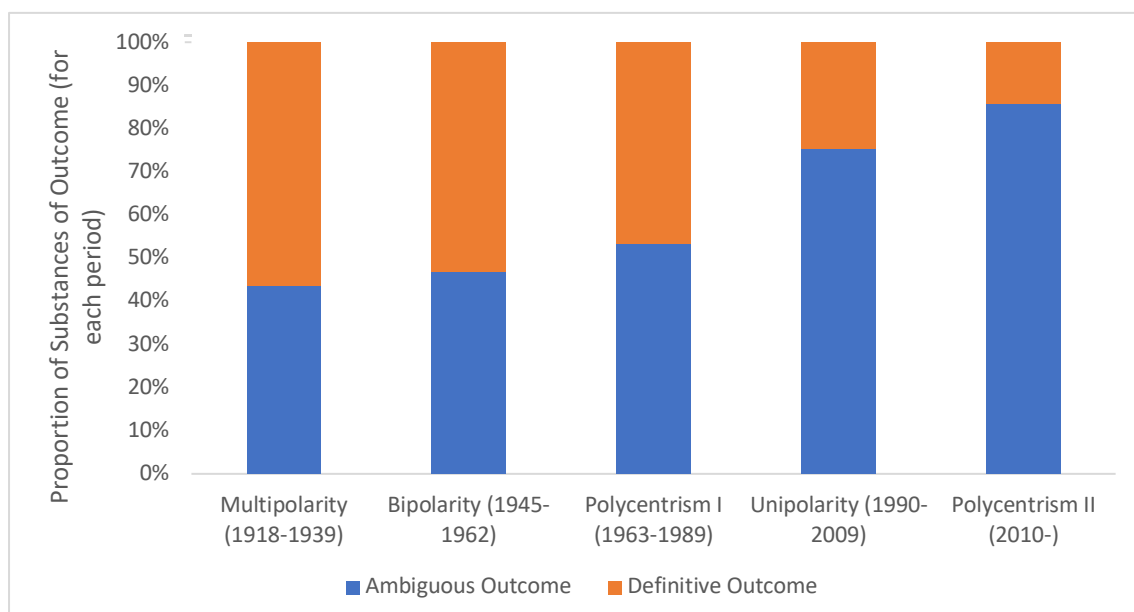
Figure 4.9 addresses the form of outcome. Agreements include formal (peace treaty, cease fire), semi-formal (letter, oral declaration), and tacit understanding (mutual understanding neither stated nor written). All other forms of outcomes are considered non-agreement, including imposed agreements, unilateral acts, or when a crisis simply fades. The proportions of crises that end in agreements (formal or semi-formal) and tacit understandings have stayed relatively steady over time. Unilateral acts and imposed agreements have become less common over time. No imposed agreements have occurred in the current period (Polycentrism II). Agreements overtook unilateral acts as the most common form of outcome beginning in the Unipolar, post-Cold War period. Interestingly, the proportion of crises that have simply faded continues to increase steadily over time. As can be imagined, a faded crisis with no clear termination agreement in place is fertile ground for conflict recurrence.

Figure 4.9: Form of Outcome by International System.
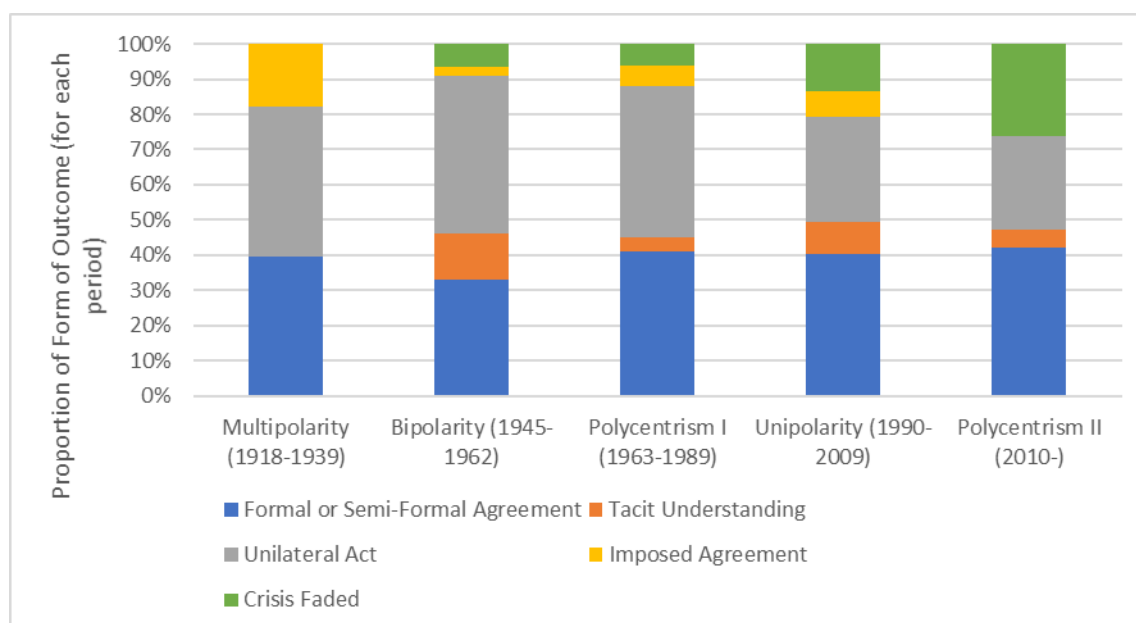
NOTE: Ten non-intrawar crises during the period 1939-1945, and thirty-four crises in which the form of outcome was coded as "other" are excluded from this figure.

Figure 4.10 assesses the extent to which the parties are satisfied with the outcome of the crisis. This ranges from all satisfied, most actors satisfied, equally mixed, most dissatisfied, and all dissatisfied. The proportion of crises that end with all or most actors satisfied depends on the international system that we are talking about. This balance of satisfaction marked a majority of crises in the multipolar, first polycentric, and unipolar periods. In contrast, an equal mix of satisfaction and dissatisfaction with the crisis outcome was the most common satisfaction balance in the bipolar and the current, second polycentric period. The proportion of crises that end with all or most actors being dissatisfied has stayed relatively small over time, but this outcome has also shown a slight increase over time.

Figure 4.10: Extent of Satisfaction with Outcome by International System.
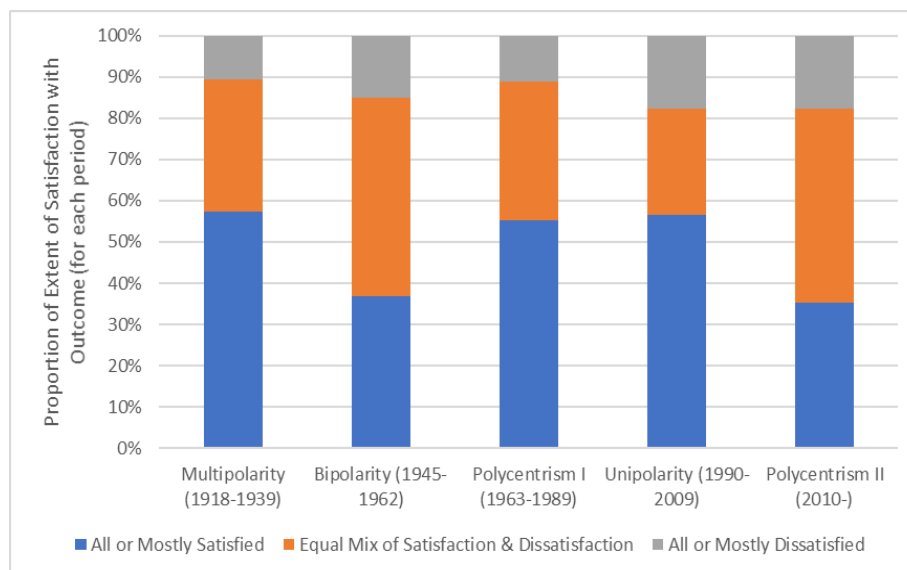
NOTE: Ten non-intrawar crises during the period 1939-1945, one hundred twenty-eight single-actor crises, and fifteen crises in which no adversarial actor experienced a foreign policy crisis are excluded from this figure.

Figure 4.11 assesses the effect of the crisis outcome on the tension level among the adversaries. This is assessed based on whether or not the same set of actors was involved in a crisis during the subsequent five-year period. Crisis recurrence (i.e., tension escalation) has been slightly more common than not during the post-Cold War period, a flip of the pre-1990 period and following a dip in proportionality of this post-crisis outcome during the Cold War.

Figure 4.11: Post-Crisis Tension Status by International System.
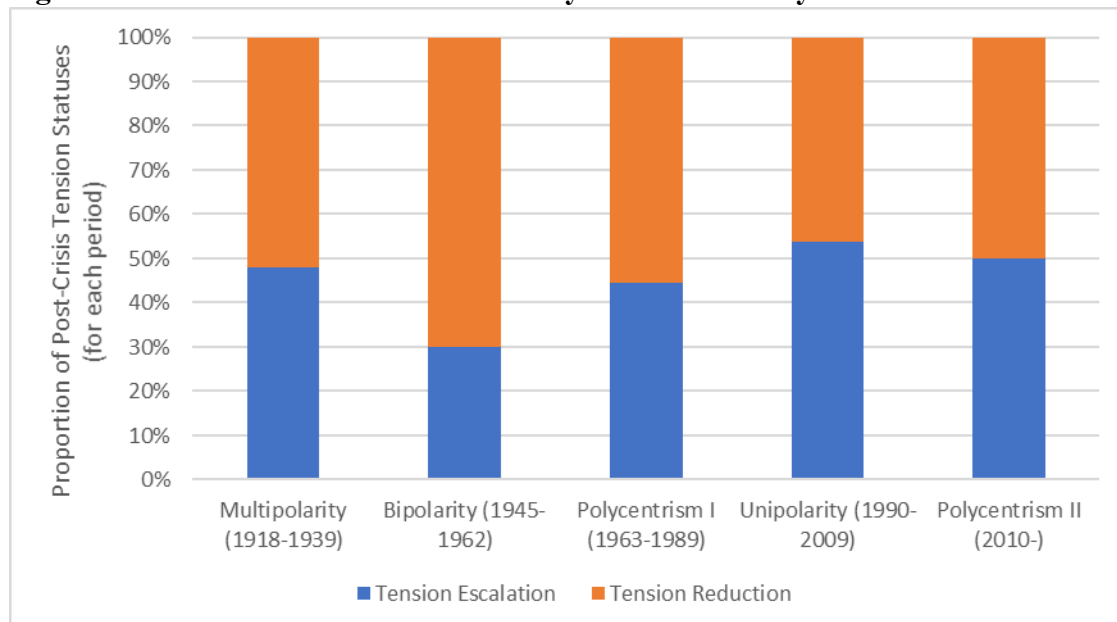
NOTE: Ten non-intrawar crises during the period 1939-1945 and five recent crises in which five years have not yet passed since the time of termination are excluded from this figure.

In sum, there is an increasing tendency toward nebulousness, stasis, and non-resolution of issues in international crises: a steady increase in ambiguous outcomes over time, an increase in the proportion of crises that have simply faded and ended with most actors dissatisfied during the post-Cold War period, and tension escalation hovers at around 50% as the most common post-crisis outcome in the post-Cold War period.

With this overview of crises in the past 100 years from the vantage point of the International Crisis Behavior datasets, we turn now to two chapters that look more specifically at the way these crises have unfolded, with particular emphasis on the impact of gray zone factors. We do so first from the vantage point of how gray zone factors interact with regime type, power discrepancy, and state capacity (Chapter 5), and by analyzing the role of proxies in gray zone crises (Chapter 6).

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Chapter 5: Regime, Power, State Capacity, and the Use of Violence in Gray Zone International Crises

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Introduction

International conflict today is increasingly defined by a series of relatively low-level crises. This type of conflict – variously termed gray zone, hybrid war, or competition-short-of-war – unfolds deliberately below the normative threshold of conventional military-versus-military violence and occupies a muddled space between war and peace. While the boundaries of this confrontational space are kept deliberately vague, its increasing prevalence calls for a better understanding of which insights from classic conflict dynamics can be applied here and what modifications are needed.

The quantitative analysis reported here is a product of a three-year multi-method study aimed at a more systemic understanding of the range of available gray tools and effective responses to them. Using International Crisis Behavior (ICB) data, we look at a range of crises for the period 1963-2015, asking what prompts states to choose gray/hybrid versus direct violent tools in a crisis, as well as why defender states may choose to escalate in response to challenges. Drawing on extensive conflict research literature, we start by considering type of regime and power disparity between the conflicting parties, and also look at state capacity as an index that includes more complex measures of economic and institutional development.

We do not seek to explain what makes the actions of certain states likely to provoke a crisis, or whether gray tools are more or less prone to cause crises – instead, we look at the early stages of a crisis that is already unfolding, and examine the patterns of violent, non-violent, and gray tools in use. We draw on relevant insights from the Democratic Peace (DP), Diversionary Use of Force (DUF), Asymmetric War (AW), and Power Transition Theory (PTT) to understand what drives a state's choices of tools. In addition, we examine the defender's choice in these early stages of a crisis as to whether to match the challenger, escalate, or de-escalate the situation.

In terms of regime type, we find that anocratic states (i.e., disintegrating democracies or softening authoritarian regimes – as defined below in Section 1.1) are the most prone to use violence in crises – both as challengers and as defenders. Highly autocratic and highly democratic states show no meaningful differences in terms of their propensity to use violence – whether to challenge their opponent or defend their interests. In terms of power dynamic, challengers targeting a near-peer adversary demonstrate a preference for using gray tools over other non-violent non-gray tactics; however, power disparity does not have a statistically significant impact on the decision to use violence. Overall, it appears that the indexed measure of state capacity is the critical factor in determining a state's propensity to use force in a crisis – for both challengers and defenders. In combination, these insights suggest that the choice of gray vs. violent tools is driven by normative, rather than resource constraints.

The study is organized as follows: section one reviews the literature on the key academic debates about the impact of regime, state capacity, and power disparity between parties at

war, and the inferences we can draw on their behavior in a *crisis*; section two presents our methodological choices and defines the key concepts that form the basis of this study; section three lays out our hypotheses, research design, and results; and section four discusses the broader implications of the findings.

1. Previous Research on the Use of Force

The focus of this study is the choice of tools that adversaries make as their interactions become increasingly conflictual. At some point, one of the adversaries (the defender) will judge a certain action on the part of its adversary (the challenger) to have crossed the line from the bounds of regular competition to crisis. That is, this action will exhibit for the defender the three crisis characteristics of threat, finite time for response, and an increasing probability of military hostilities. This act will be defined as the trigger to the international crisis.

As we are looking in particular at crisis behavior short of war, i.e. gray zone crises, theories that explain why states choose to start a war – a more extreme version of a crisis – can help us understand some of the logic driving their decisions. Furthermore, the hypotheses we test, based on this literature, rest on the assumption that in a crisis, greater propensity to use violence implies lesser propensity to use gray tools, and vice versa. It is important to recognize these assumptions and treat the insights with due caution.

Traditionally, in seeking to explain why states turn to violence, (1) regime type (level of democratization) and (2) power disparity between the adversaries have been the most frequently considered state attributes – and we take these as a starting point in this study. Moreover, a common critique to democratization as an explanatory variable has been its high correlation with economic development. As will be discussed below, numerous scholars have found democratization and economic growth to closely impact and boost each other in a circularly causal manner, making the individual variable effects difficult to isolate. Thus, to better account for the reasons behind state crisis behavior, we also consider a composite index measuring (3) state capacity (including the level of regime consolidation and institutional capabilities, among other factors). Since the academic debate as to the directional impact of these three variables is not settled, we briefly present the relevant literature summing up the propositions on both sides of the discussion.

1.1 Democracies: Use and Non-use of Violence

In terms of defining regime type, we use the Polity Scale, where -10 indicates the most authoritarian states (such as North Korea or Saudi Arabia), and +10 – the most democratic (such as Canada or Germany). In the middle of this rage is a regime type known as anocracy, which ranges between -4 and +4 on the Polity Scale (such as Turkey or Egypt). Regan and Bell (2010: 748) define anocratic regimes as having "the institutional capacity for some broader participation in the governing process… some institutional ability to facilitate candidate recruitment beyond the selection by a small cadre of anointed leaders, and… exhibit some political behaviors consistent with a budding civil society."

Considering the impact of regime type, the central proposition of the classic Democratic Peace (DP) theory is that **democracies do not go to war with other democracies**. Among the most common explanations, a combination of the following factors is offered: (a)

economic interconnectedness – trade interests and the associated lobbies trump or at least constrain political conflict (Mansfield, 1994; Oneal and Russett, 1997); (b) shared embedded norms against the use of force (and also arguably the increased normative value of individual life (Inglehart, Puranen, and Welzel, 2015; Halman, 2009). Two additional factors are frequently cited as variations or subsets of the norms' argument: (b.1) public disapproval (Tomz, 2007; Thomson, 2016; Levendusky and Horowitz, 2012), and (b.2) institutional constraints (Bueno de Mesquita and Lalman, 1992). In addition, Hardie, Johnson, and Tierney (2011) argue that psychological decision-making biases (e.g., a narrowing field of vision under stress, assuming the worst about the opponent, and leaning towards aggression over uncertainty) are less likely to be reflected in the strategic choices of democratic leaders - because they face significant audience or institutional constraints.[30] Proponents of DP suggest that democracies that do find themselves at war with other democracies are not really democratic enough (e.g., Russett and Oneal, 2001), and make no explicit predictions about crisis behavior. Nevertheless, Brecher and Wilkenfeld (1997, p. 813) link the DP theory to international crises (as opposed to wars) in the following way: "when actors adopt violent crisis management techniques, the severity of the crisis violence is dampened as the prevalence of democracies increases." Overall, given the normative nature of the argument, we could expect democracies to avoid using violence under the threshold of war as well (see also Maoz and Russett, 1993, and Gartzke and Hewitt, 2010) – and, by extension, would be more prone to resort to gray tools.

Fukuyama (2014) offers a detailed study of the growing pains of democracies-in-the-making: many such countries have the formal institutional structures and laws present, but until the social content to fulfill and monitor these mandates can mature, there is considerable reliance on informal alliances forged through corrupt distribution of resources. Hegre (2014) and Kleinfeld (2017) further argue that anocracies are relatively low-trust societies, with new institutions often disadvantaging a particular ethnic, religious, or economic group which then, having no faith that the current institutional set up will give them a turn at the trough with the next electoral cycle, turn to violence – internal or external. Similarly, Mansfield and Snyder (2005/6) and Tarzi (2007) find that countries transitioning towards a democracy are more prone to use violence – both domestically and internationally. Thus, implications derived from DP would suggest that **anocracies are prone to use violence**. This would arguably extend to crises, not just wars, given their frequency and the volatile nature of anocratic states.

On the other hand, Mearsheimer (2018) suggests that the U.S. and other established Western democracies have used the DP to justify waging wars or conducting regime change operations against non-/insufficiently democratic regimes, under the premise that once they are made truly democratic, global peace will ensue. This is also consistent with another realist notion that *strong* states, having ensured their security, proceed to expand their perceived area of interest, seeking to fulfill milieu goals, such as spreading peace through democracy (Wolfers, 1962). Geis and Muller (2013) offer an excellent overview of the recent academic interest in liberal interventionism (including Freedman, 2005; Vasquez, 2005; Chandler, 2010). Historically, the self-perceived normative superiority of Western democracies is precisely what has driven them into wars they perceived as just, in order to spread democracy – from the crusades to the white man's burden. Thus, a competing and more nuanced proposition can be derived from DP: ***mature* democracies are prone to wage**

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[30] As we are not able to engage with the decision-making processes and personalities of state leaders in this study, we find it important to at least note the logical link of those aspects to the factors we explore in this study.

war against non-democracies. Since many of the measures employed to spread democracy in this way include both violent and non-violent covert activities, the implications for the use of violent vs. gray tools in crises below the threshold of war remain ambiguous.

Moreover, a subset of the theory of Diversionary Use of Force (DUF) suggests that **mature democracies, especially majoritarian ones, are more prone to initiate wars** (e.g., Kisangani and Pickering, 2009; Gelpi, 1997; Oneal and Tir, 2006). The argument goes that authoritarian rulers have plenty of direct levers to quickly sway domestic opinion – from rewarding supporters to repressing dissent, and need not seek out military adventures. In contrast, in mature democracies, institutional and normative constraints leave few levers for leaders that are losing support: regular economic policies often do not manifest their effects within regular electoral cycles, while external military victories tend to significantly improve the chances of staying in office. By extension, DUF also implies **mature democracies would be more likely to seek assured wins, going into a war with overwhelming force or waging the chosen war against a weaker adversary**, as a way of diverting public attention from domestic troubles. Given the central DUF focus on winning domestic approval, the implications for behavior in crises below the threshold of war would be similar – mature democracies would be prone to either use violence (rather than gray tools), and/or target weaker adversaries to secure victory.

Finally, it is also worth recalling the Rallying Around the Flag (RAF) effect – the tendency of public support to consolidate around a leader in times of crisis, particularly if the country perceives itself as winning it. In addition, recent studies (e.g., Reiter and Stam, 2002; Geis and Muller, 2013) indicate that democratic publics generally do support the use of force, even in the absence of imminent danger – challenging the normative presupposition described above.

1.2 State Capacity

In considering the factors internal to the state that are likely to affect its crisis behavior, it is important to recognize their potential interrelatedness. While regime type is one of the main factors we consider, it is worth unpacking that further. Namely, there has been a decades-long academic debate (see, e.g., Heo and Tan, 2001) as to whether factors that lead to economic growth serve as enablers of democratization (Lipset, 1959; Needler, 1967) – which would imply that economic prosperity, and the factors contributing to it (not the regime type) determine state behavior in crises. Nevertheless, there is solid literature suggesting the opposite directional effect, with democratization creating the conditions for economic growth (Olson, 1982; Przeworski and Limongi, 1993; Leblang, 1996 and 1997). Without conclusive proof in either direction of this causality, the close correlation between regime type and level of economic development is clear. Thus, to circumvent this confusion and derive more precise explanations for crisis behavior, in this study we consider an index variable of state capacity that contains factors central to the internal capacity of a state to maintain law and order, deliver goods to meet the needs of its population, and effectively administer its territory (among other aspects). Since we are using this as an improved measure of the impact of regime type upon crisis behavior, we would expect the DP and DUF propositions outlined above to hold, particularly ones that refer to the behavior of mature democracies.

1.3 Violence: A Sign of Power or Weakness?

Next, we consider the arguments concerning the impact of the power relations between the conflicting parties upon the tools employed by the parties in a given crisis. The academic strand of conflict studies focusing on Asymmetric War (AW), and particularly that waged by non-state actors, suggests that **weaker challengers attack using gray tools** because it is clear they cannot prevail in the conventional battlefield against superior targets (e.g., Paul, 1994; Paul, Morgan, and Wirtz, 2009). This line of reasoning is built around the combination of resource constraints and the lack of normative constraints in using tools alternative to conventional warfare. We would therefore expect this proposition to also hold for crises below the threshold of war. Furthermore, this logic should apply to challengers that are not objectively weak, but simply feel they lack sufficient power superiority against their chosen targets.

Counter to this is the argument that **gray tools are used by strong states that enjoy considerable deterrent** impact of their latent conventional force capabilities, and can thus expect to win even with minimal effort. It speaks to the implicit threat of the use of greater force perceived by the chosen target, when the strong challenger presses the target into a situation where it perceives itself in a crisis, even through minimally invasive techniques. Following this logic, the weak challengers, lacking latent power, cannot rely on the implied threat to use force and thus have to go all-in if they are to have any chance at prevailing – thus they are expected to resort to violence, rather than gray tools (De Nevers, 2007; Caprioli and Trumbore, 2006). This could also be seen in light of Prospect Theory: Kahneman and Tversky (1979) suggest that parties facing losses are more inclined to take risks, measured as upping the stakes in betting – by extension, **a state least likely to prevail in a war ought to be more prone to use violence**. However, extending this logic to crises below the threshold of war produces further conflicting propositions. On the one hand, in line with the argument outlined above, a state that is relatively weaker than its adversary would seem to have more to lose if a crisis escalated into a war, rather than by allowing the stronger adversary to prevail in a crisis below that threshold, so we could expect to see gray tools employed by the weaker party. On the other hand, if this weaker party perceived its very survival to be threatened by the opening act of such a crisis, this would prompt it to use violence.

1.4 Propensity for Violence in Near-Peer Competition

In recent years, America's unipolar moment in the global world order is increasingly challenged by other great powers, namely China and Russia (in addition to rising regional powers, and violent non-state actors) - which has sparked a renewed interest in near-peer conflict and competition research concerning these great powers (see, e.g., Byoric, 2017; Donovan, 2020). A considerable body of research on great power competition has been generated covering the Cold War, but in terms of conflict behavior among near-peer competitors that are not global or regional powers, the research is sparse. Thus, helpful direct inferences and extrapolations can be made from several classical theories concerning major power behavior.

First, it is worth considering the implications of Power Transition Theory (PTT) (Organski, 1958). PTT argues that the hierarchical order of the international system is subject to regular challenge due to changing power dynamics: the rise of new powers or the decline of dominant ones brings them to near-equilibrium points, and because victory seems feasible to either side, conflicts arise (Tammen and Kugler, 2006; Lemke, 2004). The PTT is most

frequently considered in reference to rising (regional) powers, emphasizing the transitioning balance of power as related to greater war propensity. Nevertheless, the notion that **near-peer situations are generally more conflict prone than those of great power disparity** could, by extension, apply to near-peer country dyads that do not involve global or regional powers.

On the other hand, Stability-Instability Paradox (SIP) theory (Snyder, 1965; Krepon, Jones, and Haider, 2004; Powell, 2015) carries contrary implications for the use of violence among near-peers. SIP was originally coined to explain the prevalence of small-scale crises in the face of nuclear deterrence. With mutually assured destruction established as a prohibitive cost and an unacceptable red line on all sides, international competition for power and resources continued through other means. With competition entering new domains and technologies, it was no longer obvious where a particular challenger action might rank, in terms of gravity of threat perceived by its target. Therefore, great powers, i.e., **near peers, would regularly engage in probing behavior, which regularly erupted in crises** of varying severity, but well below the nuclear war threshold. By extension, such logic could apply to any pair of adversaries that are mutually aware of the prohibitive costs a direct violent confrontation would inflict upon each of them – even when such a prospective exchange involves "merely" conventional, rather than nuclear, violence. Thus, SIP would imply a **lesser probability of the use of violence (and greater propensity to use gray tools) among near-peers in crises**, but might simultaneously mean greater regularity of challenges through other – non-violent, indirect, or gray – means, as well as a greater number of probing incidents that do not end up being seen as crises by their target state.

1.5 The Defender Perspective

The classic framing of a security dilemma, aka offense-defense balance, views defense primarily from the perspective of possessing sufficient deterrent capabilities so as to not need to employ them in an actual defense. There is little thought given to what factors might prompt a defender to choose to not respond, match a challenger, escalate, or de-escalate. Some cursory examination has gone into predicting defender behavior in repeated conflicts: it is usually assumed that because a defender must keep on succeeding, often on multiple fronts, while a challenger must only succeed once to break through, a defender ought to capitulate upon the failure of deterrence (i.e. take no action or de-escalate) – although studies involving laboratory experiments find that actual defenders tend to fight back or even escalate more often than predicted (see, e.g., Deck and Sheremeta, 2012; Clark and Conrad, 2007). Nevertheless, for the purpose of the present study, we assume that the effects of regime type, state capacity, and power dynamic would be of greater significance here than whether a state was in a position of a defender or a challenger. This is due to the increasing ambiguity of these very notions: in a lasting adversarial relation that has not yet crossed the threshold of war, it is difficult to objectively say who threw the first punch. We appreciate the information campaign aspect (i.e., both sides can be prone to publicly play the victim to garner support) and the eye-of-the-beholder aspect of the designated starting point of such crises (i.e., one party may have committed several actions that the other considers provocative and gotten no response - how fair would it now be to call it the defender if the starting point of an internationally recognized crisis is the affronted party responding with violence).

2. Research Design

2.1 Definitions: Gray Zone and Gray Tools[31]

For the purpose of this research effort, we define gray tools as activities taken to satisfy national security objectives (defined broadly) that are considered by the targets of these actions to exceed the bounds of ordinary competition, but do not reach the level of direct military confrontation or large-scale damaging effects. The gray zone then is a conceptual space between war and non-war. It is conditioned by context and largely by the perception of the action's target. That is, we recognize that in taking a particular action in this gray zone, the challenger might not necessarily intend to trigger a crisis – it is the defender who determines whether the boundaries of acceptable competition have been crossed. Core attributes that mark gray zone activities include the use of ambiguous actions that cloud or hide the identity of the actor, use of multiple sources of national power, in multiple arenas, on multiple and variable time-scales, and often involve challenges to international rules and norms (by gradually eroding them or directly countering them) (NSI, 2016). They often involve activities that are contrary to democratic norms, but not clear violations of international norms. In fact, many of these gray zone activities are designed to exploit the need for democratic governments to achieve consensus before acting when their competitors (e.g., non-democracies or non-state actors) can maneuver with great speed.

Overall, gray zone is defined by the following conditions:
A.   The target perceives that regular competition passes over the threshold from acceptable to unacceptable. "Acceptable" implies competition that may not be appreciated but can be abided. "Unacceptable" implies activities that are perceived as threatening to one's security.
B.   An actor employing gray zone tactics has an ultimate national-security focus.
C.   An actor employing gray zone tactics is not using conventional violence itself directly (though it may be doing so via a proxy).
D.   Gray zone tactics are intentionally chosen by the actor to lower the risks or costs (e.g., in resources, international opprobrium, retaliation) that would be incurred if direct action were taken.
E.   Military actions conducted by an actor employing gray zone tactics, even if non-violent, are done covertly.

In our research, we consider competition using any means - economic, military, diplomatic, social, political, etc., with military-against-military state-level interactions constituting a clear upper boundary of gray activity. However, the lower boundary is in the eye of the beholder. We also recognize that what limits a crisis to gray zone will often be the choice of gray tools by the defender, in other words, it will be determined at least in part by how the defender assesses a challenger's actions (gray or not) and whether the response will be seen by the adversary as escalation, tit-for-tat, or de-escalation (see Appendix A).

2.2 Level of Analysis: Foreign Policy Crises Onset

For the purpose of this study, the main focus of our analysis is the opening moves in an individual foreign policy crisis, as recorded by the ICB Database. Brecher et al (2021) have

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[31] For a detailed discussion of the definition of a gray zone, see Stevenson (2019).

collected data on all international military security crises from 1918-2016, focusing on triggers, level of perceived threat, responses, the role of major powers and international organizations, and crisis outcomes. Its detailed crisis summaries have allowed us to go back into previously coded cases and extract more detailed information on aspects of crises that are particularly relevant to gray zone behavior. The current analyses are based on 369 cases for the period 1963-2015, i.e., from the end of what Brecher and Wilkenfeld have designated the post-WWII bipolar period, through the polycentric period of 1963-1990, into the unipolar period to 2010, and into the polycentric II period thereafter (Wilkenfeld and Brecher, 2021). That is, 27 years of the Cold War and 20 years of the post-Cold War international system.

It is important to understand the distinction between a crisis for a particular state, which ICB refers to as a foreign policy crisis, and an international crisis which will have at least two state actors as adversaries, with at least one of those state actors experiencing a crisis. An international crisis may occur in the context of an ongoing protracted conflict involving the same crisis actors, or it may be a stand-alone crisis that does not recur later. A foreign policy crisis may exhibit either gray zone or conventional characteristics.[32]

We analyze the opening moves in a crisis by the challenger and the defender, as they are considered the tone setters, rich in signals, including those about potential red lines. There is also some indication (e.g., Wright, 2017) that the early stages of a crisis are the most volatile and prone to escalation because in many cases, particularly in non-protracted conflicts, the crisis actors do not yet have clear understandings of how their actions will be perceived by the other party and what their respective red lines are.

3. Hypotheses

Based on the competing propositions identified in the literature on the use of violence at war, we test the implications we derive from them for crisis behavior in the following two sets of hypotheses.

For the challenger in a crisis, we propose the following hypotheses:

H1.1: The more democratic the challenger is, the more likely it is to use gray tools in the opening act of a crisis.
H1.2: When the challenger and the defender are near peers in power, the challenger is more likely to use gray tactics.
H1.3: The challenger is more likely to use gray tactics against weak capacity defenders than strong capacity defenders.

For the defender in a crisis, we test the following hypothesis:

H2.1: The less democratic the defender state is, the more likely it is to escalate in a crisis.

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[32] For more information on the way the ICB project conceptualizes crisis, see Brecher and Wilkenfeld (1997).

4. Methods

In order to test the hypotheses outlined above, we collected data on the initial actions of challengers and defenders in all international crises between 1963 and 2015[33]. The ICB dataset identifies the challenger's triggering act, and the major response to that triggering event by the defender. A case enters the ICB actor-level dataset when a state actor perceives a threat to basic values from another state,[34] a finite time for response, and a higher than normal likelihood of military hostilities. An actor perceiving a foreign policy crisis is the unit of observation in the ICB actor-level dataset. We've collected data on a new suite of ICB variables that look closely at the types of tools that were used by crisis challengers and defenders, giving us a more fine-tuned ability to assess whether and under what conditions escalation has occurred.

First, we had to define the set of *defenders* and *challengers* for our analysis. For defenders, we draw from the pool of actors that ICB has defined as perceiving foreign policy crises, which ICB terms "crisis actors." ICB also contains coded information on the act that triggers each actor's foreign policy crisis. These triggering acts comprise the pool from which we draw the set of challenges in our analysis. However, many international crises have multiple parts and actors, and not all foreign policy crisis perceivers and crisis triggering entities are defenders and challengers, respectively, according to our definitions. A foreign policy perceiver is only a defender if the actor that is triggered has not yet been a challenger for another actor in the same crisis. ICB contains a variable measuring the crisis actor's (i.e., defender's) major response to its foreign policy crisis, and these major responses comprise the set of defense acts in our analysis. The actor that triggers the defender's crisis is the challenger, and the triggering act is the challenge. A defender can end up being a challenger later in the same international crisis, but only if it triggers a foreign policy crisis for another actor that has not already been a challenger. We developed these parameters in order to make a clear empirical distinction among crisis roles, to avoid obfuscation of the relationships between actors, and to deal with a large potential source of endogeneity in the trigger-response dynamic.

In many cases, the actor that carries out the triggering act directly—what ICB refers to as the triggering entity—is the challenger in our analysis. However, some triggering entities are actually proxies - state or non-state - of other adversarial actors of the defender. In these cases, the challenger was defined as the patron of that proxy. In all such cases, the patron doubled as the defender's main external adversary during the triggering act. In other cases, triggering entities are allies of the defender, such as cases in which an actor is drawn into a crisis by virtue of a defense pact with another actor. These cases were excluded from the analysis that follows, as the triggering act is not adversarial in nature. Finally, some triggering entities are international organizations (IOs) like the United Nations. If the triggering act carried out by the IO was non-adversarial, the case was excluded from the

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[33] The project is in the process of expanding the dataset on gray zone crises back to 1918 and up through 2017.

[34] The perception of threat from another state is a key component of the ICB dataset. Some actors in the ICB dataset are also experiencing domestic crises, usually due to either a split in the ruling regime or a violent rebellion by a non-state actor. A case of domestic crisis only becomes an ICB case—i.e., only becomes a foreign policy crisis—when a state experiencing a domestic crisis simultaneously perceives an external threat from another state related to its domestic crisis. A typical form thereof is State A perceiving a foreign policy crisis with State B due to State B's actual or alleged support of a rebellion by Non-State Actor C against State A.

analysis for the same reasons as noted above. If the act was adversarial, the challenger was once again defined as the defender's main external adversary during the triggering act.[35]

Second, we created a four-category variable measuring the type of trigger, i.e., the challenging act. Acts that are non-gray zone fall into one of two categories, and gray zone acts fall into one of three different categories. We classified all acts conducted by a proxy as automatically gray zone, and all direct, overt acts of violence by non-proxy adversary as automatically non-gray zone. All other acts conducted by non-proxy adversaries—those that were direct and non-violent, indirect and violent, or covert and violent—were classified as either gray or non-gray depending principally on the intent of the perpetrator/challenger.[36]

The values of the variable are as follows:
1) Non-violent non-gray zone act:
   a. Non-violent act by challenger that does not qualify as gray zone act
2) Non-violent gray zone act:
   a. Non-violent act by challenger that qualifies as gray zone act
   b. Any act (non-violent or violent) by challenger's proxy (state or non-state actor)
3) Violent gray zone act:
   a. Indirect violent act by challenger that qualifies as gray zone act
   b. Covert violent act by challenger that qualifies as gray zone act
4) Violent non-gray zone act:
   a. Direct, overt violent act by challenger
   b. Indirect violent act by challenger that does not qualify as gray zone act
   c. Covert violent act by challenger that does not qualify as gray zone act

Third, we also created a variable measuring the type of defensive act. It largely mirrors the variable measuring the type of challenging act, with the addition of another category measuring cases of "no response" on the part of the defender, which is one possible response coded by ICB.

The values of the variable are as follows:
1) No response-inaction[37]
2) Non-violent non-gray zone act:
   a. Non-violent act by defender that does not qualify as gray zone act
3) Non-violent gray zone act:
   a. Non-violent act by defender that qualifies as gray zone act
   b. Any act (non-violent or violent) by defender's proxy (state or non-state actor)
4) Violent gray zone act:
   a. Indirect violent act by defender that qualifies as gray zone act

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[35] Crisis "perception" is at least partially a product of a conscious narrative effort, with political and legal implications. At the same time, an actor's narration about being in a state of war or crisis does not necessarily mean a mirroring sentiment by the actor's adversary. Moreover, it is not uncommon for both parties in a confrontation to think of themselves as being the victim, i.e., the defender. All of this necessitates considerable caution in chronological crisis process tracing.

[36] Coders were provided with a list of over 30 possible acts where it was possible to infer intent to engage in gray zone activity. The perception of the act by the target also partially comes into play when making a determination about whether or not the act was gray. Mainly, a non-violent act can be considered gray if the target views its intent as ambiguous, and a covert violent act can be considered grey if the target cannot easily assess culpability.

[37] There are zero cases of "no action" by a defender in the dataset.

b. Covert violent act by defender that qualifies as gray zone act
5) Violent non-gray zone act:
a. Direct, overt violent act by defender
b. Indirect violent act by defender that does not qualify as gray zone act
c. Covert violent act by defender that does not qualify as gray zone act

4.1 Dependent Variables

Hypotheses 1.1, 1.2 and 1.3 are primarily concerned with whether the challenging act is gray zone. However, it is also important to distinguish between the other two major choices that a challenger can make: a non-violent non-gray zone act and a violent non-gray zone act. Hence, to test Hypotheses 1.1, 1.2 and 1.3 we coded a three-point categorical indicator of challenge acts, with one value for each of the three major categories identified above. In Figure 5.1, this entails a comparison of the area circumscribed by the "gray zone" oval to the areas outside of this "gray zone" oval that are non-violent and violent, respectively.

Figure 5.1. Variable Categories
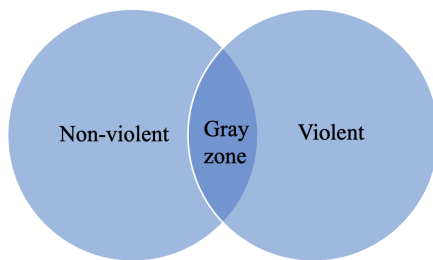
Hypothesis 2.1 asks how challenge and defense acts relate to one another in terms of intensity. Relative to a challenge, a defense act can be de-escalatory (i.e., move down the scale of intensity), matching in intensity, or escalatory (i.e., move up the scale of intensity). To assign each case to one of these three categories, we utilized newly created variables measuring the tools (i.e., tactics) that a challenger and defender use during the trigger act and major response, respectively. These are fine-grained measures, with 27 different tools that challengers and defenders can use (see Appendix A). The set of 27 tools are identical for challengers and defenders. Challengers and defenders were assigned one tool per case, and when they used multiple tools, the most salient was selected. We then compared the intensity of the tool used by the challenger to the intensity of the tool used by the defender, and assigned each case according to whether the defender action was of lesser (de-escalatory), matching, or greater (escalatory) intensity (see Appendix B). To test Hypothesis 2.1, we then created a dichotomous indicator of whether or not defender escalation occurred in response to a challenge.

4.2 Independent Variables

To assess the effect of regime on challenger and defender acts, we use POLITY2 scores from the 2017 version of the Polity project's Annual Time-Series dataset (Marshall, Gurr, and Jaggers, 2017). Polity measures a state's level of democracy based on an evaluation of that state's elections for competitiveness and openness, the nature of political participation in general, and the extent of checks on executive authority. The use of the Polity measure as an

indicator of regime is well-established in the field. For cases of regime transition, the POLITY2 variable interpolates regime scores across the length of the transition.

To test Hypothesis 1.1, we use a continuous measure of challenger regime that consists of the POLITY2 score of the challenger in the year of the challenge. Given that this regime indicator is continuous, it is possible that the effect of challenger regime on challenger acts is non-linear. Also, the Polity scale is known to double as a measure of state weakness, with the mixed (i.e., anocratic) regimes in the middle of the scale generally being weaker than those on the consolidated authoritarian and democratic ends. For these two reasons, we also assess the possibility of a curvilinear relationship between challenger regime and challenger acts, using an indicator of the challenger regime squared. To test Hypothesis 2.1, we use identical indicators of defender regime and defender regime squared.

To assess the effect of power relations on challenger and defender acts we utilize data from version 5.0 of the Correlates of War Project's National Material Capabilities (NMC) dataset (Singer, Bremer, Stuckey 1972) to create a new index of power disparity between defender and challenger. NMC has annual data from 1816-2012 on six individual components of state power: military personnel, military expenditure, total population, urban population, iron and steel production, and energy consumption. We extended NMC data to 2015, using the NMC codebook and the sources identified therein to collect this data ourselves.

We used an Itemized Response Theory (IRT) model to create an index of power disparity between defenders and challengers. Data were imported and collected on all six NMC components for all defenders and challengers in the year of the challenge. Military expenditures were adjusted from constant to real dollars, using the year 1983 as the base. For all six components of NMC, we calculated the difference between the individual values in an adversarial pair for each actor observation in ICB. We divided that difference by the values of the crisis observation in order to derive a proportional power differential scaled to the crisis perceiver. We then grouped those differences into quintiles and used an IRT Graded model to create an index of power disparity between the crisis perceiver and its crisis trigger adversary.[38] Because not all cases in the ICB dataset involve reciprocal crisis perception and trigger adversaries, inputs into the IRT model are imbalanced. Therefore, power disparity scores do not always mirror one another for adversarial pairs consisting of defenders and challengers where both perceive a crisis. Hence, for an adversarial pair, we defined the final power disparity score as the maximum of the absolute values of the individual adversaries in the pair.

The resulting power disparity index is used to test Hypothesis 1.2 and ranges from 0.0056417 at its low end to 1.650469 at its high end, with larger values indicating greater disparity. We defined any case where the power disparity index was less than or equal to 0.5 as power parity – i.e., the defender and its challenger were "near-peers" – and any case where the index was over 0.5 as power disparity. We also include an indicator of whether the defender was less or more powerful than its challenger, based on the raw proportional power differentials.

To test Hypothesis 1.3, we use a variable that measures the state capacity of the defender, indicating whether a particular defender state is a weak or a strong one. We use a latent

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[38] An IRT Graded Response Model is valuable because it weights the component variables of an index according to which ones are most able to distinguish the observations from one another, and is able to handle some missing data on components.

indicator drawn from a State Capacity Dataset developed Hanson and Sigman (2020), where the data is pooled on 21 different indicators related to three dimensions of state capacity – extractive, coercive, and administrative – and a latent indicator is estimated using a Bayesian Markov-Chain Monte Carlo technique.[39]

4.3 Control Variables

There are five factors that we control for in the *models of both challenger and defender behavior*. First, we control for whether or not the crisis is part of a protracted conflict, a dichotomous measure drawn from the ICB dataset.[40] Protracted conflicts tend to be marked by a history of failed peace efforts. Colaresi, Raisler, and Thompson (2007) (using 1918-1994 ICB data) argue that a history of rivalry between states causes suspicion and expectation of malice, leading one to interpret adversary's behavior more pessimistically, and to act more aggressively to pre-empt that behavior. They find that lasting interstate rivalry is more likely to break out into crises, which then escalate into violence, and are also more prone to escalate into war. Brecher (1993, 2016) (also using ICB data) shows that crises in a protracted conflict are more violence prone.

Second, we control for whether or not a crisis is ethnicity driven, another dichotomous indicator drawn from the ICB dataset.[41] Crises in which identity plays a dominant role tend to be characterized by higher stakes, less divisible issues, and higher levels of mistrust. Adversaries in both protracted and ethnic conflicts tend to have hardened, embedded, and negative views of one another's intentions. This should increase the probability of more hostile challenger and defender actions, disproportional reactions, and escalation.

Third, we control for the period in which the crisis occurs. We use a dichotomous indicator of whether the crisis occurred during the 1963-1990 period (Cold War) or the 1991-2015 period (post-Cold War) to control for any possible differences in violence, gray zone, and escalation patterns attributable to the major change in the dynamics of the international system with the end of the Cold War.

Fourth, we include the POLITY2 score of the adversary regime in all models. In the challenger models, the indicator measures target defender regime; in the defender models, it measures target challenger regime.

Fifth, we control for the state capacity of the challenger. Again, we use the latent indicator of state capacity from Hanson and Sigman's State Capacity Dataset, in this case measured for the challenger.

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[39] We feel confident employing Hanson and Sigman's (2020) latent indicator because it correlates highly (r = 0.7923) with an often-used measure of state capacity that we employed in a previous iteration of this paper covering the 1990-2015 period tax-to-GDP ratio. Furthermore, the latent indicator has significant added benefits over the tax-to-GDP ratio measure: it covers a larger geographic area, is better equipped to handle missing data on some of the component indicators (which in turn improves its geographic coverage), and covers a longer time period (1960-2015).

[40] ICB distinguishes between two types of protracted conflict: those that are and are not part of long wars. These two kinds of cases were collapsed into a single category measuring protracted conflict.

[41] Within ethnic driven cases, ICB further distinguishes between crises driven by secessionism, irredentism, and other types of ethnic issues. We collapse all three of these categories of ethnic driven conflict together.

There are two additional control variables exclusive to the defender models. First, we control for the effect that violence in the challenge has on the defender's response by including a dichotomous indicator of whether the challenge act was violent. Second, we control for the gravity of threat perceived by the defender, a dichotomous measure drawn from the ICB dataset. We coded all cases where the perceived threat was unquestioningly very high—threat of grave damage or threat to existence—as the "1" category and all other types of threats as "0." High levels of perceived threat increase the stakes, and as a result can lead defenders to respond more aggressively and escalate in countering those threats.

4.4 Statistical Models

We use logistic regression models to assess our hypotheses about challenger and defender behavior. Since the dependent variable used to test H1.1, H1.2, and H1.3 is a three-point categorical indicator, we use a multinomial logit model to test these hypotheses. While the three major categories of challenger and defense acts can be set up on a continuum of severity, treating them as categorically rather than ordinally distributed is preferable because they are discrete choices. Modeling them as such provides greater empirical clarity and conceptual yield. A binary logit model is used to test H2.1 due to the binary nature of the dependent variable assessed in this hypothesis: defender escalation.

Given that international crises typically consist of multiple actors that are experiencing foreign policy crises, it is necessary to statistically account for the interrelatedness among actors and actions. We do so by reporting clustered robust standard errors rather than regular standard errors, to account for any heteroskedasticity in the models. We cluster standard errors by the international crisis as defined by the ICB variable CRISNO. There are a total of 254 clusters in the data.

For ease of interpretation, the results are discussed by calculating the predicted probability of observing a particular value of the dependent variable, given a specific value or values of the independent variable(s) of concern. All other variables are held constant at their individual average effects. The -margins- command in Stata was used to generate the reported probabilities.

5. Analysis

As noted above, the research design for this study calls for the testing of four hypotheses: three pertaining to the expected behavior of challengers whose actions initiate the crises, and one pertaining to the expected response of defenders. We assess the impact of regime types of adversaries, the power discrepancy between them, and state capacity on their crisis behavior.

H1.1: The more democratic the challenger is, the more likely it is to use gray tools in the opening act of a crisis.

As we can see from Figure 5.2 below, this hypothesis is not confirmed. Generally speaking, the more autocratic a challenger is, the more likely it is to trigger crises through gray tactics. The most authoritarian regimes have a 0.45 higher likelihood of triggering crises through gray tactics than the most democratic regimes. However, the relationship is not strictly linear. At the far authoritarian end of the curve (the left end of the curve in Figure 5.2), there is a

fairly linear relationship between more authoritarianism and a greater likelihood of using gray tactics to trigger a crisis. However, the curve bottoms out in the middle of what Polity informally classifies as the anocratic range and stays pretty level from there all the way through highly institutionalized democracies on the right end of the curve in Figure 5.2. In fact, there isn't a whole lot of difference between democratic-adjacent anocracies and actual democracies in terms of their use of gray zone challenges: highly institutionalized democracies have at most a 0.03 higher likelihood of using gray zone challenges than democratic-adjacent anocracies.

Figure 5.2: Effect of Regime of Challenger on Probability of Gray Zone Challenge
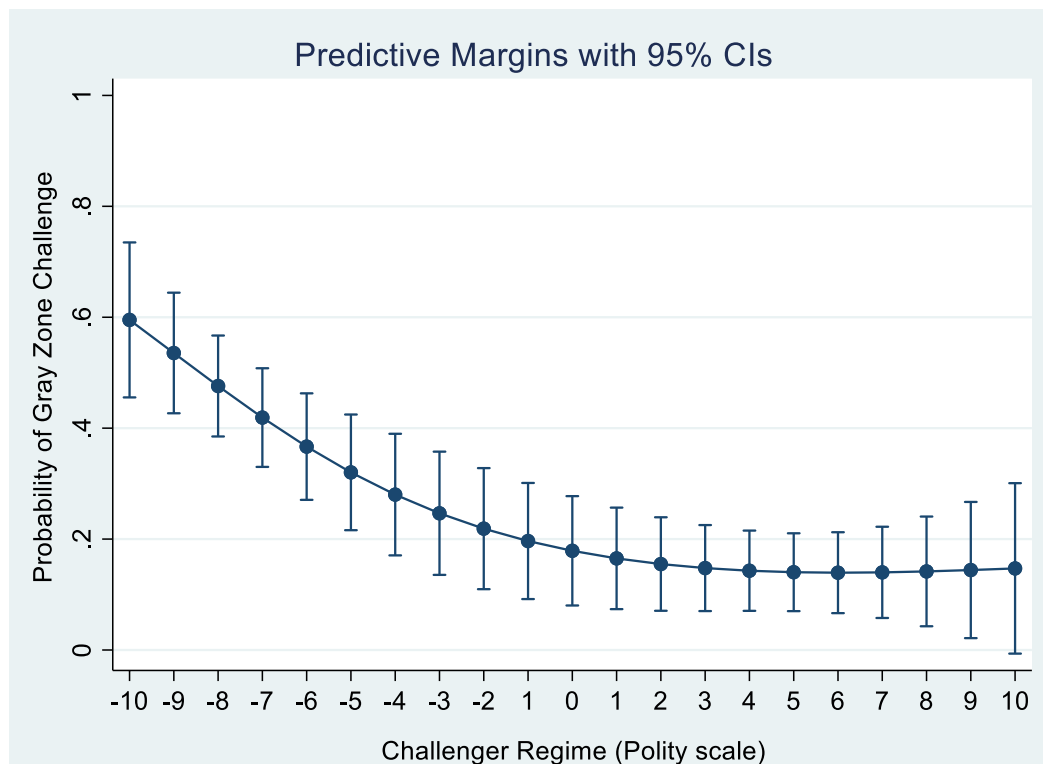
We were curious to see if the choice of gray zone is more relevant as an alternative to violence or non-violent but also non-gray tactics. We find that the more autocratic a challenger is, the greater the probability that challenger will use gray zone tactics over non-gray violence, but not over non-gray non-violence.

H1.2: When the challenger and the defender are near peers in power, the challenger is more likely to use gray tactics.

Our analyses show that this hypothesis is supported, though the effect is relatively mild. Challengers facing a near peer defender have a 0.13 greater likelihood of issuing a gray zone challenge than those facing a non-near peer defender (see Figure 5.3).[42] In contrast to the

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[42] While near peers behave differently than non-near peers, the latter category includes two distinct types of cases, namely those where challengers are either significantly stronger or weaker than their non-near peer defenders. We ran alternative models for H1.2 in which we separated non-near peer cases into weak challenger/strong defender and strong challenger/weak defender. We found no statistically significant difference between these two distinct types of non-near peer cases in terms of their usage of gray zone, non-gray violence, or non-gray non-violence.

finding for challenger regime in H1.1, we find that near power equivalence among the antagonists increases the probability of the challenger using gray zone tactics over non-gray non-violence, but not over non-gray violence.

Our results suggest that in near-peer crises, challengers find it difficult to tell who has the upper hand and as a result, they do not attempt to overwhelm the opponent with violence. Instead, challengers are looking for subtle shifts in the balance through other means, and the choice of gray zone is calculated to minimize the risk of overly antagonizing an adversary whose relative power may be ambiguous. This is consistent with the implications of Stability-Instability Paradox (SIP) discussed above: when the prospect of violent conflict looks like a mutually unacceptable cost, the probing behavior that nevertheless goes on below that threshold can still occasionally erupt in a crisis. These findings run counter to the implications of the PTT, which, as discussed above, suggested that near-peer situations would be the most prone to violence.

Figure 5.3: Effect of Peer Status on Probability of Gray Zone Challenge
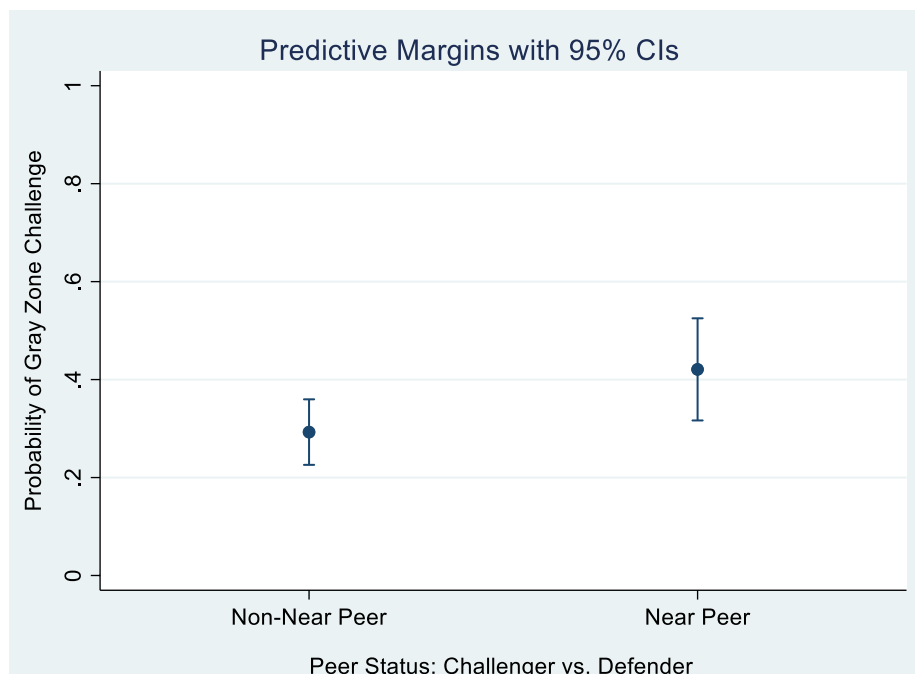

H1.3: The challenger is more likely to use gray tactics against weak capacity defenders than strong capacity defenders.

We find strong support for this hypothesis. Challengers facing the weakest capacity defenders have a 0.44 greater likelihood of issuing a gray zone challenge than those facing the strongest capacity defenders. The effect is roughly linear, and the likelihood of challengers using gray zone tactics against strong defenders is quite low at 0.10 (see Figure 5.4). Similar to the finding for near peer status in H1.2, we find that defender capacity influences the probability of a challenger using gray zone tactics vis-à-vis non-gray non-violence, but not over non-gray violence.[43]

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[43] We also ran an alternative model for H1.1, 1.2, and 1.3 in which we separated direct and indirect non-gray violent challenges into their own categories. While the results from our main model show that neither peer status nor defender capacity influence the chances of a challenger using gray zone tactics over non-gray violence, the

The use of gray tools against weak capacity defenders is consistent with the attempt to exploit the internal weaknesses of an opponent. Although state capacity is not a measure of relative power between rivals, but rather of a state's theoretical capability to muster it in crisis, it is interesting to note the proportionality of challenger's approach here. Namely – it would seem sufficient to challenge weak capacity states with gray tools to throw them off balance, without the need to bring out the full force – which would indirectly support the assumption that gray tools will be used against the weak opponents.

Figure 5.4: Effect of Defender Capacity on Probability of Gray Zone Challenge
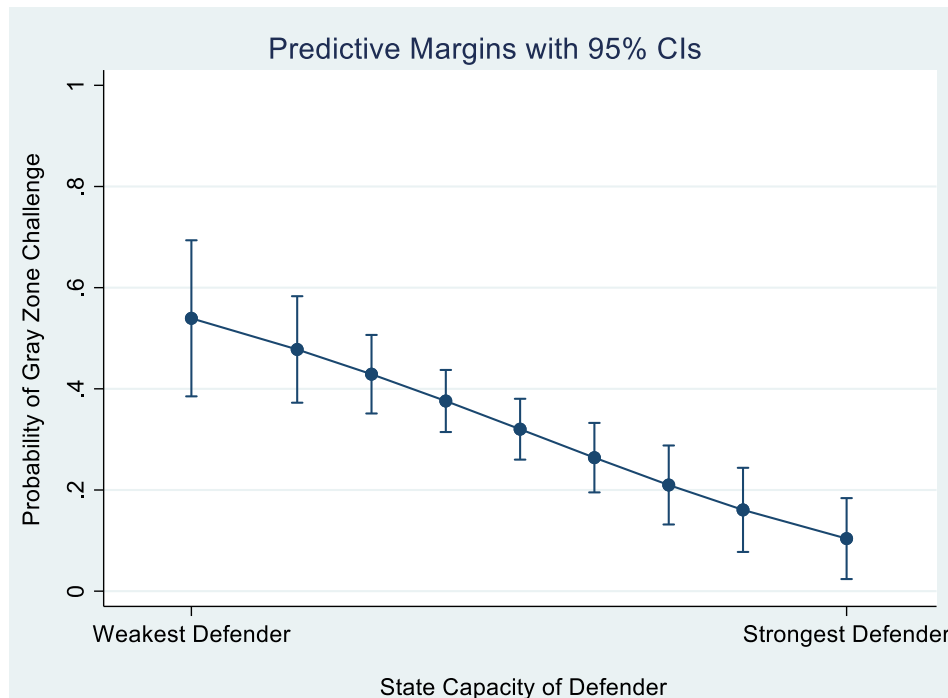
The introduction of control variables helps to clarify the findings further. Actions that can be classified as gray zone are more likely to be chosen by the challenger when they are less democratic than the defender. This finding is consistent with our expectations: in probing democratic states with gray tools, non-democratic states are likely attempting to exploit public opinion divisions and slower-moving decision-making systems in democracies. In addition, gray zone challenges are more likely, and violent challenges are less likely, in the post-Cold War era than during the Cold War. This is consistent with other evidence that the post-Cold War period has exhibited less armed interstate conflict than the Cold War period (Strand and Buhaug, 2018).

H2.1: The less democratic the defender state is, the more likely it is to escalate in a crisis.

We now switch our focus from the actions of challengers to the reactions of defenders. As previously discussed, we use a dichotomy to classify defenders' responses, wherein a

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alternative model showed that this is especially the case when the alternative for a defender is non-gray direct violence. The alternative model also showed that more autocratic challengers are more likely to use gray zone tactics over both direct and indirect non-gray violence.

reaction by the defender that can be considered stronger than that of the challenger is classified as escalation, and a reaction by the defender that is less aggressive or roughly equivalent is classified as non-escalation. As Figure 5.5 shows, we have almost a perfect inverted U-shaped curve, wherein anocratic defenders are most likely to adopt an aggressive approach and escalate crises beyond the type of event that triggered the crisis at the outset. We also note no meaningful difference between the propensity to escalate for consolidated democracies or autocracies. In both cases, the probability of escalation increases as the regimes move closer to anocracy, although the effect is not highly pronounced ($p = 0.052$). In this regard, then, we only find partial support for H2.1.

Other factors also affect defender escalation. Strong capacity defenders that are not near peers of their challengers are more likely to escalate than defenders that have weak capacity or are facing near peer challengers. Also, defenders are more likely to escalate when they are challenged in a non-violent manner. In addition, defenders are more likely to escalate against more democratic challengers. There is also evidence approaching statistical significance that defenders are more likely to escalate against weak capacity challengers. These generally match our theoretical expectations. Defenders adopt more aggressive responses when they have the capacity to do so and perceive fewer costs and a greater chance of success by upping the ante against weak capacity states that initiate less intense challenges and may lack the ability to continue the conflict at a higher level of intensity.

Figure 5.5: Effect of Regime of Defender on Probability of Defender Escalation
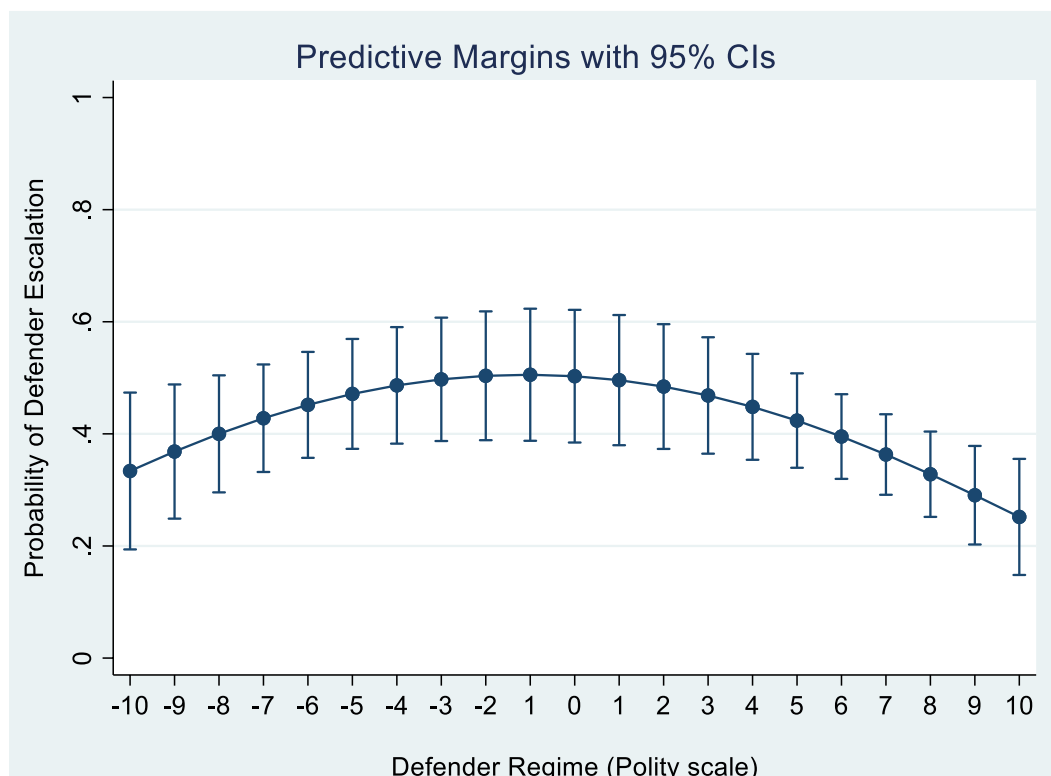
What happens when we compare defender response against democratic and autocratic challenger regimes? To answer this question, we disaggregated the analysis by the regime

type of the challenger.[44] In Figure 5.6, one can see that the rate of decline in the probability of defender escalation is steep against democratic challengers, going from 0.65 near the middle of the range of anocratic defender states to under 0.20 for most highly democratized defenders, including a very low escalation probability of 0.06 by the most institutionalized democratic defenders against democratic challengers. In contrast, the effect of defender regime on defender escalation against autocratic challengers is only approaching statistical significance. The inverted U shape is retained, but there is not a statistically significant difference between anocratic and democratic defenders in terms of their probability of escalating against autocratic challengers. The probability of highly democratized defenders escalating against autocratic challengers is above 0.20 ($p = 0.106$). In other words, defenders that are on the more democratic end of the regime scale exhibit a much sharper drop-off in their likelihood of escalation against a democratic challenger than their likelihood of escalation against a challenger on the autocratic end of the regime scale.

Figure 5.6: Effect of Defender Regime on Probability of Escalation in Response to Challenge from a Democratic Challenger
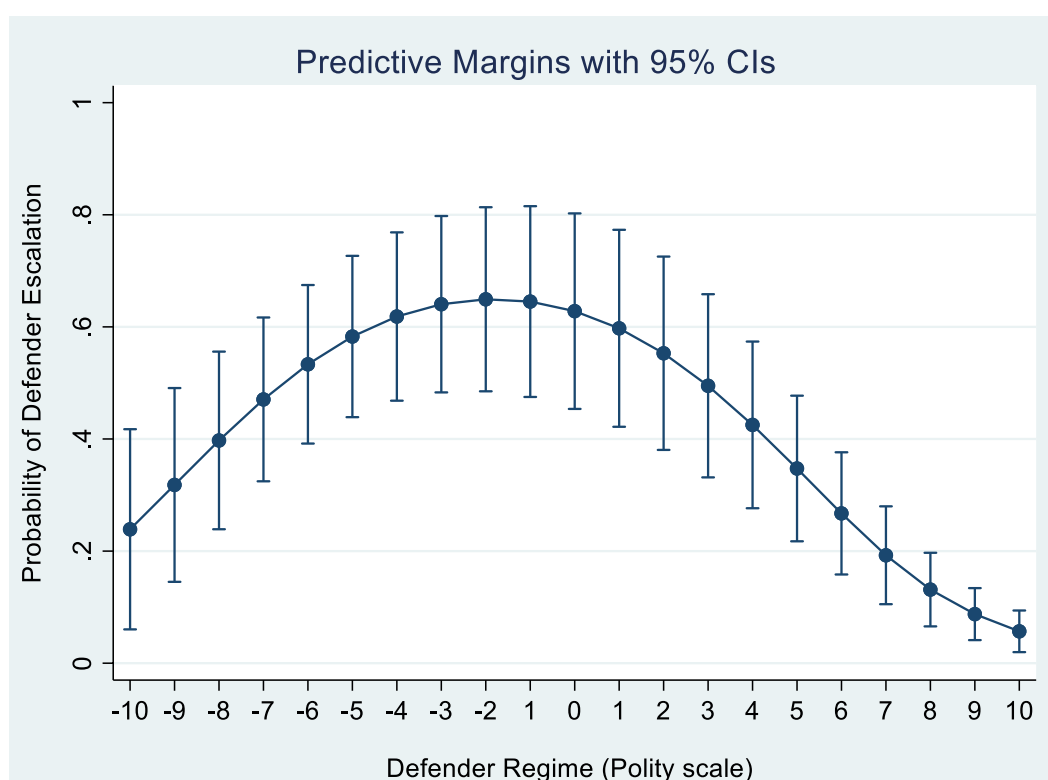
6. Key Findings and Policy Implications

In this study, we have examined the impact that regime type, power discrepancy, and state capacity have on the way crises have been triggered and responded to historically. We have focused specifically on the effect that these factors have on the use of gray zone as tools by

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[44] We used reduced models when disaggregating the analysis by challenger regime because when the challenger is a democracy, defender escalation rarely occurs if the challenger and defender are near peers, if the threat is grave, or if the crisis is ethnic-driven. We dropped these three control variables from the disaggregated analytical models because they cause severe estimation problems.

which actors in crisis challenge one another and respond to those challenges, as well as the role that they do or do not play in escalation management during crises.

Our main finding is that in determining the choice of tools for challenging an adversary or in defending from such a challenge, regime type of the states involved plays a lesser role than the capacity of these states. Namely, this suggests a strong state-level explanation for international behavior – albeit one that stems not from the norms associated with regime type, but rather from institutional capacity for action. Overall, we found that strong capacity states are more likely to use violence in challenging their opponents, and also more likely to escalate a crisis when acting as a defender – regardless of their regime type.

We found that autocratic states are the most prone to use gray tools, and they are most likely to use these tools against democratic states. Highly autocratic states show no significant difference from their highly democratic counterparts in terms of their propensity to escalate to defend their interests. Instead, anocratic states are those most likely to escalate once they are challenged.

The second significant finding in this study is the prevalence of gray/hybrid tools in near-peer crises. While we have found that power discrepancy between challenger and defender does not affect their choice to use violence, power relations do become significant once the choice to use violence has been ruled out. Namely, we found that the lesser the power differential between challenger and defender, the more likely they are to choose gray/hybrid tools - as opposed to other non-violent forms of initiating or responding to a crisis.

Acknowledgments

Appendix A: Action Tools and Coding Escalation

Action Tools

Our dataset contains variables measuring the specific action "tools" (i.e., tactics) that challengers use during their triggering acts and defenders use during their initial responses to those triggering acts. There are 27 different "tools" that actors can use. The categories are identical for both challengers and defenders, making for a 27 x 27 matrix of 729 joint outcomes.

Tool categories
0. Other: act internal to the actor that cannot be linked to an external state adversary (e.g., act by internal, non-proxy, non-state actor), act by an ally (e.g., request for aid or invocation of alliance commitment), non-adversarial act by an international agency, act internal to the actor's adversary that is not directed at the actor (e.g., leadership change not directed at the actor)
1. Negotiations/talks
2. Diplomatic cooperation (e.g., re-establishing relations)
3. Economic cooperation
4. Military de-escalation
5. Reach agreement (formal or semi-formal)
6. Diplomatic condemnation or call for action – national or international
7. Withdrawal from negotiations or non-cooperation
8. Downgrade diplomatic relations (e.g., recalling ambassador, reducing mission size)
9. Withdrawal from/violation of agreement (arms control, trade, human rights, climate, etc.)
10. Trade restrictions (e.g., taxes, quotas, fines, nationalization of assets)
11. Economic sanctions – national or international
12. Sever diplomatic relations
13. Border closure
14. Destruction of assets (cyber, aerial, economic, etc.) with no loss of lives
15. Support of internal/sleeper proxies (e.g., funding or providing arms to particular NSAs or political groups)
16. Ultimatum/threat of military action
17. Covert non-violent act (e.g., weapons development in secret, covert military preparations)
18. Coup/regime change: successful or attempted coup, declaration of independence, territorial change
19. Act by proxy (e.g., rebel incursion, suicide bomber)
20. Show of force (e.g., weapons test, weapons development)
21. Troop mobilization (e.g., putting troops on high-alert, military preparations)
22. Covert violence: violent act committed with cover of deniability
23. Strategic deployment of assets/movement towards adversary (e.g., troops to border, destroyer to shores)
24. Violent action against adversary's proxy (indirect violence)
25. Violent action against state adversary (direct violence)
26. Violent action against any actor other than the state adversary or the state adversary's proxy (indirect violence)

In cases where multiple tools are used by a challenger or defender, the most antagonistic tool is coded.

Coding Escalation

The action tool categories described above are organized in a roughly ordinal fashion according to the degree of antagonism exhibited by the action tool ranging from cooperative through violent acts. Because the categorical organization of these variables is not *absolutely* ordinal, to generate our measure of escalation we assessed the relative antagonism of a defender's response to a challenger's action, i.e., the joint outcome in each cell. The most pacific actions are those that are cooperative in nature, and can generate mutual, persistent gain. The most antagonistic action tools are designed to impose major and irreversible costs directly on an adversary.

Outcomes were coded as one of three categories:

- De-escalatory: The defender responds to a challenger action with less punitive, indirect, and rapidly reversible action.
- Matching: The defender responds to a challenger action with the same or equivalent level of cooperation, antagonism, or impact.
- Escalatory: The defender responds to a challenger action with more punitive, direct and irreversible action than the initial act.

Final category assignments for some outcomes depended on additional factors. First, in cases where challengers and defenders both used violence of a similar scope (i.e., they would be matching if measured in a vacuum), the scale of violence in the challenge act compared to that of the defense act was used to assign categories. Scale of violence was measured for both challenge and defense acts by adopting the ICB measure of severity of violence, a four-category ordinal measure that ranges from no violence on the low end to full-scale war on the high end. Second, some outcome category assignments were made on a case-by-case basis. This occurred when the challenge or defense tool category included a wide range of actions, mostly when the tool category of "other" was used. Both antagonism and permanence of gain or loss were considered when making final assignments for these cases.

Appendix Table A shows how each challenger x defender outcome was coded. Challenger actions, which were assumed to precede defender actions are in rows, and defender actions are in columns.

To test Hypothesis 2.1, we coded a dichotomous indicator of escalation, comparing cases coded escalation to those coded de-escalation or matching according to the above three-point category rubric.

Appendix B: Statistical Tables

Appendix Table B.1. Binary Logit Model of Challenger Violence

Challenger Regime Score	0.358*** (0.121)
Challenger Regime Score squared	-0.015*** (0.005)
Challenger State Capacity	-0.078 (0.234)
Defender Regime Score	0.009 (0.024)
Defender State Capacity	-0.223 (0.208)
Defender-Challenger Relative Power Relations: Near-Peers	-0.304 (0.266)
Direction of Defender-Challenger Relative Power Relations	0.167 (0.263)
Ethnic-Driven Crisis	-1.116*** (0.404)
Protracted Conflict	0.702** (0.316)
Period/Polarity	-0.597* (0.354)
Constant	-1.958*** (0.527)
N	342
df	10
Number of Clusters (International Crises)	254
LR Chi-square	23.85***
*p≤0.1; **p≤0.05; ***p≤0.01	

Appendix Table B.2. Multinomial Logit Model of Challenger Gray Zone Acts

	Equation 1: Gray Zone Acts (baseline) vs. Non-Violent, Non-Gray Zone Acts	Equation 2: Gray Zone Acts (baseline) vs. Violent, Non-Gray Zone Acts
Challenger Regime Score	0.177 (0.154)	0.452*** (0.151)
Challenger Regime Score squared	-0.003 (0.008)	-0.016** (0.007)
Challenger State Capacity	0.096 (0.325)	-0.052 (0.282)
Defender Regime Score	-0.082*** (0.030)	-0.043 (0.027)
Defender State Capacity	0.952*** (0.221)	0.251 (0.235)
Defender-Challenger Relative Power Relations: Near-Peers	-0.706** (0.340)	-0.592* (0.324)
Direction of Defender-Challenger Relative Power Relations	0.060 (0.361)	0.025 (0.332)
Ethnic-Driven Crisis	0.314 (0.511)	-0.843* (0.459)
Protracted Conflict	-0.098 (0.392)	0.670* (0.389)
Period/Polarity	-0.290 (0.448)	-0.848** (0.426)
Constant	-0.216 (0.641)	-1.336** (0.634)
N	342	
df	20	
Number of Clusters (International Crises)	254	
LR Chi-square	66.27***	

*p≤0.1; **p≤0.05; ***p≤0.01

Appendix Table B.3. Binary Logit Models of Defender Escalation

	Model A: Full Sample	Model B: Democratic Challengers Only	Model C: Autocratic Challengers Only
Challenger Regime Score	0.052* (0.028)	---	---
Challenger State Capacity	-0.433* (0.426)	-1.176** (0.529)	-0.159 (0.404)
Defender Regime Score	0.281** (0.117)	0.861*** (0.313)	0.337** (0.144)
Defender Regime Score squared	-0.014*** (0.005)	-0.047*** (0.015)	-0.016** (0.007)
Defender State Capacity	0.871*** (0.247)	1.600*** (0.563)	0.694** (0.309)
Defender-Challenger Relative Power Relations: Near-Peers	-0.494 (0.313)	---	---
Direction of Defender-Challenger Relative Power Relations	0.334 (0.278)	-0.020 (0.781)	0.590 (0.411)
Ethnic-Driven Crisis	0.398 (0.383)	---	---
Protracted Conflict	0.457 (0.349)	-0.066 (0.751)	0.896** (0.423)
Period/Polarity	0.042 (0.354)	0.629 (0.768)	0.126 (0.465)
Gravity of Threat	-0.159 (0.408)	---	---
Violent Challenge	-1.213*** (0.373)	-2.313** (0.910)	-1.404*** (0.488)
Constant	-1.830*** (0.552)	-1.148 (1.332)	-2.270*** (0.670)
N	342	60	195
df	12	8	8
Number of Clusters (International Crises)	254	50	146
LR Chi-square	43.28***	19.14**	21.91***
*p≤0.1; **p≤0.05; ***p≤0.01			

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Chapter 6: Escalation Management in Gray Zone Crises: The Proxy Factor

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Introduction

The use of proxy actors in competition and conflict between states can be traced at least to the days of the Roman Empire. Yet despite the relative robustness of the literature on this subject overall, a gap remains in attempting to empirically understand the relationship between proxy use and strategic choices in interstate crises. This paper addresses a critically important knowledge gap pertaining to the dynamics of how states employ proxies to achieve their strategic goals in the so-called "gray zone" between normal competition and armed conflict.

The fundamental question we address is whether there is an underlying relationship between the employment of proxies and the incidence of violence during a crisis. The incidence of interstate war and direct conflict between conventional forces has declined steadily since the beginning of the nuclear age (Szayna et al, 2017; Pettersson and Eck, 2018). In its place, operations characterized as conflict in the "gray zone" (Votel et al., 2016), "non-obvious war" (Libicki, 2012), or most recently, as conflict in the "competitive" space between cooperation and war (2018 U.S. National Defense Strategy; 2019 U.S. National Security Strategy) are increasingly used by major powers to gain strategic security advantages by enhancing the ambiguity of the operational setting.

The focus of this study is the basic question of whether the use of proxies by the challenger in a crisis decreases the probability that the defender state will respond with violence. We start by examining a broad set of crises where the initial triggering act is either non-violent or violent, to assess whether defenders respond to proxy triggers or triggers by the challengers themselves with a greater propensity for violence (Hypothesis A). We also consider a narrower set of cases, where the triggering act is violent, asking whether the defender is more likely to respond in a tit-for-tat manner to a proxy, or to a state challenger (Hypothesis B).

Some of the key debates in the literature on proxy use concern their utility for limiting the cost of conflict to the sponsor state, weighted against their propensity to drag the sponsor into conflicts. However, reliable data to impute intent to states that employ proxies remains scarce, and the authors have decided against testing hypotheses related directly to intent. This necessary limitation nevertheless continues to present promising avenues for future research.

The findings presented here suggest that the use of proxies has an important and nuanced relationship with escalation. Their use is associated with a higher probability of defender violence, regardless of whether the initial crisis trigger was itself violent. In addition, when

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the trigger is violent, defenders are more likely to respond in a tit-for-tat manner when a proxy does the triggering, which serves as additional evidence that use of a proxy does not control escalation writ large. In other words, proxy usage actually leads to violent escalation, potentially questioning the assumption that challengers may minimize damage through the use of proxies.

The specific focus of this research on international crises was facilitated by access to the International Crisis Behavior (ICB) dataset, which covers all international crises for the period 1918-2016 (Brecher et al, 2021). Our focus on gray zone crises, and proxy behavior in particular, necessitated an expansion of the original ICB data to incorporate a suite of new variables assessing the types of behavior exhibited by challenger and defender states. This paper covers the period from 1963 to 2015, i.e., from the height of the Cold War to well into the current international system and examines the empirical evidence regarding escalation management associated with the presence of proxies.

1. Conceptualizing Proxy Use

1.1. Defining Proxies and Proxy Conflict

One of the key features of gray zone conflict is intentional ambiguity regarding either an aggressor's intent or identity. Although use of unattributed cyber-attacks, "fake news," and economic and social media manipulation have lately brought gray zone tactics into popular consciousness, one particular tactic – use of proxy actors – can be traced to much earlier periods. Mumford (2013) and Libicki (2012) define a proxy as the client in a patron-client relationship in which the patron (i.e., the challenger) provides material support (funding, arms, training) to the proxy for the purpose of supporting the patron's interests in a conflict with a third actor. That is, a requirement of proxy conflict is that there exists some conflict between a challenger and a defender prior to the point at which the proxy is engaged (Klare, 1981). In addition, Dunér (1981) points out the difficulty of identifying a proxy in practice rather than conceptually. Rather than intent, as per Mumford (2012), he argues that the observable indicator of a proxy relationship is power: namely, a presumptive proxy's dependence on material assistance and the resulting leverage a patron can have over its objectives and actions.

Loveman (2002) and Mumford (2013) for example, argue that the principal (i.e., the challenger) can only be indirectly involved for the conflict to qualify as a proxy conflict. Salehyan (2010) distinguishes proxy warfare from direct warfare with the concept of delegation from a patron to a proxy actor. He also includes sequence as a defining factor: a conflict does not qualify as a proxy war if its roots and onset occur prior to the involvement of the challenger, the challenger exerts little or no direct control or influence over its proxy, and the proxy maintains its organizational autonomy. If so, Salehyan (2010: 501) classifies it as an intervention. To be classified as a proxy conflict, the challenger must play a key role in influencing and exerting control over how the conflict plays out. Most importantly, proxy actors are dependent on foreign governments for their existence, or at the very least its conflict with the opponent is "made possible" by the military support of a patron. As a result, the challenger has some degree of control over its proxy's goals, strategies, or tactics. In other words, in the case of proxy conflict, in comparison to an intervention, the proxy lacks a considerable degree of autonomy.

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Ideally, identification of a proxy relationship requires data regarding the extent to which a presumed proxy is actually working at the behest of, or with the direct support of, a challenger *in a way that it would not or could not do otherwise*. In the research reported here, we follow the lead of Dunér (1981), Libicki (2012), and Mumford (2013), as discussed above, defining proxy conflict by two characteristics. First, patronage: a state acts as a patron toward a client, which can be a non-state militia, a violent non-state actor (e.g., U.S.-Contras, Iran-Hezbollah), or another state (e.g., Russia-Syria under Assad, U.S.-South Vietnam, Iran-Houthis). The patron state can provide funding, training, support (including diplomatic), protection, etc. to the proxy for the purposes of the patron's own security and to lower the risks or costs that the patron would incur by taking direct action. Patronage can often be difficult to prove because, in order to avoid direct retaliation, patron states frequently deny responsibility for a proxy's actions. We argue that military funding can be taken as an indication of a patron's leverage over a proxy, if the funding is seen by the proxy as a good provided by the patron, and if it believes that if it were to take an action harmful to the patron's interests those funds would be revoked. Second, autonomy: an event can be characterized as a proxy conflict when the patron state appears to have some degree of control over the proxy's goals, strategies, or tactics, as evidenced by close consultation between patron and proxy prior to the triggering event of the crisis. In other words, the patron is not simply sending material or informational support to a client that is acting in a purely autonomous manner (Quinn and Wilkenfeld, 2020). In this study, we used historical understanding of patron-client relationships and the perceptions of Defenders as signals that there was a proxy relationship.

1.2. Why Use Proxies

Conflict research suggests the following main, non-mutually exclusive reasons why a challenger might employ proxy actors: 1) cost avoidance to advance its strategic interest (e.g., in terms of public opinion, financial commitments, loss of life, and importantly, the risk of conflict escalation); 2) as a supplementary force in an ongoing conflict (Thies, 2001); 3) imposing additional costs on the adversary - as a way of spoiling and destabilizing. Most academic literature on this subject presumes the cost savings rationale: the challenger seeks to lower the risks it would otherwise incur by taking direct action (Bryman, 2018; Mumford, 2013; Duner, 1981; Klare, 1989).

Literature on alliance entrapment makes a contrary assumption: instead of deliberately engaging a Proxy for the crisis triggering act to save costs, a challenger gets reluctantly roped into a conflict, which the Proxy initiates - emboldened by their alliance (Snyder, 1997). Nevertheless, a growing body of recent empirical studies (Kim, 2011; Beckley, 2015; Yarhi-Milo, Lanoszka, and Cooper, 2016) portrays entrapment as a theoretically overrated risk that is in practice well understood and carefully managed by decision-makers. The U.S. - and other states - were shown to use careful assessment of ally interest compatibility and deliberate vagueness or secrecy of agreements (Morrow, 2000) to guard against entrapment. Indeed, alliance entrapment has been increasingly accepted as a risk preferable to that of abandonment (e.g., Pajon et al, 2016). Furthermore, recent research shows that Russian information campaigns have attempted to use narratives rousing fear of entrapment, in attempts to sow divisions among NATO members - with limited success (Roselle, 2017).

Overall, the competing logic of how a challenger might find itself in a proxy-triggered crisis links with our observations on proxy violence (by being emboldened), discussed below. However, the focus of this paper is defender responses, rather than the challenger's intent to

get involved (or not) - and as noted earlier, data available to us does not allow assessing that intent. Still, our insights on how challenger tactics - cost saving or ally interest alignment - have worked historically can help inform their decision to use proxies in the first place.

Rather than *why* a proxy might be used, Salehyan, Gleditsch, and Cunningham (2011) address the question of *when* a patron might employ a proxy rather than take direct action. They postulate that proxy use is more likely when the threat to the patron's key national interests is not critical. O'Rourke's (2018) research on covert action also supports this line of reasoning, suggesting that proxy engagement may signal limited challenger resolve. If the cost-saving rationale for proxy usage is also true, this suggests the potential for selection effects in proxy crises: challengers use proxies to avoid fighting defenders when their resolve or national interests at stake are minimal, calculating that if the defender escalates, it will most likely be against the proxy, minimizing the challenger's risk. These selection effects may be particularly strong in cases where the challenger can reliably avoid attribution (see below).

In short, the state's choice to use a proxy actor will depend on the relationship between the costs associated with the direct action, and its ability to control the proxy. The challenge of foreign policy substitutability (Starr, 2000) is also acute, as different factors and intentions could lead to proxy use, as well as similar circumstances producing different state decisions on whether to use a proxy.

1.3. Managing Divergent Interests Through Ambiguity

Literature exploring the principal-agent dilemma notes that proxies tend to have similar, but not identical interests or normative constraints to the patron, especially when conflicts are prolonged or situations change. Proxies may prove difficult for the principal (challenger) to control. Thus, in making decisions, the challenger has to account for the relationship between its own objectives and those of the proxy actor, or actors (Fox, 2019). The study of proxies used for "illicit" objectives – including some of the cases encompassed in our data – has largely focused on state sponsorship of VNSA (see Byman and Kreps, 2010). However, the history of states employing proxies in an effort to minimize attribution and potential consequences of their national security agendas extends beyond that.

Much of the academic literature discussing proxy use during the Cold War focuses on *state* proxies engaged by the U.S. and the USSR. Research from this period shows how keeping the relationship ambivalent helped control escalation (and entrapment) risks. Klare (1989) argues that in the years following WWII much of United States foreign and security policy was based on establishing *formal* alliances as a means to counter Soviet expansion. Once these were established, and U.S. decision makers became more concerned with Soviet influence in the Third World, they shifted to leveraging *informal* and covert relationships, i.e., proxies rather than formal allies.[46] Similarly, Luttwak (1995) attributes the "culture of restraint" in the modern concept of warfare – where use of proxies to avoid costs is a prime example – to the Cold War era, during which the U.S. and USSR suppressed direct warfare within their own spheres. When conflict did occur in areas like East Asia and the Middle

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[46] Taliaferro (2019) uses the term "frenemies," rather than allies or proxies, to describe U.S. relations with states that have divergent interests. He further discusses the successful U.S. use of coercive measures to steer such frenemies towards policies most compatible with U.S. interests when the regional balance of power was favorable and time horizons lengthy.

East, the patron states were careful to keep it limited for fear of unintended escalation to nuclear warfare. Nevertheless, it is also worth noting the U.S. use of deniable *non-state* proxies during the Cold War for regime change and other covert action purposes (see, e.g., O'Rourke, 2018), again allowing the U.S. to advance its interest while avoiding a war. In fact, use of non-state proxies was an important, and pricey, aspect of U.S. military "train and equip" programs in the War on Terror (e.g., in Vietnam, Bosnia, Georgia, Iraq, Syria, Afghanistan, and Iraq).

However, a growing body of research shows the ambiguity provided by alliance vagueness is overestimated, and suggests that the use of proxies is likely to increase, rather than reduce, the risk of crisis escalation (see, e.g., Pfaff and Granfield, 2018; Benowitz and Ceccanese, 2020; Moghadam and Wyss, 2018). Schultz (2010) empirically demonstrates that use of proxies increases conflict lethality, and calls plausible deniability a myth. Mumford (2013) shows that state expectations that proxies will help them minimize the human, financial, and audience costs of going to war are rarely if ever met. This mismatch of expectations and reality has to do with three factors: (1) the different range of tools available to the actors; (2) differences in how stakes are calculated; and (3) the relative lack of normative constraints. In addition, entry of proxies into a crisis also complicates the Defender's assessment of the risk and cost of escalation or de-escalation, and therefore accentuates the danger to the international system that such situations pose.

1.4. Non-State Proxies and Crisis Escalation

Mitigating interest divergence and leveraging control over state proxies through deliberate alliance ambiguity (even minimal) might have worked during the Cold War. However, that logic seems to be reversed when it comes to the wide range of non-state proxies which are increasingly used in modern crises. Recent studies of proxy use focus on violent non-state actors (VNSAs), such as state-sponsored terrorist groups (e.g., Byman and Kreps, 2010; Byman, 2018), sub-state security forces, militias, and paramilitaries (Pettersson and Eck, 2018; Gaston and Derzsi-Horvath, 2017). Some consider an even wider range of non-state actors, such as corporations, private contractors, militant/insurgent groups, terrorist, and criminal organizations (see, e.g., Rondeaux and Sterman, 2019; Ezrow, 2017).

Typically, there is a wide difference between the coercive capabilities available to such proxies and defender states. Thus, Byman, Waxman, and Larson (1999) argue that VNSAs are more prone to escalate a conflict horizontally, i.e., to swiftly expand the range and scope of targets under attack, particularly using violence against civilian targets, and also to increase the number of stakeholders involved in the conflict. VNSAs apply this tactic because the range of vertical escalation or de-escalation tools available to them is very small, compared to state actors – very few non-state actors possess diplomatic or economic levers. As a result, sticking to only military targets would significantly limit their tactical options. Similarly, Gross (2009) notes that states enjoy such a disproportionate military advantage that violently attacking soft targets is almost all that a non-state actor can do, once a decision to engage has been made. Pfaff and Granfield (2018) argue that conflict stakes are so high for a non-state proxy that escalation to violence is their most likely action option. In crises in which proxies are involved, the survival of the proxy's, state/organization or leadership may be at stake. In addition, loss of territory or assets can have more direct or dramatic audience costs for proxies than for patrons or stronger state defenders (note the divergence not only of interest, but also of resolve). Thus, these authors argue that proxies swiftly escalating a crisis

to violence should be treated as the number one risk to weigh at the outset, rather than viewing it as one of the possible eventualities.

In this study, the term "proxy" includes non-state militias, violent non-state actors (VSNAs), or another state. Indeed, in most cases recorded by the ICB over the last 25 years, proxy actors have been non-state actors, rather than state proxies. The literature of general VNSA conflict behavior suggests that having a patron state, which can offer financial and/or political support, would embolden a proxy. The ICB data supports this notion: of the 81 proxy-initiated crises from 1963 to 2015, violence triggered the crisis in 71 cases or 87% (see Table 6.1 in section 3.1 below).

2. Research Design

The current analysis focuses exclusively on the opening moves in a crisis: the triggering act by a challenger or its proxy, and the defender's response to that act - violent or non-violent - as well as the specific tools used in the triggering act and response. It is worth noting that while much of the literature seems to equate violent involvement of proxies in a crisis with the use of indirect and covert violence, in our analysis we parse these types of violence out in different hypotheses, to be able to isolate the factors behind triggers and responses more precisely.

Figure 6.1 below offers a schematic summary of the opening crisis events we analyze. Namely, one state – the challenger – has decided to take action against another state – the defender - and engages a proxy (in most cases it is a non-state actor) to undertake that action instead of attacking the defender directly. The proxy can trigger this crisis for the defender by using either violent or non-violent means (examples of such means are listed in Figure 6.1). The defender can then respond with violent or non-violent means, against the proxy, the challenger, or both.

For example, consider the second India-Pakistan crisis over Kashmir in 1965. The challenger, Pakistan, used covert violence by a proxy to trigger a crisis: covert "freedom fighters" infiltrated the Vale of Kashmir to create a large-scale uprising; in response, the Defender, India, escalated the crisis, and responded with violence directly against the challenger – its military forces invaded Pakistan (ICB crisis #216).

Figure 6.1: Crisis Challenge and Response Model

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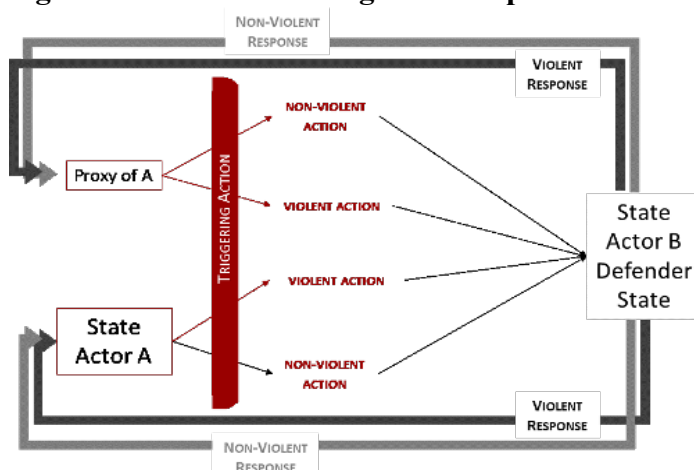
2.1 Hypotheses

When proxy action triggers a crisis for the defender, there is a need to unpack the scale of the defender's likely response. Here we briefly discuss these expectations, holding the use of violence constant, and comparing the scale of defender's response to being attacked by a proxy, as opposed to a direct attack by the proxy's patron state. In both hypotheses tested in this paper we assume the defender to be rational - that is, a unitary, utility-maximizing actor concerned with survival, while operating under conditions of uncertainty (Keohane, 1986) - with war being one of the calculated options to ensure survival (Mearsheimer, 2001). In addition, this implies defender's weighing of opponent behavior, and their response's impact upon it, as well as defender's awareness of short- and long-term consequences of their actions (Mearsheimer, 2001).

We start by looking at whether the defender might exhibit any heightened sensitivity to the use of proxy - responding differently to it than to a challenger state. On the one hand, ambiguity about who is truly triggering a crisis rarely seems to fool anyone in practice. As discussed above, the defender might be willing to respond more forcefully against the perceived proxy to signal its resolve to the presumed patron – in other words, escalate to de-escalate. On the other hand, it could be contended that a lesser response ought to be sufficient. As an adversary, the proxy is generally significantly less powerful than either the defender or the challenger (its patron), and has a lesser arsenal of violent and non-violent means available for response, compared to the defender. Thus, using less power ought to be sufficient to prevail against such an adversary. In addition, involvement of a proxy actor rather than a direct action by a challenger heightens the defender's uncertainty about the bounds of the crisis — both the challenger's ability to control the proxy, and its commitment to the proxy. Under these circumstances the defender may be expected to hedge by looking to manage the initial crisis while reducing uncertainty. This deductive logic leads to our first hypothesis:

> **H(A): Defenders in crises are more likely to respond with violence when a challenger uses a proxy, irrespective of whether or not the challenge involves violence.**

Furthermore, in an attempt to isolate the effect of using a proxy, we zero in on defender responses only to violent crises triggers. With this secondary validation we try to understand whether the key driver of defender's responses is the type of triggering act, or the actor behind it.

> **H(B): When a crisis is triggered by a violent challenge (direct, indirect, or covert), Defenders are more likely to respond with violence when the agent of violence is a challenger's proxy, rather than the challenger itself.**

2.2 Data

As noted above, the present study covers ICB crises that occurred between 1963 and 2015, thus spanning the loosely bipolar Cold War period up until 1990, and then the 25 years following the collapse of the Soviet Union.

In the ICB dataset a crisis is considered to have occurred when a state perceives three necessary and sufficient conditions: (1) a threat to basic values (security, sovereignty,

territory, national political or economic interests, etc.); (2) a finite time to respond to that threat; and (3) an increase in the likelihood of military hostilities (Brecher and Wilkenfeld, 1997).[47] Furthermore, it is important to understand the distinction between a crisis for a particular state and an international crisis, which will have at least two state actors as adversaries, and at least one of those state actors is experiencing a crisis. An international crisis may occur in the context of an ongoing protracted conflict involving the same crisis actors, or it may be a stand-alone crisis that does not recur later. It may involve military hostilities or maneuvers, or it may occur completely within the realm of diplomatic or economic interaction.

ICB records 600 foreign policy crises from 1963-2015; however, the number of cases that we analyze in this paper is actually 369 because many crises have multiple parts and actors, and not all foreign policy crisis perceivers and crisis triggering entities are defenders and challengers, respectively, according to our definitions. A crisis perceiver is only a defender if the actor is triggered without having already triggered a foreign policy crisis for another actor within the international crisis as a whole, i.e., without having already been a challenger. The actor that triggers the defender's crisis is the challenger. Importantly, in the case of a trigger by proxy, the patron of the proxy is the challenger. Also, a defender can end up being a challenger later in the same international crisis, but only if it triggers a foreign policy crisis for another actor that has not already been a challenger. We do this in order to make a clear empirical distinction among crisis roles, to avoid obfuscation of the relationships between actors, and to deal with a large potential source of endogeneity in the trigger-response dynamic.

While the vast majority of international crises are triggered by direct, state-to-state action, almost one-quarter of international crises in the ICB dataset (22%) were triggered by a state or non-state actor acting as a proxy for another state (see Table 6.1 below).

It is worth noting that though the use of proxies occurred further down the crisis timeline in a number of cases, this study is only concerned with the initial stages of a crisis: the triggering event and the defender's response to it. While we recognize that many critical events and actions occur subsequent to these early events, triggering events set the initial conditions for how a crisis may evolve, and can impact whether it will escalate. Extensive studies and game theoretical models of deterrence credibility and the significance of reputation consider the opening moves to be tone-setters, rich in signals (see, e.g., Schelling, 1960; Kreps and Wilson, 1982; Jervis, 2002) including those about potential escalation thresholds that constitute red-lines for the parties involved. For instance, Sechser (2010) suggests that a defender generally has the greatest incentive to resist the challenger's first threat, because the initial concession (i.e., a defeat or retreat) gives the defender a reputation that is likely to invite further threats in the future. Harvey and Mitton (2016) demonstrate that the significance of reputation (i.e., an actor's previous crisis behavior) is largely linked to the likeness of the crisis at hand to the examples recalled, including how close they are in terms of time and geography – with particular empirical focus on international actors learning about U.S. crisis behavior. There is also some indication (e.g., Wrights, 2017) that the early stages of a crisis are the most volatile and prone to escalation because in many cases, particularly in

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[47] An actor's narration about being in a state of crisis does not necessarily mean a mirroring sentiment by the actor's adversary. Moreover, it is not uncommon for both parties in a confrontation to describe themselves as being the victim, i.e., the defender. All of this necessitates considerable caution in chronological crisis process tracing.

non-protracted conflicts, the crisis actors do not yet have clear understandings of how their actions will be perceived by the other party.

ICB terms the two opening moves of an actor's foreign policy crisis as the "triggering act" of the crisis; and the "major response" to that triggering act conducted by the actor perceiving the foreign policy crisis. We refer to these two acts as the "challenge act", and the "defense act", respectively. Defense acts are conducted by the defender (i.e., the individual foreign policy crisis perceiver) in response to the challenge act. Challenge acts can be conducted by the challenger, which is the direct state opponent of the defender; a proxy of the challenger; or in rare cases, another party.

3. Violence at the Start of Crises

Before turning to the analysis of empirical data on challenger action and defender responses, it will be useful to get a sense of the extent to which violence is employed by actors triggering crises. Table 6.1 provides summary statistics for crises involving proxies. The data reveal that 22% of the 369 crises occurring in 1963-2015 are triggered by proxies – these are overwhelmingly non-state actors. Furthermore, while most crises are triggered by violence, a large proportion of crises are triggered by non-violent acts – 44%. There is a marked difference in the prevalence of violent challenges depending on the triggering actor. A large majority (88%) of crises triggered by proxies are violent. In contrast, in crises triggered by challengers, violence (48%) is actually less common than non-violence (52%). Taken together, these patterns reinforce the contention that understanding the roles that proxies play in interstate conflict and crises is critical as we try to unpack the most effective ways in which states should respond to crisis triggers.

Table 6.1: Summary of Crisis Triggers by Type and Source of Challenge

	Count	Percent of Total (*n*=369)
Type of Challenge		
Non-Violent	161	43.63%
Violent	208	56.37%
Source of Challenge		
Challenger (non-proxy) acts itself	288	78.05%
Challenger using proxy	81	21.95%
Type of Challenge by Source of Challenge		
Challenger engages in non-violent act	151	40.92%
Challenger uses proxy, proxy engages in non-violent act	10	2.71%
Challenger engages in violent act	137	37.13%
Challenger uses proxy, proxy engages in violent act	71	19.24%
Total	369	100.00%

The type of defender response also differs by the type of crisis trigger (see Table 2.6). In general, defenders employ non-violent and violent responses at the same rate. Non-violence is the most common response to a non-violent challenge (70%), and violence is the most common response to a violent challenge (65%). A clearer understanding of deviations from this "matching" behavior, by separating challengers from proxies, is a key objective of this study.

Table 6.2: Summary of Defender Responses – Overall and by Type of Challenge

	Count	Percent of Total (*n*=369)
Type of Response		
Non-Violent	186	50.41%
Violent	183	49.59%
Type of Response by Type of Challenge		
Non-Violent Response to Non-Violent Challenge	113	30.62%
Non-Violent Response to Violent Challenge	73	19.78%
Violent Response to Non-Violent Challenge	48	13.01%
Violent Response to Violent Challenge	135	36.59%
Total	369	100.00%

The prevalence of defender matching behavior does vary depending on who is triggering the crisis. Figure 6.2 demonstrates that matching behavior is the most common defender response to both proxy and challenger triggers. However, defenders are more likely to respond in a violent manner to proxy-triggered crises than challenger-triggered crises. We see this in two ways. First, in response to non-violent triggers, defenders will engage in a non-matching, violent response more often when the non-violent trigger is an act by a proxy (50%) rather than a challenger (28%). Second, while defenders will match violent proxy challenges 79% of the time, they match challenger violence at a lower rate (58%). In fact, more than 4-in-10 violent challenge acts are met with non-matching, non-violent responses by defenders. These data seem to indicate greater defender hesitancy to respond violently to state actor challengers than their proxies (which are usually non-state actors). Overall then, the data presented in Tables 6.1 and 6.2 reveal a pattern of consistent violent escalation on the part of defenders when crises are initiated by proxies rather than by challengers directly.[48]

Figure 6.2: Summary of Defender Responses by Type and Source of Challenge

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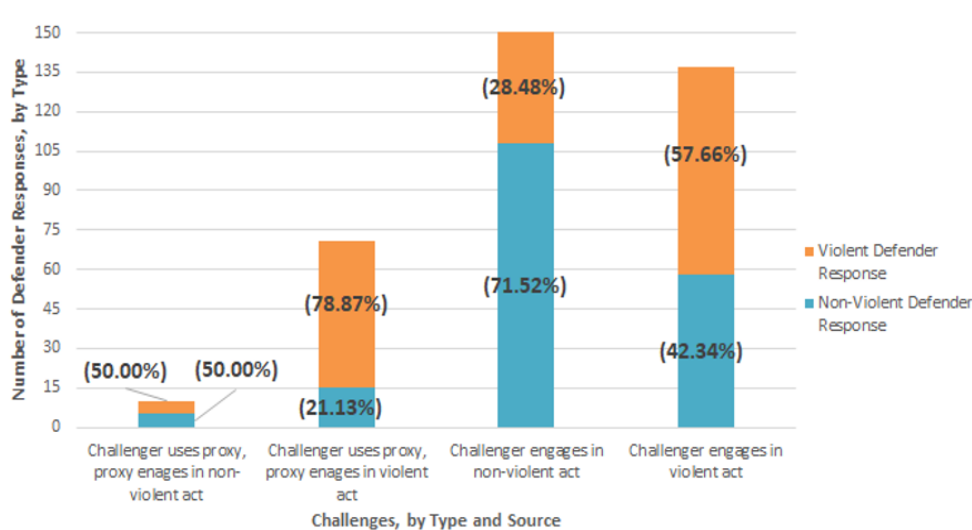
[48] For additional elaboration on the ICB concept of escalation, de-escalation, and matching behavior, see Murauskaite et al., 2021.

4. Methodology

As already noted, for purposes of the analyses to follow, we assess the nature of both the triggering act of a crisis, and the response to it. In order to test H(A) and H(B) outlined above, we collected additional data on the initial actions of challengers and defenders in all international crises between 1963 and 2015. We created a five-category variable measuring the type of the challenge act:

      (1) Non-violent, proxy-initiated, triggering act;
      (2) Non-violent, challenger-initiated, triggering act;
      (3) Direct or indirect, violent, proxy-initiated, triggering act;
      (4) Direct or indirect, violent, challenger-initiated, triggering act;
      (5) Acts by neither proxies nor challengers (non-proxy non- state actors, allies, and other non-adversarial states).

The cases in category 5 were excluded from the analysis mainly because there is no "challenge" in the sense of an adversarial state triggering a crisis for the defender. We also created a variable measuring the type of defender response. It largely mirrors the variable measuring the type of challenger trigger, with the addition of another category measuring cases of "no response" on the part of the defender, which is one possible response coded by ICB.

4.1 Dependent Variable

To test Hypotheses A and B, we use a dichotomous indicator of whether or not a defender responded violently to the crisis trigger (i.e., the challenge that it faced) as the dependent variable. A violent response is defined to include both direct violence (overt or covert) committed against the challenger by the defender[49], and indirect violence committed by the defender against a proxy of the challenger or a third party. To identify such cases, we used a combination of the variable measuring the defense act (discussed earlier) and a separate variable measuring violence used as part of the defense act. The latter is a four-point indicator that includes a category for no violence at the low end followed by three violence intensity levels. Any case *not* coded "no violence" for this variable is considered violent, regardless of the intensity of the violence. Since we were only interested in cases where a defender used violence, those in which the defender used its proxy to conduct an attack were coded as non-violent. Other cases coded as non-violent are those in which the defender used non-violent tactics, did not respond to the challenge at all ("no response"), or used a proxy to respond to the challenger and this proxy used non-violent tactics.

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[49] The authors are aware that grouping 'covert' actions with overt ones may raise questions about the introduction of another variable: attribution. The decision to lump them together was made after a close, case-by-case review of all of the 14 crises with violent covert triggers in the ICB dataset. In each of these cases, while the means employed for the trigger were technically 'deniable' (and therefore covert), nonetheless, in each case it would have been obvious to the defender who the underlying challenger was. Therefore, the authors chose to treat them as equivalent to overt violence in terms of defender responses. This question might be explored in greater depth with the subject of public perception by the defender as the topic, but given the small *n* of these data, and the focus of the paper, it seemed appropriate to leave that question aside and categorize them as was done.

4.2 Independent Variables

To test Hypothesis A, we created a dichotomous indicator of the source of the challenge act, with one category for non-proxy challenger states and one for proxies of challenger states. This yields an *n* of 342 for testing Hypothesis A. In the small number of cases where proxies and challengers act together in the triggering act, the case is always coded as an act perpetrated by the challenger since in all of these cases, the challenger state was viewed as the more serious threat by the defender according to the ICB variable that measures the primary source of threat for the defender.[50]

To assess Hypothesis B, we select only those cases where violence is used by a challenger or a proxy of a challenger in the crisis trigger. To identify such cases, we use a combination of the variable measuring the challenge act (discussed earlier) and a separate variable measuring violence used as part of the challenge act, which runs parallel to the one for defense acts described in the previous paragraph. Violence in the challenge act is defined to include both direct violence (overt or covert) committed against the defender and indirect violence committed against a proxy of the defender or another adversarial, non-proxy state actor, typically an ally of the defender.[51] This yields an *n* of 190 for the Hypothesis B test. To test Hypothesis B, we code a dichotomous indicator of the source of violence in the challenge act, with one category for non-proxy challenger states and one for proxies of challenger states. Proxies are either non-state or state actors. In the small number of cases where proxies and challengers both use violence in the triggering act, the case is coded as violence on the part of the challenger.[52]

4.3 Control Variables

Regime Type. We control for a number of variables that are projected to have an influence on defender acts in response to challenges. First, we control for the regime of the defender by using POLITY2 scores from the 2017 version of the Polity project's Annual Time-Series dataset (Marshall, Gurr, and Jaggers, 2017). States with higher scores on the POLITY2 scale are more democratic, and those with lower scores are more autocratic. The democratic peace research would predict that democratic states are less likely to use violence against other democracies. However, research on the effect of the defender regime in particular is sparse, and there is some evidence to contradict the base reading of democratic peace theory (see, e.g., Bakker, 2018; Deck and Sheremeta, 2012; Hermann and Kegley, 1996). In a previous study, we found evidence that challenger regime has a more complicated, curvilinear effect on defender responses (Murauskaite et al., 2021).

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[50] There are six cases where proxies are coded as challengers: North and South Yemen in the North/South Yemen II crisis in 1979, Grenada in the Invasion of Grenada crisis in 1983, Ethiopia in the Ethiopia/Sudan Tension crisis in 1983, and Laos in the two Three Village Border crises with Thailand in 1984 and 1987. In each of these cases, the patron(s) of these states were uninvolved in the triggering act and the proxies were viewed as the primary sources of threat by the defenders.

[51] Defenders respond similarly to direct and indirect violent challenges. Defenders respond violently to 78% of direct violent challenges from proxies, and to 82% of indirect violent challenges from proxies. They respond violently to 57% of direct violent triggers from challengers, and to 63% of indirect violent triggers from challengers. There are only 30 indirect violent challenges in our sample, making multivariate analysis of the indirect sub-sample nonviable. Exploratory analyses comparing direct violent challenges to direct and indirect challenges combined yielded similar results.

[52] There are several cases where non-proxy, non-state actors triggered a crisis for a defender. These cases were dropped from the analysis.

Power Disparity. We control for the degree and direction of power disparity between the defender and challenger. We utilize data from version 5.0 of the Correlates of War project's National Material Capabilities (NMC) dataset (Singer, Bremer, and Stuckey, 1972), which covers the 1816-2012 time period, to create a new index of power disparity between defender and challenger. We extended NMC data to 2015, using the NMC codebook and the sources identified therein to collect this data ourselves. For all six components of NMC, we calculated the difference between the individual values in an adversarial pair for each actor observation in the ICB actor-level dataset, i.e., for each challenger and defender that perceives a crisis. We then divided that difference by the values of the crisis perceiver/observation in order to derive a proportional power differential scaled to the crisis perceiver. We then grouped those differences into quintiles and used an Itemized Response Theory (IRT) Graded model to create an index of power disparity between the crisis perceiver and its crisis trigger adversary.[53] Because not all cases in the ICB dataset involve reciprocal crisis perception and trigger adversaries, Power disparity scores do not always mirror one another for adversarial pairs consisting of defenders and challengers where both perceive a crisis. Hence, for an adversarial pair, we defined the final power disparity score as the maximum of the absolute values of the individual adversaries in the pair. The resulting power disparity index ranges from 0.0056417 at its low end to 1.650469 at its high end, with larger values indicating greater disparity. We defined any case where the power disparity index was less than or equal to 0.5 as a case of power parity – i.e., the defender and its challenger were "near-peers" – and any case where the index was over 0.5 as a case of power disparity/non-near peers. We also include an indicator of whether the defender was less or more powerful than its challenger, based on the raw proportional power differentials (i.e., before the pairwise "fix" was implemented). We expect that defenders in near-peer relationships with their challengers will be less prone to use violence because they will have a lower likelihood of achieving a definitive victory on the battlefield. We also expect more powerful defenders to be more prone to use violence due to their greater capabilities to mount an attack.[54]

State Capacity. We also control for the state capacity of both the defender and the challenger. Whereas the NMC-derived variables described in the previous paragraph measure relative power of the defender vis-à-vis the challenger, state capacity here refers to the internal capacity of a state to maintain law and order, deliver goods to meet the needs of its population, and effectively administer its territory (among other aspects). We use a latent indicator of state capacity, indicating whether a particular state is a weak or a strong one. This indicator is drawn from a State Capacity Dataset developed Hanson and Sigman (2020), where the data is pooled on 21 different indicators related to three dimensions of state capacity – extractive capacity, coercive capacity, and administrative capacity – and a latent indicator is estimated using a Bayesian Markov-Chain Monte Carlo technique.[55] In

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[53] An IRT Graded Response Model is valuable because it is able to weight the component variables of an index according to which ones are most able to distinguish the observations from one another, and it is able to handle some missing data on components.

[54] The power disparity between a defender and the challenger's proxy also likely plays a role in the Defender's propensity for violent retaliation against the proxy. However, this factor is not captured in our statistical models because a large majority of proxies in ICB cases are non-state actors (78 out of 81 proxy challenge cases), and we lack a comparable plug-and-play composite measure of power disparity between defenders and challenger proxies.

[55] We feel confident employing Hanson and Sigman's (2020) latent indicator because it correlates highly (r = 0.7923) with an often-used measure of state capacity that we employed in a previous iteration of this paper covering the 1990-2015 period: tax-to-GDP ratio. Furthermore, the latent indicator has significant added benefits over the tax-to-GDP ratio measure: it covers a larger geographic area, is better equipped to handle

determining a state's propensity to use violence, its internal cohesiveness measure - captured by this composite - has a significant bearing on its ability to do so. Indeed, while the propositions behind democratic peace theory are well studied, there has been a lasting academic debate as to whether economic growth might actually be the underlying enabler of democratization – and thus the key factor determining state behavior, or if it is the other way around (see, e.g., Heo and Tan, 2001). Murauskaite et al (2021) have found that state capacity was more important in determining its willingness to use violence, compared to the regime type of a state.

Gravity of Threat. An additional control variable is gravity of threat perceived by the defender; a dichotomous measure drawn from the ICB dataset. The original ICB measure is a seven-point indicator of perceived severity of threat. We recoded all cases where the perceived threat was unquestioningly very high—threat of grave damage or threat to existence—as one category and all other types of threats in the other category. High levels of perceived threat increase the stakes and as a result can lead defenders to respond more aggressively and escalate in countering those threats.

Protracted Conflict. We also control for two attributes of the interaction between defenders and challengers, i.e., of the overall international crisis between the two sides. First, we control for whether or not the crisis is part of a protracted conflict; a dichotomous measure drawn from the ICB dataset. Protracted conflicts are highly intractable and tend to be marked by a history of failed peace efforts. Using ICB data for 1918-2013, Colaresi, Raisler, and Thompson (2008) and Brecher (2016) both find that crises in a protracted conflict are more violence-prone.

Ethnic Conflict. Second, we control for whether or not a crisis is ethnicity driven, another dichotomous indicator drawn from the ICB dataset. Crises in which identity plays a dominant role tend to be characterized by higher stakes, less divisible issues, and higher levels of mistrust. Adversaries in both protracted and ethnic conflicts tend to have hardened, embedded, and negative views of one another's intentions. This should increase the probability of more hostile defender actions, disproportionate reactions, and escalation.

Period. Finally, we include a variable measuring the period in which the crisis occurs, using a dichotomous indicator of whether the crisis occurred during the Cold War (prior to 1989) or post-Cold War (1990-2015) periods. We do this to control for the possibility of differences in escalation patterns attributable to differences in power and security arrangements in the international system, from a time of relative bipolarity (Cold War) to a time of relative unipolarity with the U.S. as the dominant superpower (1990-2015).[56]

4.4 Statistical Models

We use binary logistic regression models to assess our hypotheses about defender violence.

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missing data on some of the component indicators (which in turn improves its geographic coverage), and covers a longer time period (1960-2015).

[56] We also ran an alternative model in which we included a trichotomous indicator of time period, disaggregating the post-Cold War period into two distinct periods: one in which the U.S. was the unparalleled superpower and enforcer of international security (1990-2001) and one in which U.S. hegemony has declined and a less centralized international security apparatus exists (2002-2015). This trichotomous indicator of time period did not have a significant effect on defender violence.

Given that international crises typically consist of multiple actors that are experiencing foreign policy crises, it is necessary to statistically account for the interrelatedness among actors and actions. We do so in three ways: (1) by defining crisis "roles" in a more strict manner, excluding from the analysis cases in which a defender turns around and triggers a crisis for its challenger (as outlined in the Research Design section above); (2) by classifying each observed act exclusively as a challenge or defense act, excluding from the analysis cases in which a defender's major response (i.e., defense act) doubles as a challenge that triggers a crisis for a third actor that is not its challenger; and (3) by reporting clustered robust standard errors rather than regular standard errors, to account for any heteroskedasticity in the models. We cluster standard errors by the international crisis as defined by the ICB variable CRISNO. There are a total of 254 clusters in the data for the analysis of Hypothesis A, and 149 for the smaller sample of violent challenges only used to test Hypothesis B.

For ease of interpretation, the results are discussed by calculating the predicted probability of observing a particular value of the dependent variable, given a specific value or values of the independent variable(s) of concern. All other variables are held constant at their individual average effects. The -margins- command in Stata was used to generate the reported probabilities. See Appendix A for full details on the results of the statistical models that are described in the following section.

5. Results

5.1 Main Results

H(A): Defenders in crises are more likely to respond with violence when a challenger uses a proxy, irrespective of whether or not the challenge involves violence.

We find support for this hypothesis. The probability of a defender responding with violence is 0.2270 higher when a challenger uses a proxy rather than confronting the defender (see Figure 6.3).[57]

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[57] Because a large majority of cases in which challengers use proxies are violent, we had initial concerns about both the explanatory value of proxy usage and its collinearity with challenger violence. However, variable inflation factor diagnostics reveal low levels of collinearity between the measures of proxy usage and violence in the challenge, with VIF values slightly above one and tolerances in the 0.8 range. We also assessed the degree to which proxy usage in the challenge adds value to our understanding of what causes defender violence above and beyond what violence in the challenge contributes to that understanding. We compared the goodness of fit of the model with proxy usage included to a model with proxy usage excluded. The model with proxy usage has a 6.16 larger Wald Chi-Square value, an 9.72 smaller Akaike Information Criterion (AIC) value, and a 5.88 smaller Bayesian Information Criterion (BIC) value than the model without proxy usage. Each of these values indicates at least a moderate increase in explanatory value of a model that includes proxy usage. The moderately smaller BIC value is particularly illuminating because BIC penalizes the model to a greater degree for each additional indicator used in the model. BIC is also good to consider when there is a potential false positive (Williams 2020), an issue of concern for the measure of proxy usage.

Figure 6.3: Impact of Source of Challenge on Defender's Violent Response
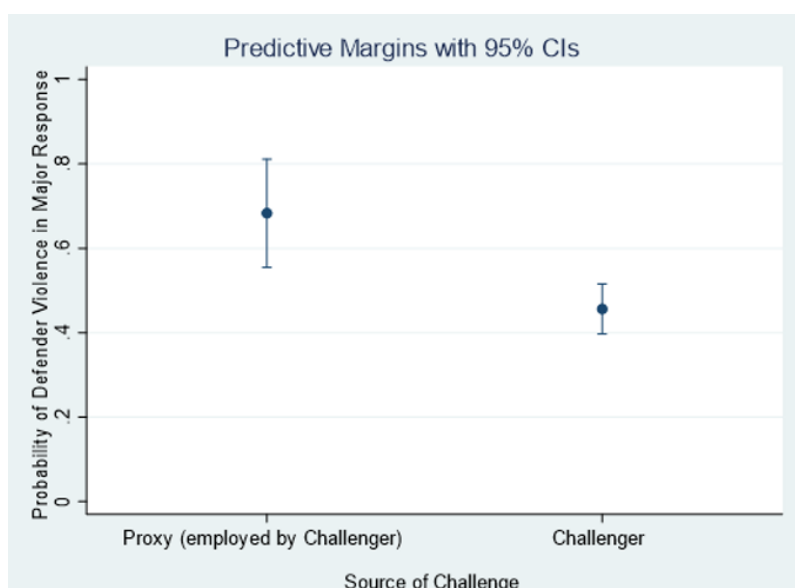
The greater use of violence by defenders when a crisis is initiated by a proxy, rather than directly by a challenger state, could potentially be explained as a combination of two factors. First, since proxies are overwhelmingly non-state actors (78 out of 81 in this data set) and therefore are likely to have a limited range of actions available to them, appropriate responses to their provocations may also be limited in range, with violence likely to convey the most direct signal of seriousness by the defender. Second, defender states may view non-state proxies as not enjoying the policy, normative, and legal protections afforded to states, and might be reluctant to confer upon them any degree of legitimacy by virtue of engaging in non-violent conflict management responses.

Some of the control variables also have an effect on defender violence. Consistent with expectations, defenders are much more likely to use violence when the challenge is violent (tit-for-tat). Defenders are also more likely to use violence in ethnically-driven crises. Such cases are often typified by situations in which an ethnic group is present in the territory of both the challenger and defender. In addition, state capacity plays a role in defender decisions, with defenders more likely to use violence against weak state challengers. These findings on state capacity suggest that defenders perceive a lower likelihood of experiencing a counterattack by the challenger, or perhaps a chance for exploiting the internal divisions plaguing the weak challenger state and thus gaining advantage. Defenders are also more likely to use violence when the crisis is part of a protracted conflict. Finally, there is evidence approaching statistical significance that defenders are more likely to use violence when they themselves are strong states ($p = 0.072$).[58]

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[58] Regime type of the challenger has an indeterminate effect on defender violence. Murauskaite et al. (2021) found that defenders are more likely to *escalate* against anocratic challengers than both institutionalized autocratic and institutionalized democratic challengers. Hence, we ran an additional model in which we evaluated potential curvilinear effects of the challenger regime. We found evidence approaching statistical significance that defenders are more likely to use violence against anocratic challengers than institutionalized autocratic challengers and no statistically significant difference between anocratic challengers and institutionalized democratic challengers. Challenger regime type has less of an influence on defender *violence* than it does on defender *escalation*.

H(B): When a crisis is triggered by a violent challenge (direct, indirect, or covert), defenders are more likely to respond with violence when the agent of violence is a challenger's proxy, rather than the challenger itself.

We find support for this hypothesis. The probability of defenders responding with violence is 0.1794 higher when a violent crisis is triggered by a challenger's proxy rather than by the Challenger itself (see Figure 6.4).

Figure 6.4: Impact of Source of Violent Challenge on Defender's Violent Response
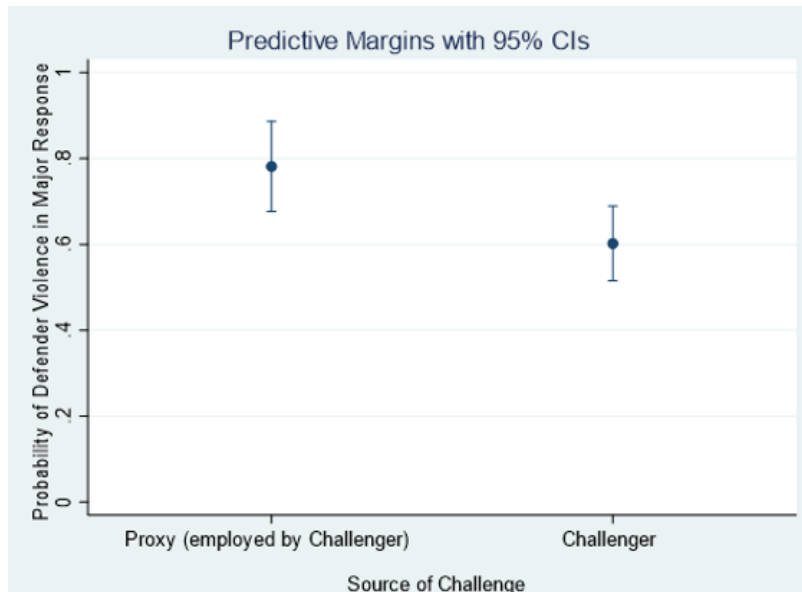
In terms of control variables, defender violence is significantly more likely when ethnic issues are central to the violently triggered crisis. There is also some evidence approaching statistical significance that defenders are more likely to use violence when they experience a violent challenge by a weak state. Both of these effects are similar to those for H(A) discussed above.

Reflecting on how the results for H(A) compare to those for H(B), it is clear that both challenger use of a proxy, and use of violence in the challenge have an effect on the likelihood of defender violence. Defenders are more likely to respond with violence when challengers use a proxy rather than confronting the defender themselves. In addition, the pull to reciprocate violence is strong for defenders. Ethnicity also plays a strong role in inciting defender violence.

The combined findings for our hypotheses suggest that the literature on cost avoidance needs qualifiers. Violent escalation is actually the most common outcome of proxy crises, increasing the risk of spiraling or undesirable horizontal expansion of the combat field for actors seeking to avoid being drawn into conflicts by using proxies. This appears to be particularly true in the case of non-state actor proxies, which comprise a large majority of proxy cases in our study and who tend to have fewer non-military options available to them. Nevertheless, the alliance entrapment argument might be overstated: the actual willingness of sponsor states to take part in these spiraling conflicts is not possible to prove or disprove with the data available to us - this remains a promising avenue for future research.

5.2 The Nexus of Proxy Use and Gray Zone

Proxy use is commonly identified as a gray zone tactic. In fact, it was a prime gray zone tactic in our dataset: challenges involving proxy use comprise 68% of all gray zone challenges. With this in mind, we ran several alternative models. First, we substituted an indicator of gray zone challenge for the measure of proxy use in the challenge. Cases in which a gray zone challenge was used are coded 1, and non-gray zone challenges are coded 0. The gray zone challenge indicator behaves similarly to the proxy use indicator in this model. Second, we added the gray zone challenge measure to a model also containing proxy use in the challenge. Unsurprisingly, in the sample of violent challenges, variable inflation factor diagnostics revealed high levels of collinearity between the measures of proxy use and gray zone challenge, with VIF values above 5 and tolerances below 0.2. Thus, since a large majority (68%) of gray zone challenges involve proxy use, and proxies use violence 88% of the time, we have concluded that the measures of gray zone challenge and proxy use are empirical approximations for one another in the sample of violent challenges.

Nevertheless, there is an important takeaway about proxy use that emerges from this supplemental analysis: the specifically gray zone benefits of proxy use, particularly the challenger's ability to minimize attribution and obscure its intentions, may be the key factors to explaining why a challenger would seek to use a proxy – potentially more significant than cost minimization.

In the full sample that includes non-violent cases, the gray zone measure does not have a significant effect on violent defender responses (H(A)), and collinearity between our indicators of gray zone and proxy use is less of an issue, with VIF values below 3 and tolerances above 0.3. Inclusion of an indicator of gray zone in this model has very little effect on the performances of other variables in these models, including proxy use. See Appendix B for full details on the results of supplemental statistical models regarding proxy usage and gray zone that are described in this section.

Conclusions

At the outset of this study, we noted that while direct war between state actors is less frequent, gray zone conflict, including the use of proxies, is increasing in frequency. Against this backdrop, we have explored empirically the impact of proxy involvement and the incidence of violence during international crises. Our analysis is based on 369 ICB cases over the period from 1963 to 2015, augmenting the original ICB crisis data with additional variables on proxy use and defender responses. We have focused on the opening moves of a crisis, rather than its entire development, recognizing the importance of early signaling for the overall ability of the parties involved to subsequently manage escalation. Our in-depth analysis of defender responses – rather than the common approach of focusing on the initial attack – offers new insights for states facing adversary proxies in crises. Our analysis has produced the following key findings, paving the way for future research.

The most significant finding of this study is that in a crisis setting, the defender is more likely to respond with violence when challenged by a proxy – *regardless of whether or not the initial challenge was violent*. Furthermore, we have found that state capacity plays a significant role in how defenders respond: they are more likely to use violence against weaker challengers, particularly when defenders enjoy strong state capacity (regardless of the

difference in power between the challenger and the defender). And finally, we find that the gray zone qualities of proxy use, particularly the challenger's ability to minimize attribution and obscure its intentions, may be key to explaining why a challenger is more likely to use a proxy. In addition, our findings suggest that the use of violence is more likely in ethnicity driven crises – likely involving higher stakes to all parties.

This suggests that the use of proxies is likely to increase the probability of violence in a crisis. The ICB data has also shown that the vast majority of proxies are non-state actors, and that they are much more likely to use violence when triggering a crisis, compared to their sponsor state challengers. Their propensity to trigger crises with violence can be explained both by their limited means and their lack of constraints. Thus, because the decision to use a proxy largely means employing a violent non-state actor, and because defenders are more likely to respond to proxies with violence, the decision to use a proxy virtually guarantees that the crisis will turn violent from the outset. This may mean that, contrary to popular belief, by employing a proxy the patron state decision-makers are limiting their options to manage escalation.

The findings from this study are reasonably generalizable. The study covers an extended period of time, including the Cold War use of proxies by the superpowers. It also accounts for the use of both state and non-state actor proxies. Nevertheless, our study partially focuses on the two opening moves in a crisis: how the challenger or its proxy acts against the defender, and how the defender responds to that challenge. One area of future research would be to look at the subsequent moves in the chain of events and ask: does a challenger continue to "lay low" after a defender attacks its proxy, in line with cost-saving assumptions about why a challenger uses a proxy in the first place, or does it get drawn into the conflict offensively? Furthermore, in cases of eventual challenger involvement, it would be interesting to look at available primary source documents to better understand the validity of alliance entrapment arguments - namely, if all along the intent was to go against the defender at any price, or whether the sponsor state found itself sucked into a crisis suddenly and unexpectedly.

Furthermore, this study shows that defenders tend to engage in matching behavior when triggered with violence, particularly when a proxy initiates violence against the defender. An attribute of the setting in which the crisis occurs – a backdrop of ethnic tension – offers some explanation for this propensity, but the characteristics of the defender in our statistical models add little to our understanding of why defenders engage in matching behavior. Future research should focus on whether or not characteristics of proxies such as their power vis-a-vis the defender influence the propensity for defender matching behavior.

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Appendix A: Statistical Tables for Main Results (Section 6.1)

Appendix Table A.6.1 Binary Logit Model of Defender Violence in Response to All Challenges

Source of Challenge: Proxy vs. Challenger	-1.236*** (0.425)
Challenger Regime Score	0.035 (0.026)
Challenger State Capacity	-0.673*** (0.243)
Defender Regime Score	-0.023 (0.024)
Defender State Capacity	0.422* (0.235)
Defender-Challenger Relative Power Relations: Near-Peers	-0.256 (0.301)
Direction of Defender-Challenger Relative Power Relations	-0.110 (0.291)
Ethnic-Driven Crisis	1.605*** (0.454)
Protracted Conflict	0.643** (0.303)
Period/Polarity	0.375 (0.356)
Gravity of Threat	0.393 (0.429)
Violent Challenge	1.576*** (0.333)
Constant	-0.751 (0.538)
N	342
df	12
Number of Clusters (International Crises)	254
LR Chi-square	71.50***
*p≤0.1; **p≤0.05; ***p≤0.01	

Appendix Table A.6.2 Binary Logit Model of Defender Violence in Response to Violent Challenges

Source of Challenge: Proxy vs. Challenger	-0.973** (0.421)
Challenger Regime Score	0.047 (0.037)
Challenger State Capacity	-0.544* (0.334)
Defender Regime Score	-0.052 (0.034)
Defender State Capacity	0.365 (0.276)
Defender-Challenger Relative Power Relations: Near-Peers	-0.050 (0.387)
Direction of Defender-Challenger Relative Power Relations	-0.039 (0.371)
Ethnic-Driven Crisis	1.745*** (0.600)
Protracted Conflict	0.432 (0.402)
Period/Polarity	0.824 (0.550)
Gravity of Threat	0.218 (0.624)
Constant	0.740 (0.549)
N	190
df	11
Number of Clusters (International Crises)	149
LR Chi-square	30.27***
*p≤0.1; **p≤0.05; ***p≤0.01	

Appendix B: Statistical Tables for Supplemental Analyses of Proxy Use and Gray Zone (Section 6.2)

Appendix Table B.6.1 Binary Logit Model of Defender Violence in Response to All Challenges: Source of Challenge and Gray Zone Both Included

Source of Challenge: Proxy vs. Challenger	-1.916*** (0.644)
Gray Zone Crisis	-0.764 (0.516)
Challenger Regime Score	0.028 (0.026)
Challenger State Capacity	-0.649*** (0.241)
Defender Regime Score	-0.019 (0.024)
Defender State Capacity	0.407* (0.232)
Defender-Challenger Relative Power Relations: Near-Peers	-0.252 (0.302)
Direction of Defender-Challenger Relative Power Relations	-0.075 (0.297)
Ethnic-Driven Crisis	1.527*** (0.434)
Protracted Conflict	0.628** (0.302)
Period/Polarity	0.465 (0.369)
Gravity of Threat	0.423 (0.434)
Violent Challenge	1.538*** (0.329)
Constant	0.032 (0.714)
N	342
df	13
Number of Clusters (International Crises)	254
LR Chi-square	72..36***
*p≤0.1; **p≤0.05; ***p≤0.01	

Appendix Table B.6.2 Binary Logit Model of Defender Violence in Response to Violent Challenges: Gray Zone Substituted for Source of Challenge

Gray Zone Crisis	0.519 (0.404)
Challenger Regime Score	0.043 (0.037)
Challenger State Capacity	-0.561* (0.329)
Defender Regime Score	-0.051 (0.033)
Defender State Capacity	0.312 (0.274)
Defender-Challenger Relative Power Relations: Near-Peers	0.029 (0.381)
Direction of Defender-Challenger Relative Power Relations	-0.073 (0.372)
Ethnic-Driven Crisis	1.854*** (0.597)
Protracted Conflict	0.392 (0.407)
Period/Polarity	0.806 (0.533)
Gravity of Threat	0.161 (0.601)
Constant	-0.100 (0.552)
N	190
df	11
Number of Clusters (International Crises)	149
LR Chi-square	29.18***
*p≤0.1; **p≤0.05; ***p≤0.01	

Chapter 7: Foreign policy attitudes and national alignments in times of Chinese and Russian threats: Public opinion across three NATO members

Catarina P. Thomson[59]

Introduction

The lack of coordination among allies withdrawing from Afghanistan in August 2021 has provided a graphic representation of fractures in important institutional bonds that have previously helped the United States (U.S.) and European allies jointly face difficult foreign policy challenges. An American President has publicly wavered on American commitment to NATO and allied European defence; the United Kingdom (UK) has left the European Union (EU). These events are perhaps the endpoint of a post-Cold War evolution where NATO allies no longer share a completely congruent understanding of the threats they face individually and collectively. Member states have different geopolitical considerations and potentially diverging preferences over what organizations to rely on or what nations to side with in times of crises.

As noted by Larsen (2021), NATO currently faces heightened threats such as Russian regional territorial incursions, or China's increasing assertiveness on the global stage. Are member states as diverse as the U.S., the UK and a former Soviet state like Lithuania equally threatened by these rising global challengers? When it comes to preferred responses to such threats, are citizens across these states equally prone to prefer multilateral responses? Or are some inclined to favour their country's taking unilateral action or indeed take an isolationist stance?

In times of rising nationalist sentiments and a lack of ideological unity between the U.S. and Europe, Krastev and Leonard (2021) suggest European states may attempt to project their sovereign power by openly disagreeing with traditional partners. Public opinion across EU member states is clear- the U.S. is no longer viewed as an unquestionable ally, even against Russia or China (Dennison 2019). Europeans are increasingly viewing the world as one in which ad-hoc "necessary partners" replace the fixed alliances of the past (Dennison and Puglierin 2021). If sovereignty is indeed perceived as non-alignment, who are citizens of the U.S., UK, and Lithuania inclined to side with when choices include the EU, China and the U.S.? Furthermore, what factors influence individual-alignment preferences? Do individual-level multilateral, unilateral, isolationist attitudes, or an inclination to support diplomacy instead of use of force affect which key international actors citizens prefer to side with? It isn't just relations between nations that are fraying- recent events such as the 48%-52% result of the so-called Brexit referendum have brought home just how divided public opinion regarding key questions of national orientation can be.

Here we address these questions with findings from the Gray Zone Security Survey on threat perceptions, based on the International Crisis Behavior (ICB) database. This widely used

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database includes information on over 150 variables for 485 international crises between 1918 and 2016 and the 1,000+ country-actors that became involved in these crises (Brecher and Wilkenfeld 1997, Brecher et al. 2021). Among the most extensively studied ICB variables are those with information on crisis triggers, threat perception, and crisis response. These variables were the basis for the development of threat perception and response items included in the Gray Zone Security Survey.

The Gray Zone Security Survey was launched in the U.S., the UK and Lithuania in March of 2021. In the U.S. and the UK it was fielded by YouGov, and by Spinter in Lithuania, with sample sizes of 4,000 in the U.S., 1,300 in the UK, and 1,000 in Lithuania. The countries were selected to represent, to the best possible extent, the full typological spectrum of NATO member states: two powerful founding members, as well as an Eastern European member that has been particularly active in U.S.-led military campaigns. Lithuania has been the most prominent advocate for NATO's greater military presence at its Eastern border, as well as a vocal watch-dog on Russia's evolving gray zone tactics. In the months since the survey was fielded Lithuania has also taken harsh steps against Chinese strategic plans for the region. They withdrew from the 17+1 summit between Eastern European countries and China (Lua 2021), have taken a clear stance against Chinese technology firms (Dapkus 2021), and have officially welcomed a trade representation from Taiwan (named as such) instead of following the tradition of naming such delegations as 'Taipei' ones to avoid Chinese ire (Galbraith 2021).

1.   Where are China and Russia Considered Critical Threats?

We asked citizens across the three NATO member states how critical a threat to the security of their country Russia's territorial ambitions and the development of China as a world power were. Items were measured using a 7-point scale, varying from 1 (not a threat at all), to 7 (critical threat). Table 7.1 below depicts the percentages of individuals across each country who classified Russia's territorial ambitions as corresponding to options on this scale. Immediately we can see that the situation is considered a critical threat for more people in Lithuania than in the other two countries- a third label Russian territorial ambitions as belonging to the highest threat category (compared to just 2 in ten U.S. respondents, and 12% in the UK). More than half of the Lithuanian sample consider Russian territorial ambitions as belonging to the two highest threat categories (52%, relative to 38% in the U.S. and just 27% in the UK). About half of American respondents classify the Russian threat as belonging to one of the three mid-point options (53% assign it a value of between 3 and 5), as do 6 in ten of British respondents (63% chose between 3 and 5). The proportion of Lithuanian respondents who selected mid-point categories is lower (at 38%). Respondents who consider Russian territorial ambitions are not posing much of a threat at all remain low across the board.

Table 7.1: Russia's territorial ambitions as threat

	U.S.	UK	Lithuania
1-No threat at all	4%	4%	6%
2	5%	7%	5%
3	9%	13%	6%
4 (midpoint)	19%	25%	13%

5	25%	25%	19%
6	17%	15%	19%
7-Critical threat	21%	12%	33%

As seen in Table 7.2, Americans are as threatened by the development of China as a world power as Lithuanians are regarding Russia's territorial ambitions. Half (51%) classify China's rise as a world power as being in the top two highest threat categories, with just over a third regarding it as the most critical threat level. Only 37% of respondents in the UK and 32% in Lithuania consider China's assent to world power as being at such high threat levels. Instead, a majority of respondents in both countries (57%) classify the development of China as world power as belonging to threat categories closer to the mid-point of the scale.

Table 7.2: The development of China as world power as threat

	U.S.	UK	Lithuania
1-No threat at all	3%	2%	5%
2	4%	4%	6%
3	7%	11%	11%
4 (midpoint)	16%	22%	21%
5	20%	24%	25%
6	17%	17%	20%
7-Critical threat	34%	20%	12%

In sum, geopolitical considerations matter- China's development as a world power and Russia's territorial ambitions are considered critical threats, but not equally for citizens in the three sample countries. It shouldn't prove surprising to learn that citizens of a former Soviet state consider Russian expansionism as a critical threat. The more interesting question is perhaps why citizens in the UK are not terribly threatened. Despite UK military leadership highlighting the dangers of an assertive Russia, it seems the message isn't getting through to the general population. The higher degree of concern among American citizens might relate to their position as a global –instead of a regional– power. U.S. citizens are also quite threatened by China's rise as a global power, after all it is their own international position that might be challenged. Individuals in the UK and Lithuania, on the other hand, don't tend to consider China's development as a global power a critical threat. This discrepancy between American and British threat perception might be especially poignant in light of the new AUKUS alliance that also includes Australia and has been lauded as an effort to counter China. In the past British security experts and members of the public have converged in *not* considering China's development as a world power a critical threat to the UK (Thomson 2018), but perhaps a gap is beginning to emerge.

2. Foreign policy attitudes: Multilateralism, unilateralism, isolationism and preferences for diplomacy or military action

Individual-level foreign policy attitudes or predispositions play a key role in how individuals interpret foreign policy (Kertzer et al. 2014; Rathbun et al. 2016; Bayram 2017; Bayram and Thomson 2021). Foreign policy attitudes such as multilateralism, isolationism, and unilateralism vary among different national groups (Thomson 2018) and affect whether

individuals generally support military interventions (Hermann, Tetlock and Visser 1991), as well as playing a role in support for more specific policies such as support for nuclear weapons (Clements and Thomson 2021).

Table 7.3 presents survey results on foreign policy attitudes for the three NATO countries in our study. Members of the public across the three surveyed countries tend to score quite highly on multilateralism. We also find relatively high levels of support for taking unilateral action, as Americans and Britons in particular acknowledge their country might have at times to act alone. We find low levels of support avoiding involvement with other nations, as isolationism is low across the board.

A majority considers that the best way for their country to proceed in foreign affairs is to build international consensus, with 70% of the public in the UK agreeing or strongly agreeing with this sentiment, as does 59% of citizens in the U.S. and Lithuania. Consideration for allies' views are also important- 65% of Americans, 61% of Britons, and 54% of Lithuanians agree or strongly agree that national foreign policies should take into account the views of their major allies. Support for multilateral institutions such as the United Nations remains high at between 50% and 59% across the three national samples.

Support for taking unilateral action at times is also high, but somewhat lower than multilateralist tendencies (especially in Lithuania). While about 6 in 10 of Britons, and half of Americans consider that it is sometimes necessary for their countries to 'go at it' alone in international relations, this is the case for 45% of Lithuanian respondents.

Isolationism is low across the board, particularly in the UK. Less than a third of respondents in each country (21% in the UK, 22% in the U.S., and 31% in Lithuania) consider their country's interests are best protected by avoiding involvement with other nations. Those who either agree or strongly agree with the assertion that their country needs to simply mind its own business when it comes to international affairs reaches 37% in Lithuania, and only 25% in the U.S. and 19% in the UK.

Table 7.3: Foreign policy attitudes across 3 NATO states

		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
Multilateralism	In deciding on its foreign policies, [country] should take into account the views of its major allies	US: 16% UK: 7% LT: 12%	49% 54% 42%	20% 24% 34%	8% 9% 9%	3% 2% 3%	3% 5% 0%
	[Country] should work more through international organizations, like the UN	US: 18% UK: 15% LT: 17%	32% 40% 42%	21% 28% 30%	11% 9% 6%	13% 3% 3%	4% 5% 2%

	The best way for [country] to proceed in foreign affairs is to build international consensus	US: 20% UK: 15% LT: 18%	39% 55% 41%	24% 19% 33%	8% 3% 4%	3% 1% 2%	6% 7% 3%
Unilateralism	Sometimes it is necessary for [country] to go at it alone in international relations	US: 14% UK: 10% LT: 11%	36% 49% 34%	23% 22% 34%	16% 12% 14%	5% 3% 5%	6% 5% 2%
Isolationism	[Country's] interests are best protected by avoiding involvement with other nations	US: 8% UK: 4% LT: 12%	19% 17% 19%	26% 27% 36%	28% 34% 24%	15% 13% 7%	4% 5% 2%
	[Country] needs to simply mind its own business when it comes to international affairs	US: 9% UK: 5% LT: 14%	16% 14% 23%	27% 27% 27%	27% 38% 25%	18% 12% 10%	3% 4% 1%

The commonalities among countries seem more important than the differences we observe. First and foremost, commitment to multilateralism is alive and well. This should prove encouraging news for NATO and international alliances more generally. Isolationist tendencies are low across the board. This is particularly the case in the UK which should reassure those who might have feared Brexit-Britain taking a back seat from the world stage. The countries in our sample reserve the right to take unilateral action when needed – especially the more powerful ones. It is perhaps unsurprising that unilateralism is lower in Lithuania as they are arguably less capable of taking unilateral action.

Table 7.4 reports that six in ten respondents in the three countries surveyed agree or strongly agree with the statement that their country should be committed to diplomacy and not use the military in international crises so quickly (61% in the U.S. and the UK; 63% in Lithuania).

Table 7.4: Support for diplomacy across 3 NATO states

		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
Diplomacy	[Country] should be more committed to diplomacy and not so fast to use the military in international crises	US: 25% UK: 18% LT: 24%	36% 43% 39%	23% 25% 28%	9% 10% 6%	3% 1% 2%	4% 4% 1%

However, Table 7.5 shows that support for the military remains high, indeed at comparable levels to support for diplomacy, in the U.S. and the UK. Practically seven out of ten Americans consider their country needs a strong military to be effective in international relations, as do 63% of Britons. Unsurprisingly, given their small size and population, militarism among Lithuanians is significantly lower, as only 47% agree or strongly agree with the necessity of having a strong *national* military. Their heightened concerns about Russia and strong support for multilateral alliances instead lead to a consistent stance of promoting a greater NATO presence in the former-Soviet regions, and support for U.S. military interventions abroad.

Table 7.5: Militarism across 3 NATO states

		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
Militarism	[Country] needs a strong military to be effective in international relations	US: 37% UK: 22% LT: 16%	32% 41% 31%	17% 20% 33%	8% 11% 12%	3% 3% 7%	3% 4% 1%

3. Alignment preferences and what foreign policy attitudes affect them

In an increasingly multi-polar world, and at a time in which prominent actors have questioned the importance of traditional international institutions, an important issue is which international actor or institution citizens are more likely to side with. Rather surprisingly, across several items asking respondents to side with one key player or another, we find that when asked what actor their nation should align with (when facing a binary choice), between a third to almost 40% of respondents across our cross-national samples have no clear preference. As evidenced in Table 6 below, 32% of Americans neither agreed nor disagreed with the assertion that the U.S. should side with the EU in a situation in which the EU and China's interests were at odds. A majority of American respondents however, agreed or strongly agreed with the statement (53%), whereas only 6% disagreed or strongly disagreed.

Table 7.6: Siding with the EU versus China, American respondents

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
If the EU's and China's interests are at odds, the U.S. should side with the EU	US: 21%	32%	32%	4%	2%	9%

In order to better understand what foreign policy attitudes affect the likelihood of Americans siding with the EU over China, we estimate an ordinary least squares (OLS) regression model. Figure 7.1 below summarizes the results from this model.[60] On the left-hand side of Figure 7.1 we find estimates for foreign policy attitudes that increase the likelihood of siding with the EU. Estimates for foreign policy attitudes that increase the likelihood of *not* siding with the EU over China are those on the right-hand side of Figure 7.1.[61]

Figure 7.1: Effects of foreign policy attitudes on the U.S. siding with the EU versus China
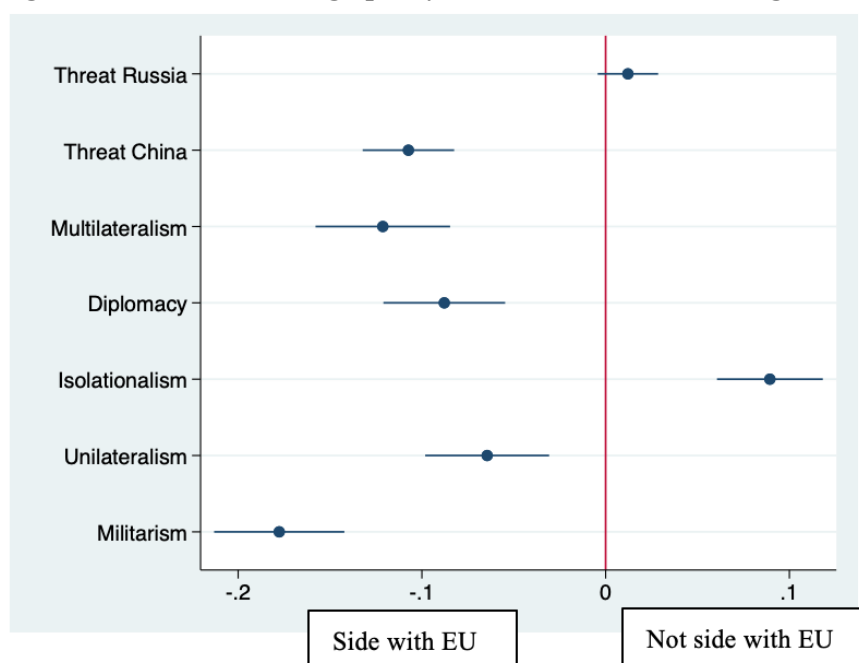
Figure created using the STATA coefplot package (Jann 2014).

The first estimate on the left-hand side of Figure 7.1 shows us that feeling threatened by the development of China as a world power increases the likelihood of wanting to side with the EU if it is at odds with China. Other estimates on the left-hand side of Figure 7.1 are

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[60] All responses from Table 6 are included, with the exception of the 9% who responded they didn't know. Regression table is reported in the Appendix.

[61] The circles represent the estimates of the effects of each factor listed to the left of the figure on respondents' views. The whiskers on either end of these circles represent the 95% confidence intervals for each estimate. When these intervals (or indeed the coefficient circle) include 0 (represented in Figure 1 by the red vertical line), we can conclude that factor doesn't significantly affect the likelihood of an individual preferring to side (or not side) with the EU.

interpreted in the same way, that is siding with the EU is also more likely among those who score high on multilateralism, among those who think the U.S. should be more committed to diplomacy, and among those with higher unilateralist stances. The same is true for those with higher militarism attitudes: those who consider the U.S. needs a strong military in order to be effective in international relations are more likely to side with the EU than with China. On the right-hand side of Figure 7.1 we find the only foreign policy attitude that increases the likelihood of Americans not choosing to side with the EU: having higher isolationist tendencies.[62] This is perhaps unsurprising, as one would expect those who consider that their country's interests are best protected by avoiding involvement with other nations to be less keen to side with an international institution like the EU.

We also measured the alignment preferences of British and Lithuanian respondents when faced with similar binary options, displayed in Table 7.7. We asked respondents in both countries if they would prefer to side with the U.S. or China if their interests were at odds.

Table 7.7: Siding with the U.S. versus China, UK and Lithuania

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	Don't know
If U.S. and China's interests are at odds, [country] should side with the U.S.	UK: 14% LT: 21%	28% 27%	37% 35%	9% 10%	3% 5%	8% 2%

Over a third of respondents didn't align with either side- they neither agreed nor disagreed when asked if their country should side with the U.S. if American interests are at odds with China. In Table 7.7 we can see that 42% of Britons prefer to side with the U.S. were they at odds with China, as do 48% of Lithuanians who agree or strongly agree with this option. Only 12% of British respondents and 15% of Lithuanian ones disagree or strongly disagree that their country should side with the U.S.

We estimated two OLS regression models to help unpack what is behind these differences in individual alignment preferences. Figure 7.2 can be read similarly to Figure 7.1: estimates for foreign policy attitudes that increase the likelihood of siding with the U.S. are those on the left-hand side of each quadrant.[63] Conversely, estimates on the right-hand side of each quadrant represent foreign policy attitudes that increase the likelihood of *not* siding with the U.S. over China. The left quadrant illustrates British citizens, while the right quadrant depicts Lithuanian ones.

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[62] Considering Russia a critical threat is also on the right-hand side of Figure 1. However, the 95% confidence interval includes 0 (as evidenced by the whisker going over the red vertical line in Figure 1). We therefore cannot confirm that this factor has a statistically significant effect on the likelihood of an individual preferring to side (or not side) with the EU.

[63] All responses from Table 7 are included, with the exception of 'don't know' responses. Regression tables are reported in the Appendix.

Figure 7.2: Effects of foreign policy attitudes on siding with the U.S. versus China
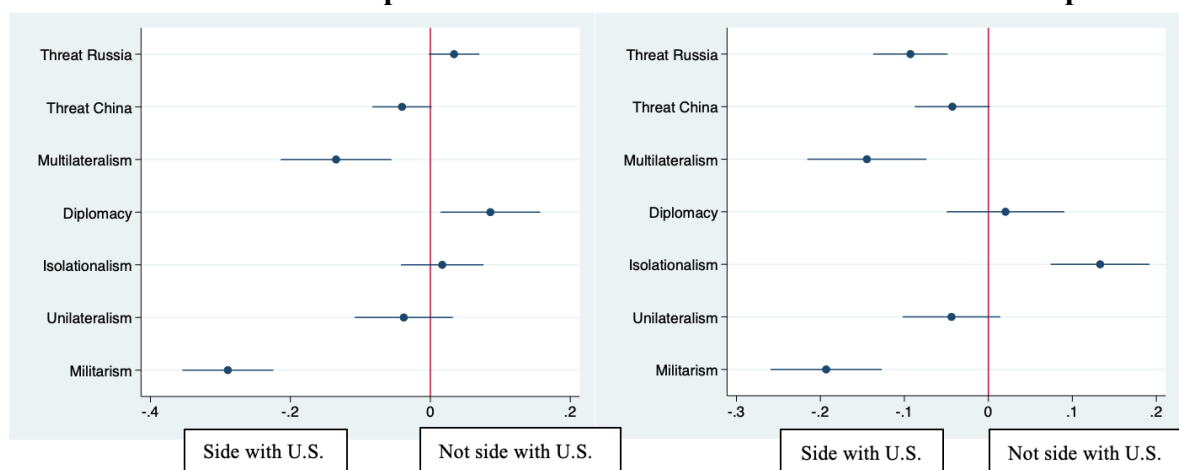

Figure created using the STATA coefplot package (Jann 2014).

Compared to American alignment preferences, less foreign policy attitudes affect whether Britons and Lithuanians are more likely to side with the U.S. (or oppose doing so). Similar to the American case however, here too we find that multilateralism and militarism play an important role- those who score higher on both accounts are more likely to side with the U.S. over China. Interestingly, considering China's development as a world power as a critical threat does not play a role in either country,[64] but in Lithuania the more threatened citizens are by Russia's territorial ambitions, the more likely they are to side with the U.S. This underlines how front and center Russia is for many Lithuanians and how they may assume the U.S. would be a natural ally against her. For UK respondents, placing greater value in diplomacy, is associated with a higher likelihood of not siding with the U.S., perhaps due to fearing the possibility of direct American-Chinese confrontation. It is possible that domestic politics may be playing a role here, as moderate voices in parliament have been arguing for a less hawkish stance toward China. Among Lithuanians on the other hand, those who score higher on isolationism are less likely to side with the U.S. This factor also played a role among Americans in the EU-China scenario, as isolationists in the U.S. were also less likely to side with what one would consider a natural ally (in that case the EU). One could reasonably expect citizens who think Lithuania's interests are best protected by avoiding involvement with other nations to be less enthusiastic about siding with the U.S., with whom Lithuanians have often engaged with militarily.

Across all three samples, those who score higher on multilateralism and militarism are more likely to privilege siding with a key player other than China (such as the EU or the U.S.). Feeling threatened by China or Russia can also play a role among American or Lithuanian citizens. In a world in which many states are adopting a more flexible model of alliances instead of relying on fixed bonds, it is paramount to continue to work on uncovering the factors associated with these individual-level preferences. Especially when such large

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[64] Feeling threatened by China is on the verge of having a statistically-significant effect on the likelihood of British and Lithuanians being more likely to side with the U.S. However, as the 95% confidence interval includes 0 (as evidenced by the whisker touching the red vertical line in both quadrants of Figure 2), we cannot credibly conclude that feeling threatened by China increases the likelihood of a respondent preferring to side with the U.S. A similar situation occurs with feeling threatened by Russia in the British sample (which also does not reach the conventional threshold for statistical significance).

segments of the population in as diverse members of NATO such as the U.S., the UK, and Lithuania do not (yet at least) have fully-crystalized preferences in the area.

4. **Is NATO, the EU or the U.S. the preferred source of support in case of foreign interference in a former Soviet state?**

The survey also included items geared at assessing which international players citizens in these three NATO member states consider should play a role in case of foreign interference in a former Soviet state like Lithuania. Likely a reflection of the high levels of multilateralism discussed above, NATO was the most supported option across the board. In the U.S. and the UK, we asked whose support should a former Soviet state such as Lithuania seek if Russia is found to be intervening in their internal affairs. As depicted in Table 8, both American and British respondents are more likely to favor seeking support from NATO (55% of British respondents preferred this alternative, as did 41% of Americans). Less popular alternatives were to have such a state seek support from the EU (preferred by 28% of Americans and 24% of Britons) or the United States (preferred by 16% of Americans and just 6% of Britons).

Table 7.8: Support if Russian interference in former soviet state, U.S. and UK

	The United States	The European Union	NATO	Other	None of the above
If Russia is found to be intervening in the internal affairs of a former Soviet state like Lithuania, whose support should Lithuania seek?	US: 16% UK: 6%	28% 24%	41% 55%	4% 5%	11% 11%

In order to better understand what factors affect selecting one actor over another in the scenario above, we tabulated some measures of association.[65] In both the U.S. and the UK, those higher in multilateralist attitudes were more likely to support NATO playing a role in a case of Russian interference in domestic matters of an ex-Soviet state. Forty-seven percent of those who agree or strongly agree their country should consider the views of its major allies selected NATO in the American sample. Support for NATO among British multilateralists was even higher- 58% of those who agreed and 59% of those who strongly agreed the UK should consider the views of its major allies privileged NATO in this scenario.

Further supporting the notion that multilateralism and unilateralism can co-exist, NATO was also the most popular response among those who scored highly on unilateralist attitudes in the U.S. and the UK. Although support for a former Soviet state to seek NATO's assistance was higher among individuals with lower unilateralist stances, those who agreed or strongly agreed with the statement 'sometimes it is necessary for the U.S./UK to go at it alone in international relations' were more likely to select NATO over other alternatives (44% and 35% respectfully in the U.S. and 58% for both groups in the UK).

Isolationist attitudes follow a rather different pattern. In the U.S. those high on isolationism scores are quite divided on this item. Among those who strongly agree with the statement,

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[65] Full tables in Appendix.

'the U.S.'s interests are best protected by avoiding involvement with other nations', just under a third considered the former Soviet state should rely on NATO or the EU (32% in both cases). Twenty-one percent of Americans in this isolationist category considered the U.S. should be the player the ex-Soviet state seeks support from (the figure increasing to 31% among those who strongly support the isolationist measure). In the UK those high on isolationist postures are more in favour of NATO playing a role in the scenario- 52% of those who support the isolationist statement, and 53% of those strongly support it think NATO's help should be sought. However, support for NATO among those lower on isolationist attitudes is even higher in both American and British members of the public.

Not only do we find that multilateralism vs. unilateralism is a false dichotomy when it comes to support for NATO (as people who score highly on both scales support NATO), the same is true for placing high value in diplomacy and supporting the military. NATO is favored both by diplomats and by those who are open to military action. Among Americans, NATO is the preferred response both among those who place the highest value in diplomacy as well as those who think the country needs a strong military to be effective in international relations. Forty-five percent of those who agree that the U.S. should be more committed to diplomacy support NATO in this scenario, as do 47% of those who strongly agree with this pro-diplomacy stance. Forty-six of those who agree a strong military is necessary to be effective selected NATO in this scenario, as did 41% of those who strongly agreed with this stance. A comparable dynamic can be observed in the UK, with 60% of those who agree with the necessity of a strong military and 58% of those who strongly agree with that stance supporting NATO in the item in question. The story varies somewhat when it comes to diplomatic preferences in the UK, as although NATO is the preferred choice among those who place high value in diplomacy, it is even more supported among those who are less supportive of the use of diplomacy in times of crises.

We asked a different but comparable item among Lithuanian respondents. Specifically, they were asked whose support would be most important if another state is found to be intervening in Lithuania's internal domestic affairs. As evidenced in Table 7.9, almost half of Lithuanians (47%) considered support from NATO would be most important. Forty percent stated support from the EU would be most important, and only 8% said the same for American support. Although with Lithuanians support from NATO is the most popular response (as was the case for American and British respondents), their relatively high levels of multilateralism encompass considering support from the EU as paramount as well.

Table 7.9: Support if foreign interference in domestic affairs, Lithuania

	The United States	The European Union	NATO	Other	None of the above
If another state is found to be intervening in Lithuania's internal domestic affairs, which international player's support would be most important?	LT: 8%	40%	47%	1%	5%

We also tabulated measures of association for the item above to get a clearer sense of the role of foreign policy attitudes in choosing international support in times of crises.[66] Foreign

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[66] Full tables in Appendix.

policy attitudes affect preferences regarding whose support to seek in a case of foreign intervention in domestic affairs similarly in Lithuania, the U.S. and the UK in two important ways. First, across the three countries individuals with higher multilateralist scores chose NATO as the international actor whose support would be most important. In Lithuania, 49% of those who agree with the statement that Lithuania should consider the views of its major allies, and 54% of those who strongly agree with this statement selected NATO. Second, citizens across the three samples with higher militarism scores also privilege NATO's support in such a scenario. Fifty-five percent of Lithuanians who agree a strong military is necessary to be effective in international relations selected NATO in this scenario, as did 54% of those who strongly agreed with this stance.

Of course, there are important differences between the views of the Lithuanian public and those of the citizens in the U.S. and UK. First and foremost, as evidenced in Table 9 Lithuanians are quite split when it comes to whose support to seek (with only a 7-percentage point difference between those who selected NATO and those who instead would favor seeking the EU's support). Scoring highly on foreign policy attitudes that in the American and British samples translate into selecting NATO, in the Lithuanian case can lead to increased support for either NATO or the EU. When it comes to unilateralism, the preferences of Lithuanians who score highly on this item are generally in line with those of Americans and Britons, as 52% of those who agree that sometimes it is necessary for Lithuania to go at it alone in international relations selected NATO, as did 32% of those who strongly agreed with this stance. There is an important difference in the Lithuanian sample however, as support for the EU intervening is also high among those who agree or strongly agree with a unilateralist stance (37% and 47% respectfully). Seeking support for either NATO or the EU is also preferred among Lithuanians who scored highly on isolationism (as was the case in the American –but not the British– sample). Thirty nine percent of Lithuanians who support their country taking an isolationist stance selected the EU, as do 52% of those who strongly support avoiding involvement with other nations (compared to 47% and 35% of those within these groups opting for NATO). This is also the case for Lithuanians who place high importance to using diplomacy in times of crises. Between 40 to 46% of those who support or strongly support privileging using diplomacy over engaging militarily selected the EU of NATO in the Lithuanian sample.

In sum, while respondents in the U.S. and UK naturally gravitate towards NATO when confronted with a non-traditional threat such as foreign intervention in the domestic affairs of a sovereign state, this isn't always the case for Lithuanian respondents. In the Lithuanian case both NATO and the EU are recognized as key actors whose supported should be sought. However, the military nature of the NATO alliance means that Lithuanians who place higher value in the military are more likely to prefer NATO support in such a crisis. Similarly, while the EU and NATO are both multilateral institutions, Lithuanians with higher multilateralist attitudes will also gravitate more clearly towards NATO.

5. Discussion and Implications

While the American Chair of the Joint Chiefs of Staff has confirmed that China has successfully tested a first-of-its-kind hypersonic missile (Bowden 2021), a former MI6 officer claims Russia is 'at war' with the UK as interference in domestic politics increase and diversify (Sharman 2021). The new AUKUS security alliance has emerged as a key player in the South China sea, significantly upsetting traditional Western allies such as France

(Therrien 2021). China loses diplomatic ground in Europe as Taiwan is increasingly recognized by states such as Lithuania, effectively leading to China recalling its ambassador (Aboudouh 2021). The security interests of NATO member states are increasingly challenged by threats associated with traditional warfare, but also by behavior that remains well below the threshold for armed conflict such as foreign interference in media and elections. (Murauskaite et al 2019).

Public opinion of course does not translate directly into policy, but it can foment or constrain coercive foreign policies in democracies, including the initiation of warfare (Bueno de Mesquita and Siverson 1995; Bueno de Mesquita et al. 1999; Thomson 2016). It is tempting to treat countries as unitary actors, pursuing what one assumes is their national interest. However, these assumptions do not always hold and if decision-makers are to try and shape the behavior of adversaries without resorting to full-scale war, they need to better understand key factors affecting public opinion. Despite polling data being more ubiquitous than ever before, many simply interpret political preferences and events incorrectly. Brexit for instance is often seen as evidence of an isolationalist Britain. Closer inspection of the foreign policy attitudes of those who voted to leave versus those who voted to remain in the EU however paints a very different picture. Isolationalist attitudes are low across the board. The key difference between both groups is that those who voted 'remain' privilege multilateralism, while those who voted 'leave' prefer unilateralist action (Thomson 2018).

NATO has grown from 12 founding members to 30, significantly extending the applicability of its Article 5 security guarantee while many of its newer members offered little additional military strength. As summarized by Clarke and Ramscar, 'NATO's core military power is much less than when it was half its present size' (2020:29). What does this mean as some claim NATO is reverting to its original mission of deterring powers such as Russia (Trenin 2021)? Citizens of two of the most powerful founding members, as well as those of an increasingly assertive Lithuania are in agreement: NATO's support should be sought were a foreign state be found interfering in the affairs of a former Soviet state. The dynamics underlying such support vary between these three countries, however. Citizens who value multilateralism and militarism seek NATO support across the board- NATO is after all, a multilateral military alliance. For Americans however, NATO is also considered an important diplomatic tool, as Americans who place high value in diplomacy support NATO in a way Britons or Lithuanians do not. Furthermore, for Lithuania NATO isn't the only international organization they might want to call on in case of foreign interference, as a significant minority would opt for resorting to the EU.

Multilateralist and militaristic attitudes are also playing a pivotal role when it comes to deciding whether to side with the U.S. or the EU should their interest be at odds with those of China, across all three samples. Isolationism, on the other hand, is associated with an increased likelihood of not taking a clearer anti-China stance in both the U.S. and Lithuania, however not in the UK. Instead, in the UK we find that those who value diplomacy very highly are less likely to want to side with the U.S. That is, despite support for diplomacy initially appearing similarly high across all samples, it is translating into different security preferences for those in the UK relative to those in the other two member states, in particular the Americans.

NATO will be perceived as the international first port of call among a significant segment of the population (notably multilateral militarists), and strategically reinforcing communications regarding NATO's most basic role as a multilateral military alliance should help cement such

support. However, this will not necessarily translate into fixed alliances prevailing as they have done in the past. Allying with another state in one organization does not carry over to automatically siding with that state in other circumstances. Between one third to 40% of our overall sample of 6,300, when facing a binary choice, have no clear preference for relying on a pivotal member of NATO such as the U.S., or an organization whose membership significantly overlaps with that of NATO (the EU).

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OLS regression table for Figure 7.1:
Effects of foreign policy attitudes on the U.S. siding with the EU versus China, American respondents

Threat Russia	0.012 (0.008)
Threat China	-0.107*** (0.013)
Multilateralism	-0.121*** (0.019)
Diplomacy	-0.088*** (0.017)
Isolationism	0.089*** (0.014)
Unilateralism	-0.064*** (0.017)
Militarism	-0.178*** (0.018)
Constant	4.220*** (0.119)
N	3,658

Robust standard errors in parenthesis. ***p<0.01; **p<0.05; p<0.1

OLS regression table for Figure 7.2:
Effects of foreign policy attitudes on siding with the U.S. versus China, British and Lithuanian respondents

	Model 1 (UK)	Model 2 (Lithuania)
Threat Russia	0.334* (0.018)	-0.093*** (0.023)
Threat China	-0.040* (0.022)	-0.043* (0.023)
Multilateralism	-0.135*** (0.040)	-0.145*** (0.036)
Diplomacy	0.086** (0.037)	0.020 (0.036)
Isolationalism	0.017 (0.030)	0.133*** (0.030)
Unilateralism	-0.040 (0.036)	-0.044 (0.030)
Militarism	-0.290*** (0.033)	-0.193*** (0.034)
Constant	3.902*** (0.210)	4.000*** (0.239)
N	1,192	991

Robust standard errors in parenthesis. ***p<0.01; **p<0.05; p<0.1

Tabulation of measures of association for Table 7.8:
Support if Russian interference in former soviet state, American respondents

Multilateralism Item: In deciding on its foreign policies, the U.S. should take into account the views of its major allies							
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	17.52%	23.68%	19.69%	20.92%	12.42%	18.25%
	The EU	13.14%	26.32%	27.69%	26.61%	30.09%	24.85%
	NATO	18.25%	23.68%	40.31%	27.35%	46.69%	46.78%
	Other	5.84%	7.02%	4.00%	3.84%	4.33%	3.53%
	None of the above	45.26%	19.30%	8.31%	21.29%	6.47%	6.60%
	Total	100%	100%	100%	100%	100%	100%

Unilateralism item: Sometimes it is necessary for the U.S. to go at it alone in international relations							
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	13.85%	10.84%	9.92%	17.91%	14.41%	27.68%
	The EU	21.21%	32.02%	28.16%	26.12%	30.01%	24.64%
	NATO	24.24%	42.36%	52.32%	35.07%	43.87%	34.82%
	Other	8.66%	8.37%	3.52%	3.30%	3.60%	4.64%
	None of the above	32.03%	6.40%	6.08%	17.59%	8.11%	8.21%
	Total	100%	100%	100%	100%	100%	100%

		Isolationalism item: The U.S.'s interests are best protected by avoiding involvement with other nations					
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	13.04%	9.74%	10.50%	18.89%	20.65%	30.55%
	The EU	18.63%	25.08%	29.44%	24.74%	32.42%	28.94%
	NATO	27.33%	55.12%	50.09%	35.76%	31.63%	24.12%
	Other	8.70%	6.44%	4.40%	3.74%	2.22%	3.22%
	None of the above	32.30%	3.63%	5.57%	16.87%	13.07%	13.18%
	Total	100%	100%	100%	100%	100%	100%

		Diplomacy item: The U.S. should be more committed to diplomacy and not so fast to use the military in international crises					
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	20.00%	25.24%	19.58%	21.41%	12.77%	13.64%
	The EU	15.17%	26.21%	31.75%	23.40%	30.30%	28.07%
	NATO	13.10%	33.01%	35.19%	33.89%	44.93%	47.30%
	Other	5.52%	3.88%	3.70%	3.42%	4.00%	5.20%
	None of the above	46.21%	11.65%	9.79%	17.88%	8.01%	5.79%
	Total	100%	100%	100%	100%	100%	100%

Militarism item: The U.S. needs a strong military to be effective in international relations						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	17.74%	7.19%	11.08%	18.77%	13.32%	19.22%
	The EU	15.32%	34.53%	33.86%	24.07%	28.31%	27.84%
	NATO	17.74%	35.25%	40.82%	34.53%	46.23%	41.18%
	Other	3.23%	12.23%	5.38%	2.72%	3.89%	4.24%
	None of the above	45.97%	10.79%	8.86%	19.91%	8.25%	7.52%
	Total	100%	100%	100%	100%	100%	100%

Tabulation of measures of association for Table 7.8:
Support if Russian interference in former soviet state, British respondents

Multilateralism item: In deciding on its foreign policies, the UK should take into account the views of its major allies						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	6.78%	13.64%	6.09%	7.23%	4.71%	6.98%
	The EU	30.51%	13.64%	20.00%	22.01%	25.00%	23.26%
	NATO	16.95%	54.55%	63.48%	50.31%	57.57%	59.30%
	Other	6.78%	4.55%	4.35%	4.72%	5.43%	5.81%
	None of the above	37.29%	13.64%	6.09%	15.72%	7.29%	4.65%
	Total	100%	100%	100%	100%	100%	100%

Unilateralism item: Sometimes it is necessary for the UK to go at it alone in international relations						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	5.63%	2.94%	4.64%	6.05%	4.56%	14.29%
	The EU	26.76%	35.29%	23.18%	23.49%	23.90%	19.05%
	NATO	28.17%	41.18%	59.60%	50.89%	58.02%	57.94%
	Other	5.63%	8.82%	9.27%	5.34%	4.40%	3.17%
	None of the above	32.39%	11.76%	3.31%	14.23%	9.12%	5.56%
	Total	100%	100%	100%	100%	100%	100%

Isolationalism item: The UK's interests are best protected by avoiding involvement with other nations						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	4.55	2.35	3.89	7.28	8.14	16.33
	The EU	18.18	27.06	22.88	26.05	22.62	16.33
	NATO	37.88	57.06	62.01	49.02	52.04	53.06
	Other	4.55	10.00	6.86	3.08	2.71	2.04
	None of the above	33.33	3.53	4.35	14.57	14.48	12.24
	Total	100%	100%	100%	100%	100%	100%

Diplomacy item: The UK should be more committed to diplomacy and not so fast to use the military in international crises							
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	7.14	25.00	9.38	7.14	5.06	2.63
	The EU	23.21	8.33	24.22	20.50	23.69	28.95
	NATO	14.29	66.67	57.03	56.83	58.05	50.88
	Other	7.14	0.00	3.91	2.17	4.52	11.84
	None of the above	46.43	0.00	5.47	13.35	8.68	5.70
	Total	100%	100%	100%	100%	100%	100%

Militarism item: The UK needs a strong military to be effective in international relations							
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should former Soviet state seek	The U.S.	0.00	5.26	2.08	5.04	5.24	10.71
	The EU	19.57	21.05	33.33	24.42	23.22	20.36
	NATO	28.26	42.11	49.31	48.06	60.30	58.21
	Other	6.52	26.32	9.03	5.81	2.81	4.29
	None of the above	45.65	5.26	6.25	16.28	8.43	6.43
	Total	100%	100%	100%	100%	100%	100%

Tabulation of measures of association for Table 7.9:
Support if foreign interference in domestic affairs, Lithuanian respondents

Multilateralism item: In deciding on its foreign policies, Lithuania should take into account the views of its major allies						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should Lithuania seek	The U.S.	33.33	18.52	4.60	10.09	7.66	6.61
	The EU	66.67	25.93	47.13	38.62	41.30	33.06
	NATO	0.00	22.22	41.38	45.53	48.72	53.72
	Other	0.00	0.00	0.00	0.86	0.93	0.00
	None of the above	0.00	33.33	6.90	4.90	1.39	6.61
	Total	100%	100%	100%	100%	100%	100%

Unilateralism item: Sometimes it is necessary for Lithuania to go at it alone in international relations						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should Lithuania seek	The U.S.	4.55	8.51	6.43	8.43	8.07	12.93
	The EU	50.00	36.17	37.86	40.12	36.89	47.41
	NATO	31.82	46.81	51.43	45.93	51.59	31.90
	Other	0.00	0.00	1.43	1.16	0.29	0.00
	None of the above	13.64	8.51	2.86	4.36	3.17	7.76
	Total	100%	100%	100%	100%	100%	100%

Isolationalism item: Lithuania's interests are best protected by avoiding involvement with other nations						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should Lithuania seek	The U.S.	5.26	17.81	9.43	8.70	6.91	3.23
	The EU	52.63	28.77	36.48	39.13	39.36	51.61
	NATO	31.58	49.32	51.64	47.55	47.34	34.68
	Other	0.00	1.37	0.41	0.54	1.06	0.81
	None of the above	10.53	2.74	2.05	4.08	5.32	9.68
	Total	100%	100%	100%	100%	100%	100%

Diplomacy item: Lithuania should be more committed to diplomacy and not so fast to use the military in international crises						
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should Lithuania seek	The U.S.	16.67	22.22	13.85	11.66	6.80	4.86
	The EU	33.33	27.78	26.15	35.34	44.84	40.49
	NATO	16.67	33.33	55.38	48.76	45.34	46.15
	Other	16.67	0.00	0.00	0.71	0.25	1.21
	None of the above	16.67	16.67	4.62	3.53	2.77	7.29
	Total	100%	100%	100%	100%	100%	100%

Militarism item: Lithuania needs a strong military to be effective in international relations							
		Don't Know	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
Whose support should Lithuania seek	The U.S.	9.09	4.35	5.88	8.28	8.33	12.57
	The EU	27.27	57.97	47.06	42.60	34.29	31.14
	NATO	27.27	21.74	42.02	43.49	54.49	53.89
	Other	0.00	1.45	0.84	0.89	0.32	0.60
	None of the above	36.36	14.49	4.20	4.73	2.56	1.80
	Total	100%	100%	100%	100%	100%	100%

Chapter 8: Modeling and Analyzing Gray Zone Scenarios for the Aegean Sea and South China Sea Crises

Alexander H. Levis

Introduction

The overall research objective of this Minerva Research Initiative project is to investigate and compare the effectiveness of analytic and operational planning tools available to U.S. decision makers to shape adversary behavior in managing escalation in gray zone crises involving other great powers and/or their proxies.

With the assumption that deterrence effectiveness can be conceptualized as a continuum, conceptual and computational models enable investigation into the degree to which an actor is deterred. The following four parameters are key to framing such deterrence calculus: the context within which a deterrence decision is made (for example, internal crisis, regional crisis, military confrontation); the nature of the deterrence decision (such as threat to core interest, an opportunity to add value, level of uncertainty); the type of adversary (to include global power, emerging regional power, non-state actor); and the type of action to be deterred (such as conventional conflict, nuclear conflict, use of particular weapons, violation of international norms, aggression against a third party, or other behavior adverse to national core interests).

On the most fundamental level, deterrence works because mutual understanding exists among the actors that the use of armed conflict is not acceptable, although individual actors may place or imply conditions reflecting their perception of what constitutes armed conflict. Drawing on the classic tenets of deterrence theory and U.S. military doctrine, conceptual and computational models are used to explore the impact of mutual understanding regarding the acceptability of one actor's behaviors (types of actions) to another as a factor in determining the ability of actors to deter one another.

With the increased complexity of the 21st century environment relative to deterrence in the 20th century, the objective of this part of the project is to develop conceptual and computational models which revisit the dynamics of escalation management in scenarios involving competition short of armed conflict, with particular emphasis on exploring the cumulative effects of low-scale conflict.

An approach for addressing the complexities of experiments that include humans and that cannot be repeated many times is to use a model-driven experimentation approach (Levis and Vaughan, 1999), in which a model of the conceived experiment is constructed and then used to simulate the execution of the experiment. This approach provides explanatory power to issues of particular relevance to decision-makers by varying scenarios to explore outcome sensitivity to inputs.

This report presents the results of the first phase of the development of conceptual and computational models (a) to explore the impact of mutual understanding among actors in deterring one another; (b) to revisit the dynamics of escalation management in scenarios involving competition short of armed conflict; and (c) to use these models as input in the

planned experimental program. Two cases are presented: an old one drawn from data in the International Crisis Behavior (ICB) database – The Aegean Sea Crisis of 1976 between Greece and Turkey, and 1996 and one drawn from recent headlines - the Second Thomas Shoal case in the South China Sea.

1. The Aegean Sea Crisis of 1976

The Aegean Sea Crisis of 1976 as described in the International Crisis Behavior (ICB) data set was selected (Brecher et al., 2021). Greece and Turkey experienced a crisis over disputed rights to Aegean Sea resources from 6 August to 25 September 1976. The same type of crisis has occurred several times since then, in 1984, 1987, and 1996, while a current crisis is occurring because Turkey is beginning to drill for oil/natural gas in disputed areas between the two countries.

Background and Pre-crisis: Greece had long claimed an exclusive right to the continental shelf off each of its Aegean islands. Turkey has disputed the claim. Their protracted conflict flared up again on 15 July 1976, when Turkey's prime minister announced that a Turkish "research vessel," the Sizmik I, would prospect for oil in the Aegean Sea before the end of the month. On the 19th of July Greece threatened military retaliation if Turkey violated Greece's jurisdiction in the Aegean. And on the 29th Greece dispatched several warships to patrol the area.

The Sizmik I sailed from Canakkale on 6 August, accompanied by a Turkish minesweeper and military aircraft. This triggered a crisis for Greece, which filed a complaint with Turkey immediately. On the 12th of August Athens declared a state of alert for all Greek troops along the border with Turkey. Almost all of the Greek Air Force was moved to forward bases. And the Greek Navy began patrolling the eastern Aegean, where the Turkish vessel continued to take seismic soundings. Greece also complained to the UN Security Council and appealed to the International Court of Justice.

The Greek military response of 12 August triggered a crisis for Turkey. Both parties entered into negotiations under U.S. auspices. The Security Council passed a resolution urging negotiations and providing a framework for crisis resolution. The U.S. and the Soviet Union also encouraged the parties to negotiate. In September the Turkish Navy announced that its "research ship" would cease operations in the Aegean. On 25 September it returned to Turkish waters, terminating the first of three crises on this aspect of the Greece/Turkey conflict[67].

1.1 Modeling the Scenario

A simple Timed Influence Net was developed using the Pythia tool. For a brief description of the tool, see the Appendix. Notional values for the influences on the various actions and reactions were used; they are not accurate but chosen to show effects. Time delays were included based on the timeline given in the description of the crisis; the crisis lasted 72 days. Most delays are node delays indicating the time that these actions were taken, e.g., at time 0 TR (TR signifies Turkey) indicates intent but action is not taken until time 22 (in days). The basic Model is shown in Fig. 8.1. Turkey's intent is represented by the node in the upper left-

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[67] For further details, see ICB Cases #349 and #376.

hand corner and Turkey's actions that trigger the crisis by the three nodes to its right. They are marked in red in Fig. 8.2.

Figure 8.1: The basic Timed Influence Net model.

Figure 8.2: Turkey's intent and actions.
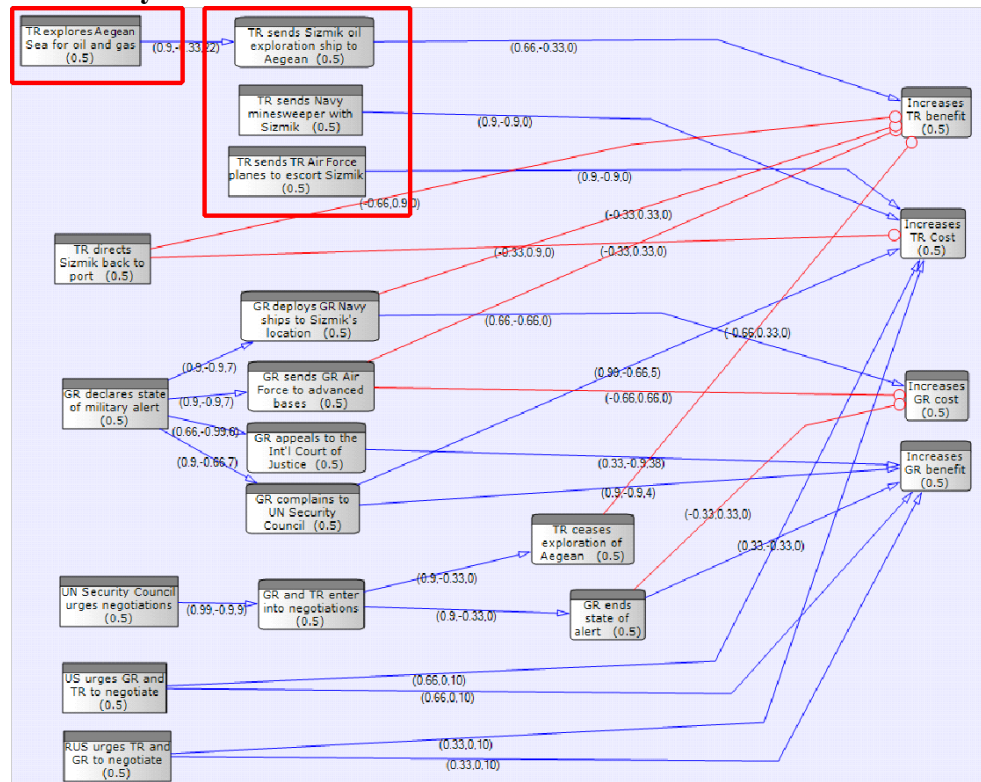
Greece's response and the international response are shown in Fig. 8.3. Greece's is in the blue frame and the international response in the green frame.

Figure 8.3: Greece's and International actions.
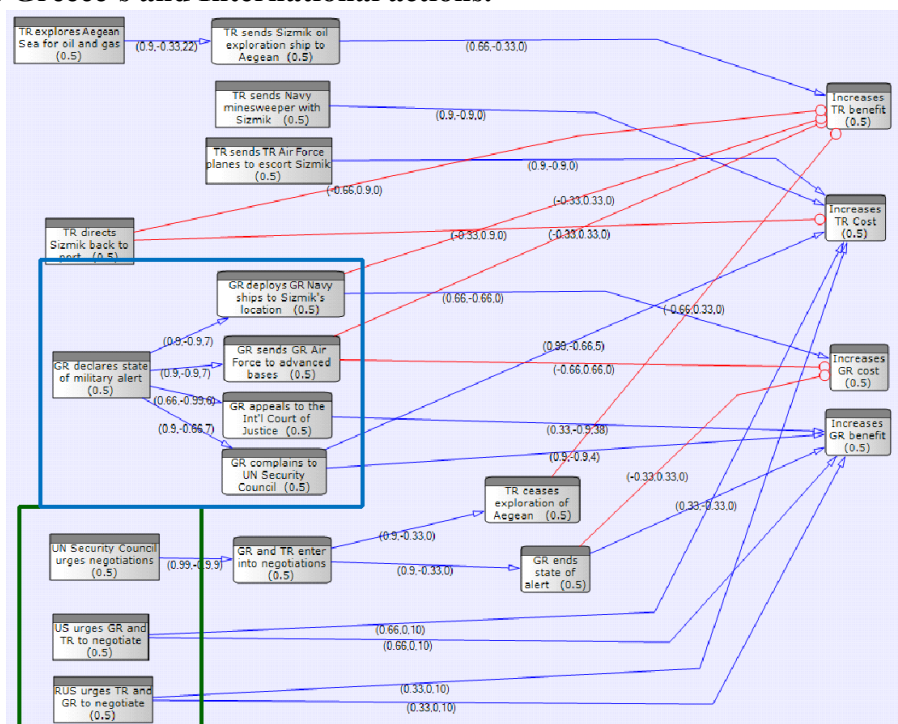
The next figure, Fig. 8.4, shows the nodes that represent negotiations between Greece and Turkey (yellow frame) and the actions by Turkey that defuse the crisis (orange frame).

Figure 8.4: Negotiations and defusing the crisis.
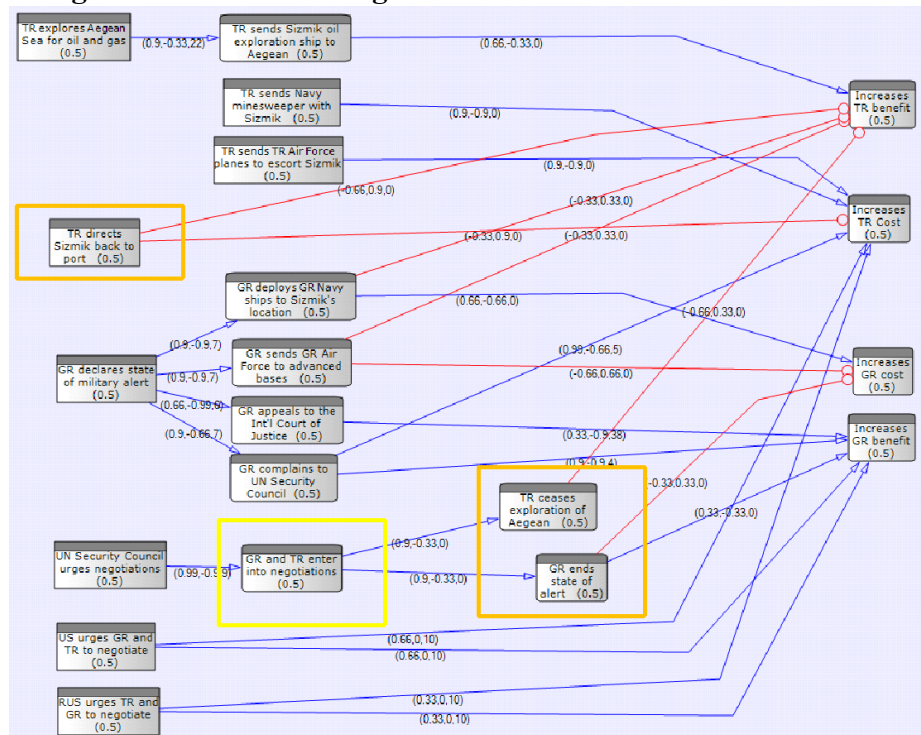
1.2 Generating Courses of Action
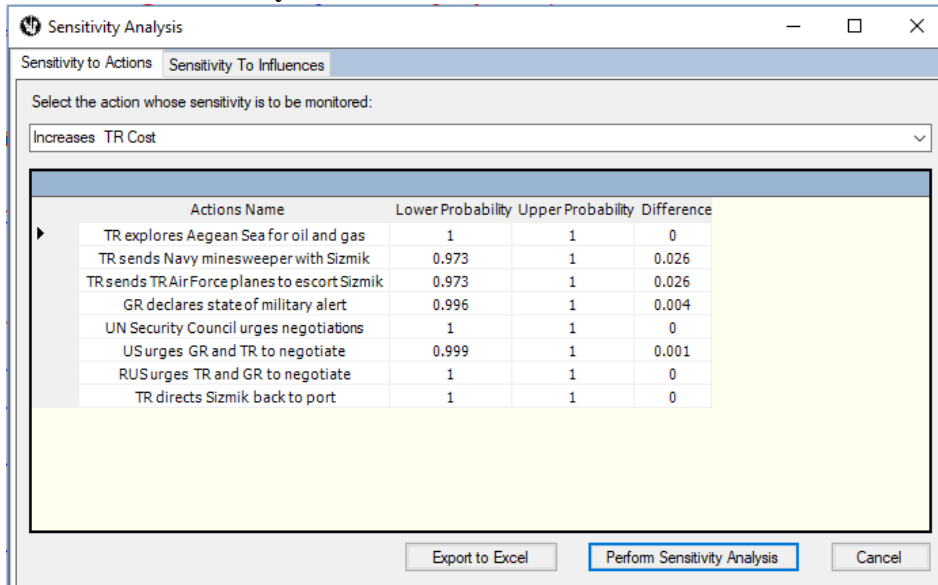
Executing the Static Propagation algorithm embedded in the Pythia tool shows that if all actions are taken, independent of timing, the results are high cost and low benefit for Turkey, medium cost and high benefit for Greece. However, if timing is considered it becomes clear that this is a case of "fait accompli", i.e., Turkey achieved its objective of exploration for gas and oil and at the conclusion of the mission returned the Smizik I to port thus ending the crisis.

The results were analyzed using the sensitivity analysis tools in Pythia. These two tables (Tables 8.1 and 8.2) show the sensitivity of the two Turkey outcomes (benefit and cost) to the various actions included in the Course of Action chosen (as per Aegean Sea I description)

Table 8.1: Sensitivity of "Increases TR benefit" to Actions taken.

Actions Name	Lower Probability	Upper Probability	Difference
TR explores Aegean Sea for oil and gas	0.049	0.097	0.048
TR sends Navy minesweeper with Sizmik	0.097	0.097	0
TR sends TR Air Force planes to escort Sizmik	0.097	0.097	0
GR declares state of military alert	0.369	0.097	-0.272
UN Security Council urges negotiations	0.254	0.097	-0.157
US urges GR and TR to negotiate	0.097	0.097	0
RUS urges TR and GR to negotiate	0.097	0.097	0
TR directs Sizmik back to port	0.882	0.097	-0.785

Table 8.2: Sensitivity of "Increases TR cost" to Actions taken.
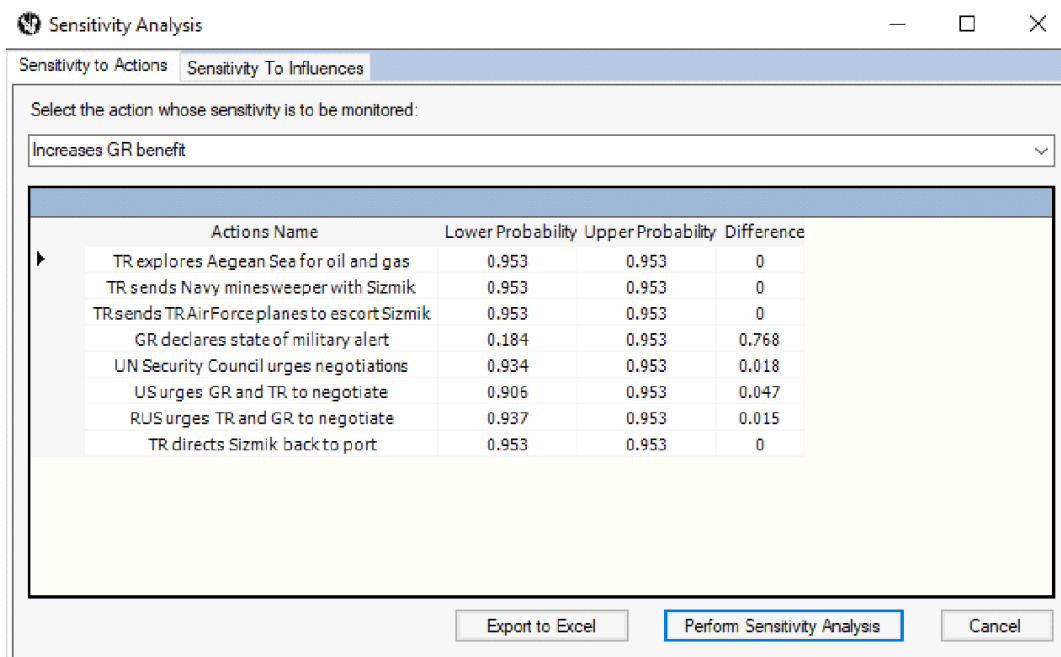
The corresponding tables for Greece are Tables 8.3 and 8.4. These two tables show the sensitivity of the two Greek outcomes (benefit and cost) to the various actions included in the Course of Action chosen (as per Aegean Sea I description)

Table 8.3: Sensitivity of "Increases GR benefit" to Actions taken.

Table 8.4: Sensitivity of "Increases GR cost" to Actions taken.

Actions Name	Lower Probability	Upper Probability	Difference
TR explores Aegean Sea for oil and gas	0.365	0.365	0
TR sends Navy minesweeper with Sizmik	0.365	0.365	0
TR sends TR Air Force planes to escort Sizmik	0.365	0.365	0
GR declares state of military alert	0.365	0.365	0
UN Security Council urges negotiations	0.541	0.365	-0.176
US urges GR and TR to negotiate	0.365	0.365	0
RUS urges TR and GR to negotiate	0.365	0.365	0
TR directs Sizmik back to port	0.365	0.365	0

Using the scenario in the Aegean Sea I crisis description, the following probability profiles were produced (Fig. 8.5) by executing the Timed Influence Net in Pythia. They are not realistic but they are very descriptive and show how actions taken at different times affect costs and benefits. The breaks in the probability profiles reflect the effects of Greek and international actions.

Figure 8.5: Probability profiles indicating the effect of actions taken over time.

183
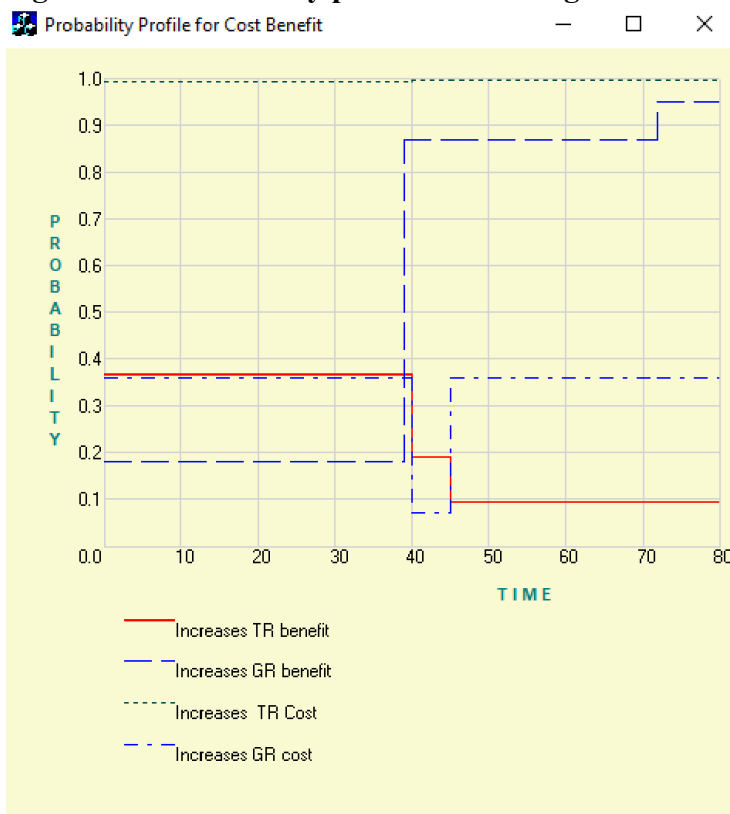
In another scenario in which Greece does not respond militarily, Turkey's benefit was high and the cost moderate because the international community stepped in to defuse the crisis.

1.3 Modeling the organizational structure

The software application CAESAR III is used to model the organizational structure for this scenario.[68]

The first step is to identify the Actors that are mentioned in the narrative of the case. They are the following:
  1. Turkey
  2. Greece
  3. The UN Security Council
  4. The International Court of Justice
  5. USA
  6. Russia

In addition, in order to capture the actions in the scenario, three other entities are introduced:
  7. Sizmik I
  8. The Turkish Navy
  9. The Greek Navy and the Greek Armed Forces

These are all candidates for player's roles in the experiments to be conducted in the future. Two more entities are needed: the trigger for the scenario to start depicted by the IN node and the gathering of the outcomes in the OUT node. The structure of the model is shown in Fig. 8.6.

Figure 8.6: The organizational structure for the Aegean Sea I scenario.
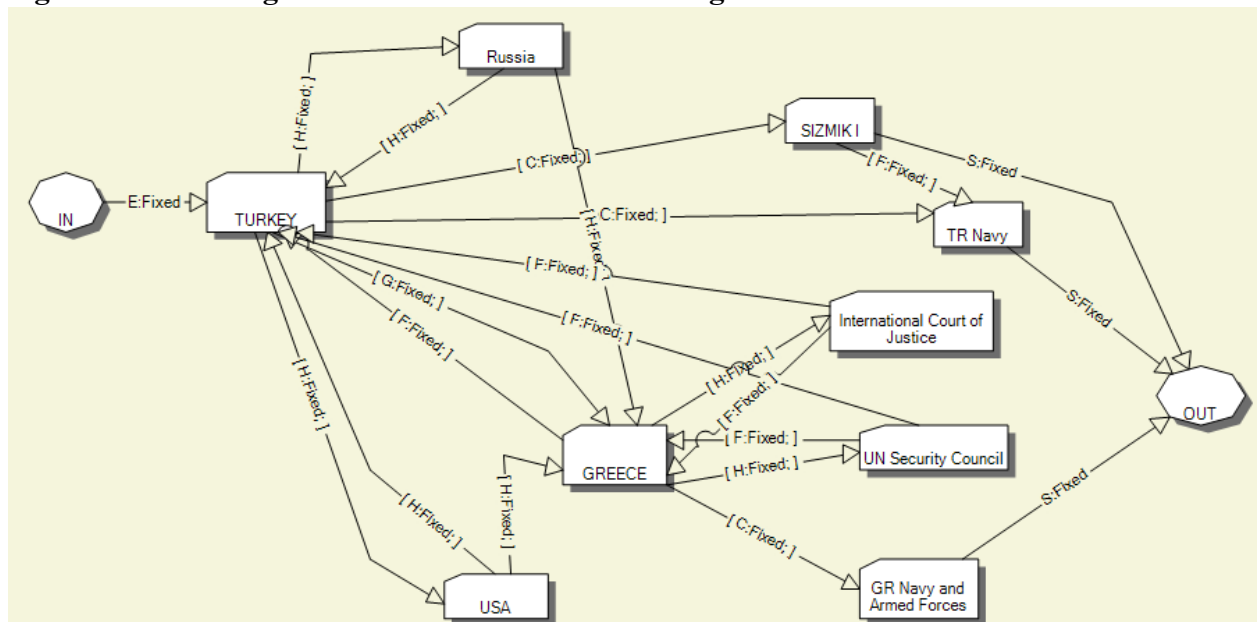
Underlying each node is a five-stage model of the interaction decision node. This model is shown in Fig. 8.7. The first stage is the Situation Assessment (SA) stage that receives input

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[68] For a detailed description of CAESAR III see Levis (2014) and Levis (2005).

from the environment or other decision nodes. The SA stage generates an assessment that is transmitted to the Information Fusion (IF) stage and can be shared with other decision-making nodes. The IF stage can receive situation assessments from other nodes and fuse the information together. This information is then processed by the Task Processing (TP) node. The Response Selection (RS) stage is where the decision is made. However, it is preceded by the Command Interpretation (CI) stage where commands from supervisory decision makers restrict the options for response selection.

Figure 8.7: The five-stage interacting decision making node.
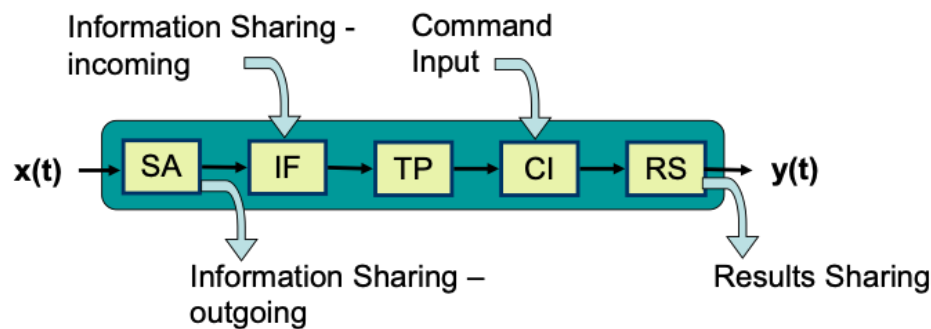
The next step is to model the admissible interactions between decision making (DM) nodes. Six types of interactions have been defined that are consistent with the five stages of a DM node, four of them between DMs and two between the organization and the external environment. They interactions between DMs are:

F_{ij} represents the sending of the situation assessment carried out by DM_i to the Information Fusion (IF) stage of DM_j

G_{ij} represents the sending of DM_i's output (response) as an input to the Situation Assessment (SA) stage of DM_j

H_{ij} represents the sending of DM_i's output (response) as an input to the Information Fusion (IF) stage of DM_j

C_{ij} represents the sending of DM_i's output (response) as a command or guidance to the Command Interpretation stage of DM_j

The two interactions with the external environment:

E   Inputs from the external environment
S   Outputs to the external environment

With these definitions we can re-examine the organizational structure and identify the types of interactions that have been designed. Consider first the node representing Turkey.

1. It receives an input from the external environment, the IN node, denoted by E
2. Turkey sends a command input (C) to the ship Sizmik 1.
3. Turkey sends a command input (C) to the Turkish navy
4. Turkey's actions are inputs to the SA stage of Greece (denoted by G)
5. Turkey receives SA information from Greece (denoted by F)
6. Turkey receives situation assessment from the UN Security Council (F interaction)
7. Turkey receives situation assessment from the International Court of Justice (F interaction)
8 and 9. Turkey shares its decisions with US and Russia (H interactions)
10 and 11. Turkey receives responses from US and Russia (H interactions)

Similar interpretations are made about the interactions of all the other nodes. These interactions form the basis for establishing the protocols for interaction among the human participants in an actual experiment. These particular interactions in Fig. 6 are notional. The interactions that will be designed for the actual experiment must conform to two constraints to avoid deadlock:

Constraint R_1: There can be at most one link from the RS stage of a DM to each one of the other DMs, i.e., for each i and j, only one element of the triplet {F, G, H} can be non-zero
Constraint R_2: Information fusion can only take place at the IF and CI stages. Consequently, the SA stage of each DM can have only one input.

2. South China Sea: The Second Thomas Shoal Case 2014

Background: The Second Thomas Shoal (2TS) is located south-east of Mischief Reef in the north-eastern part of the Spratly Islands. There are no settlements north or east of it. It is a tear-drop shaped atoll, 11 nautical miles (20 km; 13 mi) long North-South and fringed with coral reefs The coral rim surrounds a lagoon which has depths of up to 27 meters (89 ft) and is accessible to small boats from the East. See Fig. 9.8.

Figure 8.8: The Second Thomas Shoal.
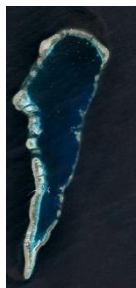
Excerpt from Case 6: Second Thomas Shoal Incident (2014) in Green et al (2017):

"In May 2013, Chinese coast guard vessels established a near continuous presence near the Philippines' outpost at Second Thomas Shoal in the Spratly Islands. Beijing accused Manila of seeking to build "new structures" aboard the BRP Sierra Madre— a dilapidated warship deliberately run aground on the reef in 1999— allegedly in violation of multiple guarantees that the Philippines would tow it away. On March 9, 2014, Chinese patrol ships harassed Philippine vessels likely carrying construction materials to Second Thomas Shoal. With U.S. diplomatic support, Manila resupplied the outpost with airdrops and recognized the Sierra Madre as a permanent Philippine installation for the first time. On March 29, another Philippine ship carrying normal supplies and foreign journalists succeeded in reaching Second Thomas while U.S., Philippine, and Chinese aircraft circled overhead. A Chinese coast guard cutter crossed the bow of the supply ship in an effort to block its path, but did not pursue the vessel when it entered the shallow waters around the shoal. Since it barely rises above water at low tide and sinks below the surf at high tide, the shoal is classified at a "low-tide elevation" under the UN Convention on the Law of the Sea. Under Article 13 of the convention, such a feature does not enjoy any entitlement to sovereignty or other maritime rights, such as a territorial sea, exclusive economic zone, or continental shelf."

A CNN report of April 22, 2020 stated that the Philippines has filed a diplomatic protest over China's creation of two new districts of Sansha City, the southernmost city of Hainan province, which cover features in the disputed South China Sea, including the Philippine-claimed Spratly Islands, Scarborough Shoal and Fiery Cross Reef.

2.1 Modeling the Second Thomas Shoal Crisis

Because over the years there have been many diverse crises in the Spratly Islands area, a different approach was taken in developing the Timed Influence Net (TIN) model. A generic model was created first that contains all identified actions and reactions of the three principal actors. These were determined from reviewing published reports as well as newspaper articles from the Philippines and the US reporting on the various crises. These included documents that were available from the Center for the Study of Terrorism and Responses to Terrorism at the University of Maryland (START) and from the DoD Strategic Multi-layer Assessments (SMA) Program.
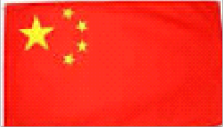
This generic Influence Net is very complex and is not operational. It is used as the basis from which specialized models are extracted to analyze specific Use Cases. The model is static (no time delays) and the strengths of the relationships are not inserted. The model was developed using Pythia (see the Appendix for a description of the tool).

In this model three Actors are considered: The Philippines (PH), the People's Republic of China (PRC), and the United States (US). Each actor has a set of available actions (See Table 8.5). What is interesting and challenging in this model is that many of these actions can be either initiating actions or responses to another actor's actions. The sequencing can be modeled using appropriate delays. For example, the Philippines may initiate the transport of building materials and the PRC then blocks access to the shoal by deploying Navy or Coast Guard assets. Conversely, the PRC may block access to the shoal by sea (through Navy or Coast Guard assets) thus forcing the Philippine Navy to resupply the Sierra Madre through air drops. This complexity is reflected in the many relationships that are represented by links in the model. However, only some of these relationships are active for any particular scenario.

Two objectives (outcomes) are considered for the two illustrative Use Cases that were analyzed.:
(a) The Philippines maintains military presence in the Second Thomas Shoal (2TS)
(b) The PRC continues to take provocative actions.

Table 8.5: Possible Actions by the three Actors.

Philippines (PH)	PH resupplies the Sierra Madre by Air drops
	PH resupplies the Sierra Madre by Sea
	PH reinforces Sierra Madre military presence
	PH repairs the Sierra Madre
	PH brings in replacement ship
	PH brings in building materials
	PH sends message to PRC
	PH appeals to ASEAN
	PH requests US support

China (PRC)	PRC Navy blocks access to Second Thomas Shoal (2TS)
	PRC Coast Guard blocks access to Second Thomas Shoal (2TS)
	PRC Coast Guard escort fishermen to 2TS area
	PRC endangers Air drops to the Sierra Madre
	PRC declares Spratleys to be part of PRC

USA	US aids PH in Air drops
	US supports PH in ASEAN
	US conducts FON cruises in 2TS area
	US Navy escorts resupply to 2TS

2.2 Technical Approach

The general technical approach consists of three steps. In this report only the first two steps are described.

Step 1: Use Case development.
Since there are many possible scenarios, a set of distinct Use Cases are developed. Each Use Case is expressed as a subset of the general model. This is accomplished primarily by setting the influences on the non-active links to 0 and by adding or subtracting some specialized nodes. For each Use Case, Steps 2 and 3 are carried out.

Step 2: Static analysis.
Consider the Use Cases developed in Step 1 and populate the model with the appropriate influence values on the active links for each scenario. Run the Static propagation algorithm to determine the marginal probabilities of the two final effects or outcomes. Conduct sensitivity analysis with respect to the initiating actions and with respect to influences. Run the SAF optimization algorithm to find the optimal Courses of Action. Document the results.

Step 3: Dynamic analysis.
Introduce time delays in the nodes to indicate when they become active to reflect each one of the 2 Use Cases. Add delays on the links to reflect times it takes for assets to execute their actions. Consider different time dependent courses of action and execute them to obtain the probability profiles of nodes of interest (i.e., p(t) vs. t). Investigate the effect of time delays in the courses of action on the probability profiles. Document the results.

2.3 Use Case 1

Use Case 1 Narrative: The Philippine Navy is attempting to resupply the Sierra Madre by sea. A nearby unit of the PRC Navy moves to intercept and block the resupply ship. PH appeals to ASEAN and requests US support. The US supports the PH complaint at ASEAN and directs a unit of the US Navy to conduct a Freedom of Navigation (FON) exercise near 2TS where the PRC Navy units are moving. The question that is posed is twofold: What is the probability as a result of this set of events that PH will maintain its presence in 2TS and the PRC continues to take provocative actions?

Use Case 1: Philippines resupplies Sierra Madre by sea

Characteristic Information

Goal In Context:	Explore the effect of PRC reaction to PH action
Scope:	US actions in this situation
Level:	Primary
Pre-Condition:	PRC Navy is monitoring the situation at 2TS
Success End Condition:	PH maintains presence in 2TS and PRC decreases provocative actions
Minimal Guarantees:	Direct confrontation between US and PRC Navies is avoided
Primary Actor:	The Philippines (PH)
Trigger Event:	The Sierra Madre needs supplies

Main Success Scenario

Step	Entity	Action Description
1	PH	Initiates Resupply of 2TS by sea
2	PRC	Navy vessels move to block assess to 2TS
3	PH	Appeals to ASEAN
4	PH	Requests US support
5	US	Supports PH in ASEAN
6	US	Conducts FON in 2TS
7	PH	Provides supplies to 2TS

Scenario Variations

Step	Variable	Possible Variations
3	ASEAN	PH does not appeal to ASEAN
4	US Support	PH does not request US help
6	FON mission	US decides not to conduct FON mission

The model for the main success scenario of Use Case 1 is shown in Fig. 8.9.

Figure 8.9: Influence Net of Use Case 1 for the main success scenario with results from Static analysis.
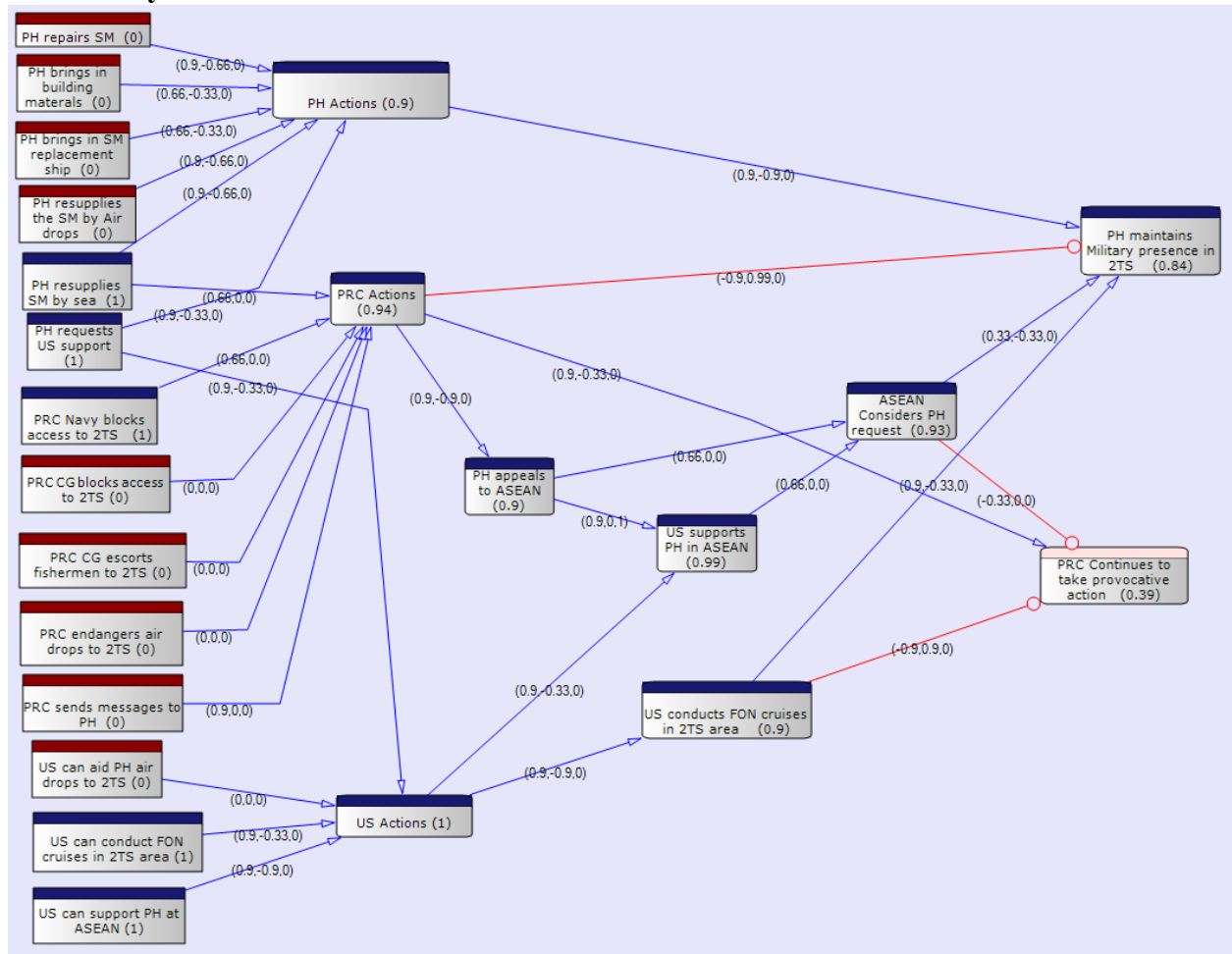
If the actions depicted as square nodes with dark blue stripes are taken, then the probability that the Philippines will maintain military presence in the Second Thomas Shoal (2TS) is 84% and the probability that the PRC will continue to take provocative actions drops to 39%.

Let us consider now the <u>first variation</u>: PH does not appeal to ASEAN and, consequently, the US does not support PH at ASEAN. In that case, as shown in Fig. 8.10, the probability that the Philippines will maintain military presence in the Second Thomas Shoal (2TS) remains essentially the same (83%) but the probability that the PRC will continue to take provocative actions increases to 53%.

In the <u>second variation,</u> the PH does not require support by the US and the US does not take any action. The only action taken by the Philippines is to appeal to ASEAN where the US supports the appeal. This drastically changes the results as shown in Fig. 8.11. The probability that the Philippines will maintain military presence in the Second Thomas Shoal (2TS) drops to 16% but probability that the PRC will continue to take provocative actions increases to 89%.

Figure 8.10: Influence Net of variation 1 of Use Case 1.
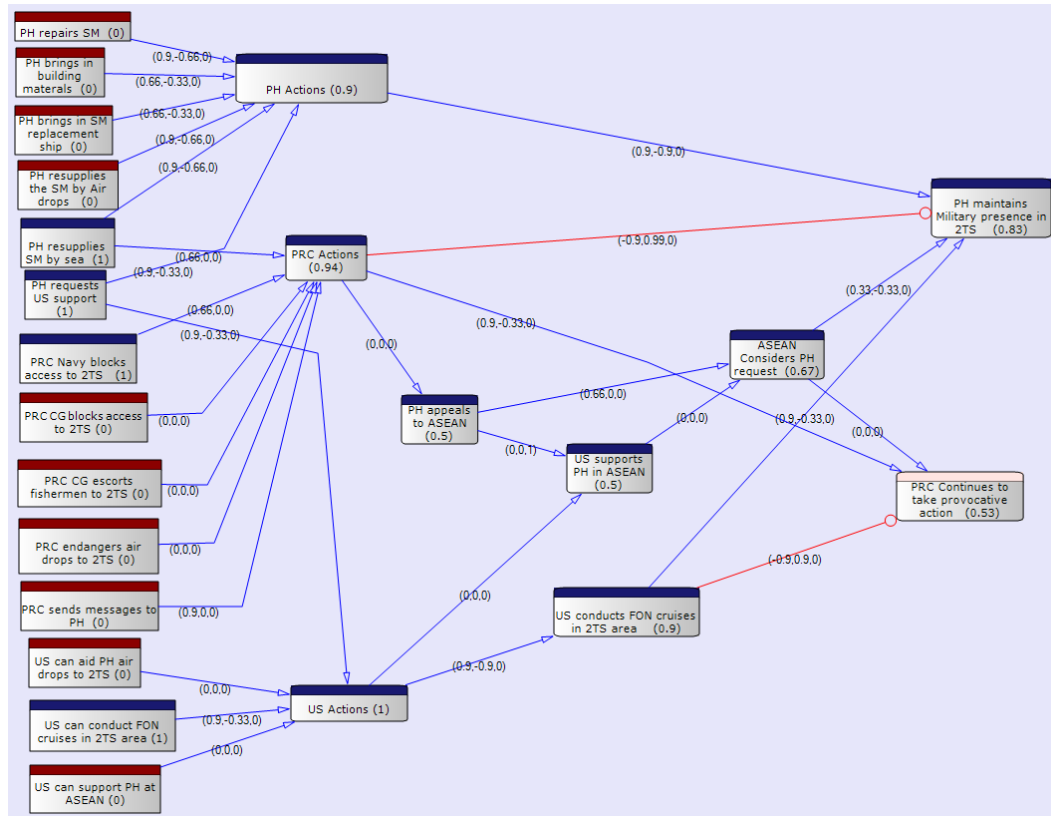
In the <u>third variation</u> PH requests help from the US but the US decides not to conduct a Freedom of Navigation (FON) mission. In this case it becomes very clear that the conduct of FON missions by the US Navy in the vicinity of 2TS is critical for the PH remaining on 2TS and for limiting the PRC provocations. The probability that the Philippines will maintain military presence in the Second Thomas Shoal (2TS) is at 60% but the probability that the PRC will continue to take provocative actions is at 89%, the same as in the second variation, even though ASEAN intervention was requested. See Fig. 8.12.

Figure 8.11: Influence Net of variation 2 of Use Case 1.
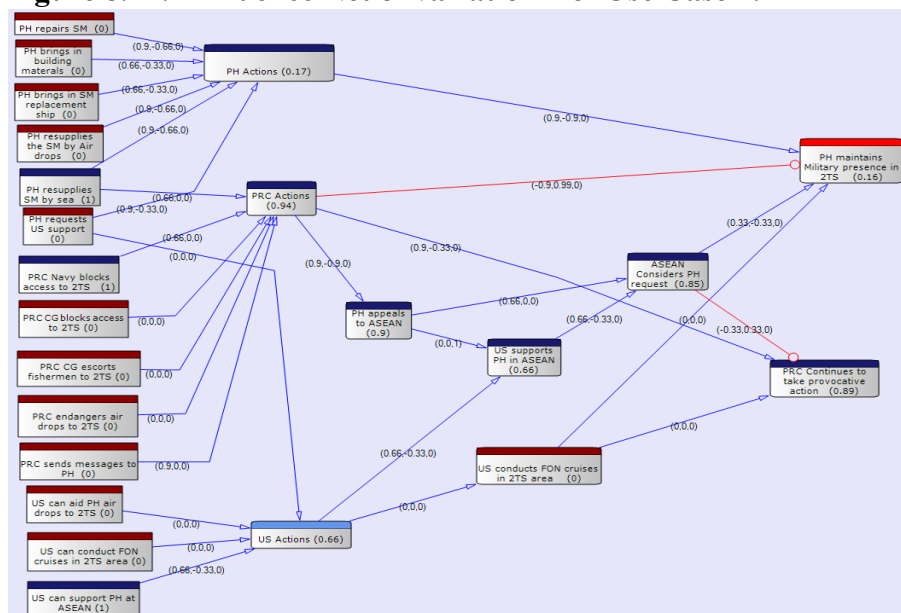
Figure 8.12: Influence Net of variation 3 of Use Case 1.
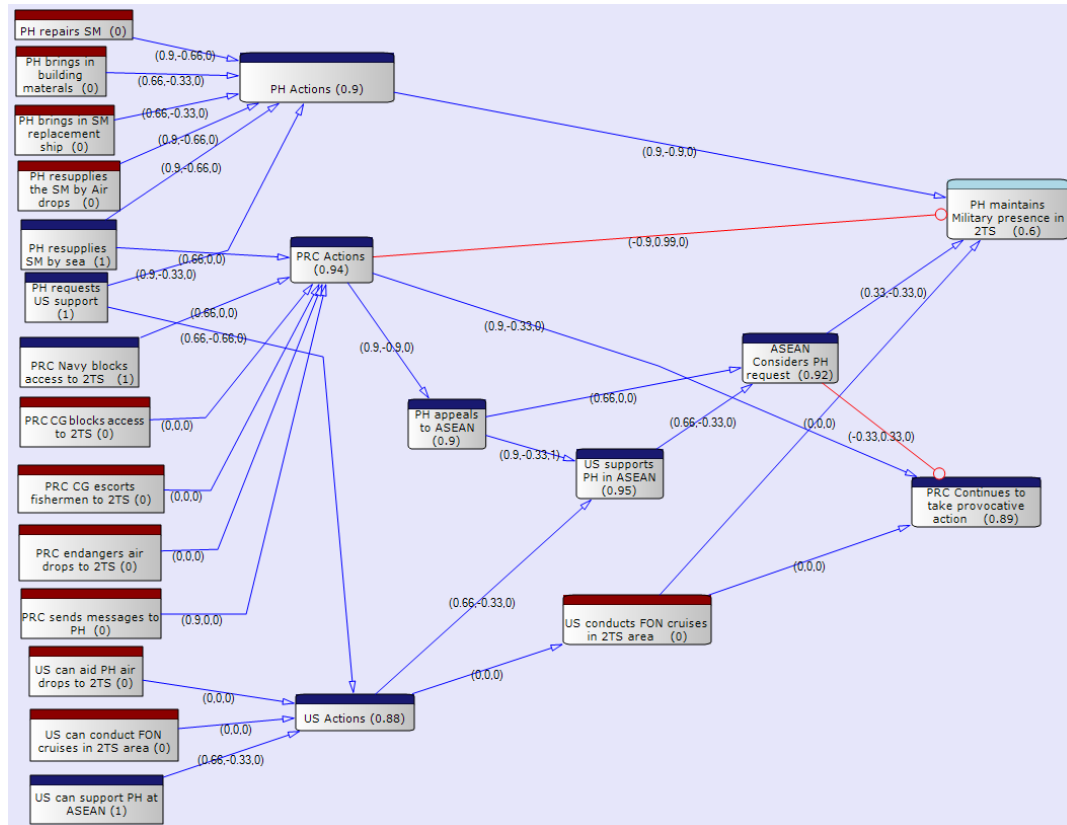
To confirm the interpretation of these results one can conduct a sensitivity analysis of the outcomes with respect to the initiating actions. The results for the third variation are shown in Table 8.6. It is clear that none of the actions by PH and US with ASEAN have much impact on PRC's objectives. Conversely, sensitivity analysis of the PH objective to maintain military presence at 2TS is very much dependent on requesting US help. See Table 8.7.

Table 8.6: Sensitivity analysis of "PRC continues to take provocative actions" to active inputs.

Actions Name	Lower Probability	Upper Probability	Differenc
PH resupplies the SM by Air drops	0.889	0.889	0
PH resupplies SM by sea	0.814	0.889	0.075
PH repairs SM	0.889	0.889	0
PH brings in SM replacement ship	0.889	0.889	0
PH brings in building materals	0.889	0.889	0
PH requests US support	0.89	0.889	-0.001
PRC Navy blocks access to 2TS	0.814	0.889	0.075
PRC sends messages to PH	0.889	0.924	0.035
PRC CG blocks access to 2TS	0.889	0.889	0
PRC CG escorts fishermen to 2TS	0.889	0.889	0
PRC endangers air drops to 2TS	0.889	0.889	0
US can aid PH air drops to 2TS	0.889	0.889	0
US can conduct FON cruises in 2TS area	0.889	0.889	0
US can support PH at ASEAN	0.89	0.889	-0.001

Table 8.7: Sensitivity analysis of "PH maintains military presence on 2TS" to active inputs.

Actions Name	Lower Probability	Upper Probability	Difference
PH resupplies the SM by Air drops	0.602	0.657	0.056
PH resupplies SM by sea	0.216	0.602	0.386
PH repairs SM	0.602	0.657	0.056
PH brings in SM replacement ship	0.602	0.646	0.044
PH brings in building materals	0.602	0.646	0.044
PH requests US support	0.165	0.602	0.437
PRC Navy blocks access to 2TS	0.643	0.602	-0.042
PRC sends messages to PH	0.602	0.582	-0.019
PRC CG blocks access to 2TS	0.602	0.602	0
PRC CG escorts fishermen to 2TS	0.602	0.602	0
PRC endangers air drops to 2TS	0.602	0.602	0
US can aid PH air drops to 2TS	0.602	0.602	0
US can conduct FON cruises in 2TS area	0.602	0.602	0
US can support PH at ASEAN	0.599	0.602	0.003

Dynamic analysis: Introduction of sequencing of actions and delays (of the order of days) produced insignificant variations in the probability profiles of the objective nodes over time.

2.4 Use Case 2

Use Case 2 Narrative: The PRC takes the initiative by sending fishermen to fish in 2TS waters. The fishing boats are escorted by the PRC Coast Guard. The Philippines reacts by sending a formal message to the PRC and making an appeal to ASEAN. To avoid direct confrontation with the PRC Coast Guard, the Philippines attempts to resupply the Sierra Madre at 2TS by air drops. The PRC however endangers the air drops by having helicopters from the Coast Guard interfere with the flights of the PH helicopters. PH asks for help from the US and the US supports the ASEAN appeal, conducts a FON mission and overflies the air drop zone to deter the PRC from interfering with the resupply. All parties try to avoid a direct military confrontation. Finally, the PRC fishermen depart.

Characteristic Information

Goal In Context:	Explore the effect of PH reaction to PRC action
Scope:	US actions in this situation
Level:	Primary
Pre-Condition:	PRC Coast Guard is near 2TS
Success End Condition:	PH maintains presence in 2TS and PRC decreases provocative actions
Minimal Guarantees:	Direct confrontation between US and PRC Navies is avoided
Primary Actor:	PRC
Trigger Event:	PRC fishermen in 2TS waters

Use Case 2: The PRC takes provocative actions

Main Success Scenario

Step	Entity	Action Description
1	PRC	Coast Guard cutters escort PRC fishermen to 2TS waters
2	PH	Sends formal protest to PRC
3	PH	Resupplies the 2ts by Air Drops
4	PRC	Endangers air drops to 2TS
5	PH	Requests US support
6	PH	Appeals to ASEAN
7	US	Supports PH in ASEAN
8	US	Aids PH air drops to 2TS
9	US	Conducts FON missions in 2TS area
10	PRC	Fishermen complete mission and leave

Scenario Variations

Step	Variable	Possible Variations
3	PH	PH does not attempt to resupply 2TS through air drops
5	PH	PH does not request US support but US still supports PH in the ASEAN appeal but does not conduct a FON mission and does support the air drops.

The model for the main success scenario of Use Case 2 is shown in Fig. 8.13.

Figure 8.13: Influence Net of Use Case 2 for the main success scenario with results from Static analysis.
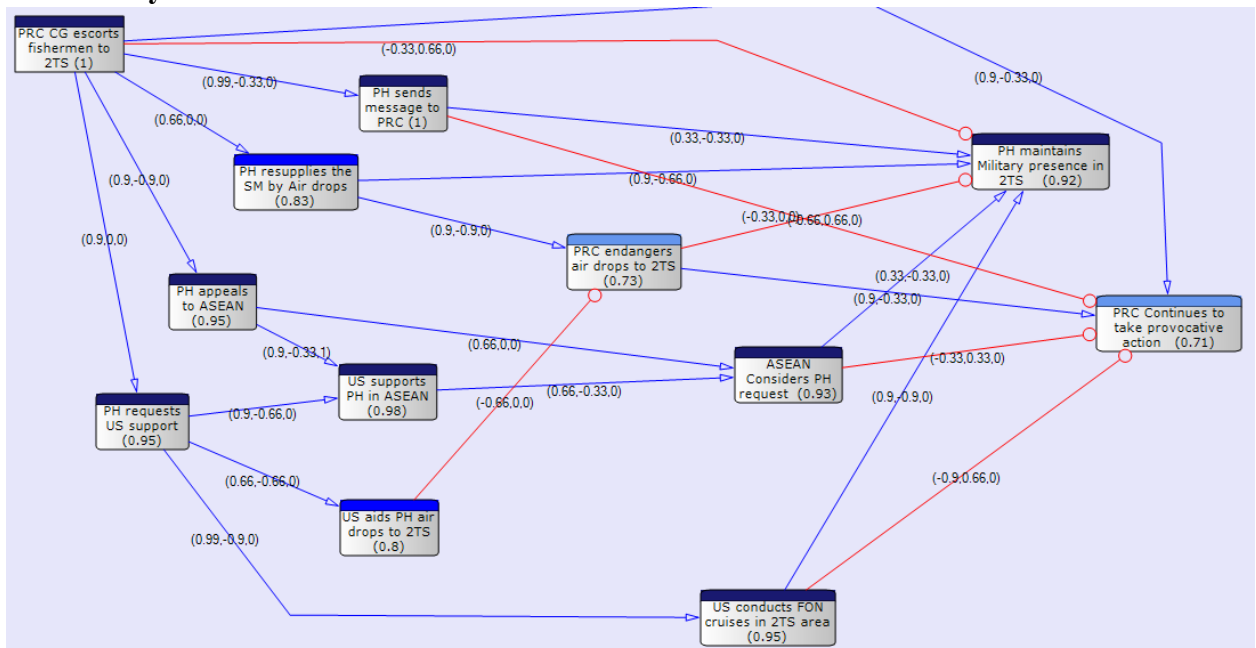
The influence net shows that the Philippines will send a message to PRC with probability 1 but the probability of initiating resupply by air drops is only 83%. The US supports the appeal to ASEAN with probability 98% but the probability of aiding the air drops by sending aircraft in the area is only 80% indicating that there is concern of an accident precipitating a crisis. The final outcome is that as a result of all these actions the Philippines will maintain its military presence in 2TS (at 92%) and the PRC will continue provocative actions (at 71%) since the fishermen completed their actions without major incident.

An interesting result is obtained from sensitivity analysis. There is a single initiating action: PRC CG escorts fishermen to 2TS. If this action is taken the PRC is emboldened to continue provocative actions (probability 71%). But if this action is not taken, then the probability of continuing provocative actions drops to 42%. See Table 8.8.

Table 8.8: Sensitivity analysis of "PRC continues to take provocative actions" to "PRC CG escorting fishermen to 2TS".

PRC Continues to take provocative action			
Actions Name	Lower Probability	Upper Probability	Difference
PRC CG escorts fishermen to 2TS	0.423	0.71	0.286

In the first variation the Philippines does not attempt to resupply 2TS by air drops but takes all the other actions and so does the US. The results are somewhat surprising. The probability that PH will maintain military presence in 2TS is 72% but the probability of the PRC continuing to take provocative action drops to 39%. See Fig. 8.14. One possible interpretation is that the fact that PH does not resupply 2TS may mean that the military presence appears to be well established and not threatened by the presence of the PRC Coast Guard and the fishermen. On the other hand the immediate US Navy Freedom of Navigation mission has a strong deterrence effect.

Figure 8.14: Influence Net of variation 1 of Use Case 2.
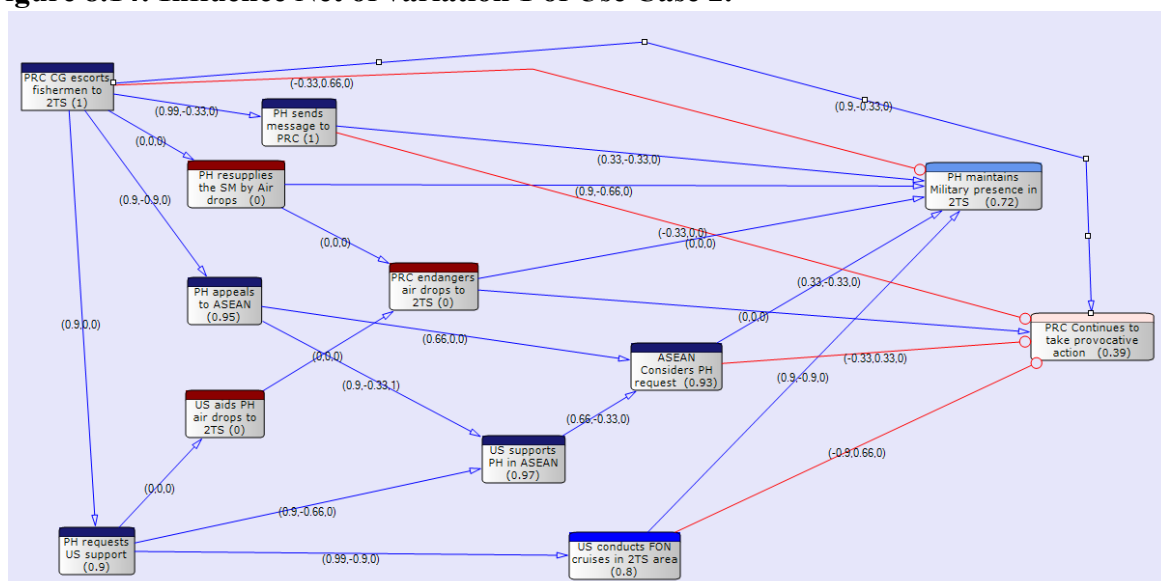
The second variation is a kind of worst case scenario. The Philippines only send a message to the PRC and appeal to ASEAN. The US supports the appeal but takes no other action since PH has not requested help. The result is clear. See Fig. 8.15.

Figure 8.15: Influence Net of variation 2 of Use Case 2.
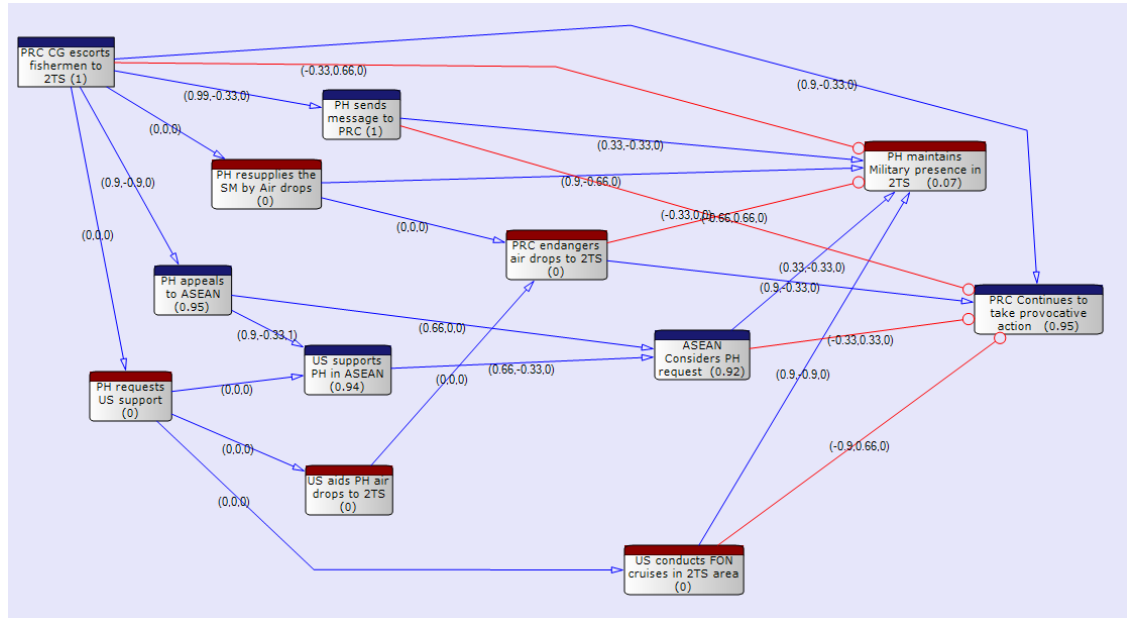
The PRC is emboldened by the fact that neither PH nor the US take any serious action (No FON mission, no resupply) and the probability of continuing to carry out provocative actions to make PH abandon the 2TS goes to 95%. The probability that PH will maintain its military presence drops to 7%.

3. Summary

Both models (each a subset of a more general causal model) shows that if PH and the US do not take strong highly visible actions such as resupplying the military presence in the 2TS and the US Navy conducting FON missions in the area, the ability of PH to maintain a military presence in 2TS becomes very problematic. An emboldened PRC can increase the pressure if it perceives that there is no serious reaction.

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Pythia: A Timed Influence Net Tool

Pythia provides an environment to build graph-based probabilistic cause-and-effect models and to perform several analyses on them. It was developed by the System Architectures Laboratory at George Mason University to aid decision making and Course of Action development and evaluation in complex situations.

The process embodied in *Pythia* consists of four steps and is described in Fig. 8.A1. The first step is the determination of the desired effects: the effects that are of interest whether they are desirable outcomes to be achieved or undesirable outcomes to be avoided.

Figure 8.A1: Process for constructing an Influence Net.
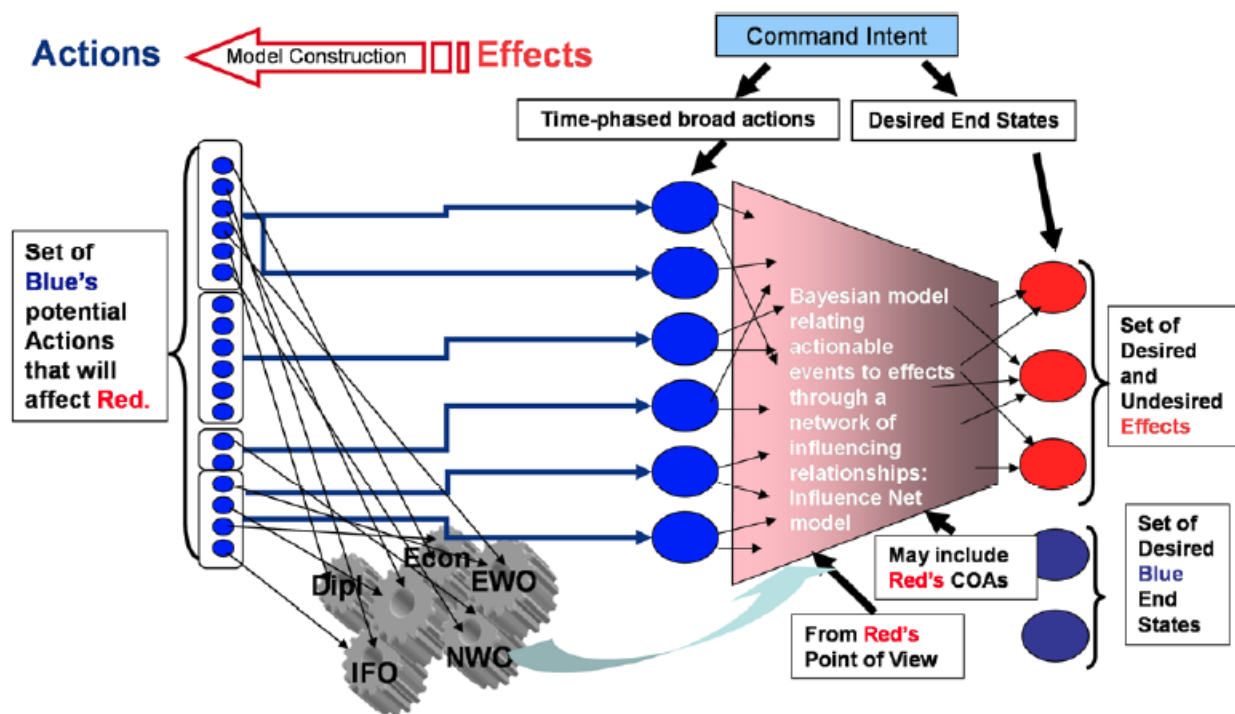
To determine how these effects can be accomplished and what could inhibit their accomplishment, an influence net model is constructed in which complex probabilistic influences between causes and effects and between effects and actions are indicated. The process for constructing the Influence Net starts with the effects on the right (see Fig. 8.A1) and works backwards toward the left. The typical question is: If Red is to make this decision, what factors will influence that decision? These become the input nodes to that effect and the links are assigned "influence strengths". The process continues until the nodes that would influence Red's decisions (or effects) are events that are controlled by Blue (high level Blue actions). This is shown as the large blue ovals in the middle of Fig. 8.A1. These large actions (which can be at the PMEESI level) can then be decomposed further to the left until they become specific tasks or, in the terminology of Influence Nets, actionable events.

If time is introduced, it is possible to indicate the time phasing of the actions and observe the probability of achieving the desired effects change over time. If time is introduced, then the Timed Influence Net features of *Pythia* are used.

It is interesting to note that non-kinetic events can have both a direct influence and an indirect one by acting as force multipliers to the kinetic actions with respect to influencing the achievement of the desired effects.

The influence net model is then used to carry out sensitivity analyses to determine which actionable events, alone and in combination, appear to produce the desired effects. It should be noted that influence nets are static probabilistic models; they do not take into account temporal aspects in relating causes and effects. However, they serve an effective role in relating actions to events and in winnowing out the large number of possible combinations. The result of this step is the determination of a number of actionable events that appear to produce the desired effects and an estimate of the extent to which the goal can be achieved. In addition to sensitivity analysis, *Pythia* includes an algorithm for determining the set of actionable events that can result in the probability of a selected effect to be above a specified threshold. The user selects an outcome/effect and then queries the Influence Net via the algorithm to determine which sets of actionable events (i.e., Courses of Action), if any exist, will produce the selected

The various influences (links) in the Influence Net have processing delays associated with them; an event can take place at time t but its influence may not be felt until t + δt. Also, the actionable events (the root nodes of the Influence Net) may not all take place at the same time, but at different times. *Pythia* provides for entering delays in the influence links and delays in the actionable events. This creates a Timed Influence Net that produces, when executed, not just the final probabilities but probability profiles over time. This enables the creation and evaluation of Courses of Action in which the various actions can be distributed on the timeline so that the best probability profiles can be achieved.

Graphical Interface Features

Pythia allows a user to draw and specify the structure and parameters of an Influence Net and its extension, Timed Influence Nets (TIN). The main graphical interface features are described below:

Actionable events (root nodes) are drawn as rectangles while non-actionable

events are drawn as rounded rectangles thus making them visually distinct. Different link styles are used in *Pythia* to distinguish between positive (blue with pointed

arrow head) and negative (red with round arrow head) influences. Figure 8.A2 shows a simple Influence Net. Node A is an actionable event, has Neutral initial probability, and has a positive influence on Node C (blue arrow). Node B is also an actionable event but has Significantly Less Likely (Dark Red) probability to occur and has a negative influence on Node D (red rounded arrowhead). Node C is a non-actionable event

and is a final node, i.e., there are no outgoing influence arrows. The Blue color indicates that this is Moderately More Likely event.

Figure 8.A2: Nodes, Links, and Color schemes.
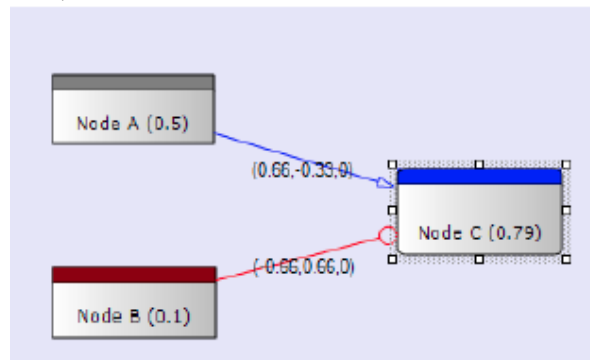
The underlying analytical framework for Influence Nets is Bayesian Nets. Consequently, Conditional Probability Tables (CPT) need to be constructed from the influence values. The CAST logic algorithm is used. The set of values for the influences is shown in Fig. 8.A3.

Figure 8.A3: Link Properties Window.

A color-coding scheme for the nodes is used that assists a user in estimating the likelihood of occurrence of a particular event in an Influence Net. The coloring scheme for the nodes is:
- Significantly More Likely: Darker Blue ($p > 0.88$)
- More Likely: Dark Blue ($0.77 < p < 0.88$)
- Moderately More Likely: Blue ($0.66 < p < 0.77$)
- Slightly More Likely: Light Blue ($0.55 < p < 0.66$)
- Neutral or No Impact: Grey ($0.44 < p < 0.55$)
- Slightly Less Likely: Pink ($0.33 < p < 0.44$)
- Moderately Less Likely: Red ($0.22 < p < 0.33$)
- Less Likely: Dark Red ($0.11 < p < 0.22$)
- Significantly Less Likely: Darker Red. ($p < 0.11$)

Once an Influence Net is completely specified by a user, ***Pythia*** computes the marginal probabilities of all the events in the Influence Net. These probabilities show the likelihood of occurrence of corresponding events in a static (time-independent) situation.

A user can perform two types of sensitivity analyses in ***Pythia***:
- The Sensitivity of Action analysis provides the sensitivity of an effect to actionable events.
- The Sensitivity of Influence analysis provides the sensitivity of an effect to the CAST logic parameters associated with links in an Influence Net.

Pythia allows a user to run the Sets of Actions Finder (SAF) algorithm. The algorithm provides sets of actions that cause the probability of a desired effect to be above a certain threshold. Essentially, it generates the set of COAs that satisfy a performance criterion. A brief description of the SAF algorithm is given in Appendix B.

Once a COA is specified, ***Pythia*** generates probability profiles of selected events. A profile shows the likelihood of occurrences of events over a period of time. The period of time is determined from the COA and temporal information available in the form of link and node delays.

Pythia allows a user to compare up to three courses of actions. The comparison is performed using the probability profile of a variable of interest (e.g., a non-root node) generated from the selected courses of actions.

Pythia allows a user to assign several likelihoods of occurrence of an actionable event at distinct discrete time instances. This feature attempts to capture the persistence of actionable events.

Chapter 9: Modeling and Analyzing Scenarios for the Ukraine – Russia Interactions in the Donbas Region, 2014 - present

Alexander H. Levis

Introduction

This report presents the results of the development of conceptual and computational models (a) to explore the impact of the actions of multiple actors in achieving their goals but avoiding escalation; and (b) to revisit the dynamics of escalation management in scenarios involving competition short of armed conflict, i.e., gray zone conflict. One new case is presented that is very different from the Aegean Sea and South China Sea cases discussed in Chapter 8: the case of the separatist movement in the Donbas region of Ukraine.

1. The Ongoing Donbas Crisis

The conflict between Ukraine and Russia started in 2014 and is continuing to this day. The roots of the conflict go back to the beginning of the post-Cold War period and the independence of Ukraine. The conflict in Eastern Ukraine (the Donbas region) is basically a stalemate but small military actions continue to take place at random times. The history of the conflict is described in Appendix A which contains a copy of the Global Conflict Tracker of the Council on Foreign Relations dated September 24, 2020.

In considering the construction of the model there are two imperatives: (a) the identification of the desirable and undesirable effects or final states that are of interest and (b) the listing of the actions that the key actors included in the model have taken or can take. The technical procedure for constructing the model using the Pythia Timed Influence Net (TIN) tool is presented in Appendix B.

On the basis of the relevant sources (CFR, 2020; CRS, 2020; Atlantic Council, Nov 2019; Atlantic Council, Dec 2019; Kuzio and D'Anieri, 2020; Adamsky, 2015; Perry, 2015; Finkel, 2016) a key objective of Russia is to destabilize the Ukrainian state and bring it under its influence. The objective of the European Union and the US is to deter Russia from further expansion in the Ukraine and bring Ukraine closer to the EU and NATO but not actually including them in either organization. Consequently, the primary effect node has been formulated as "**Ukraine aligns closer to the West**." This is depicted on the right side of the model in Figure 9.1.

Figure 9.1: The structure of the Ukraine Influence Net.
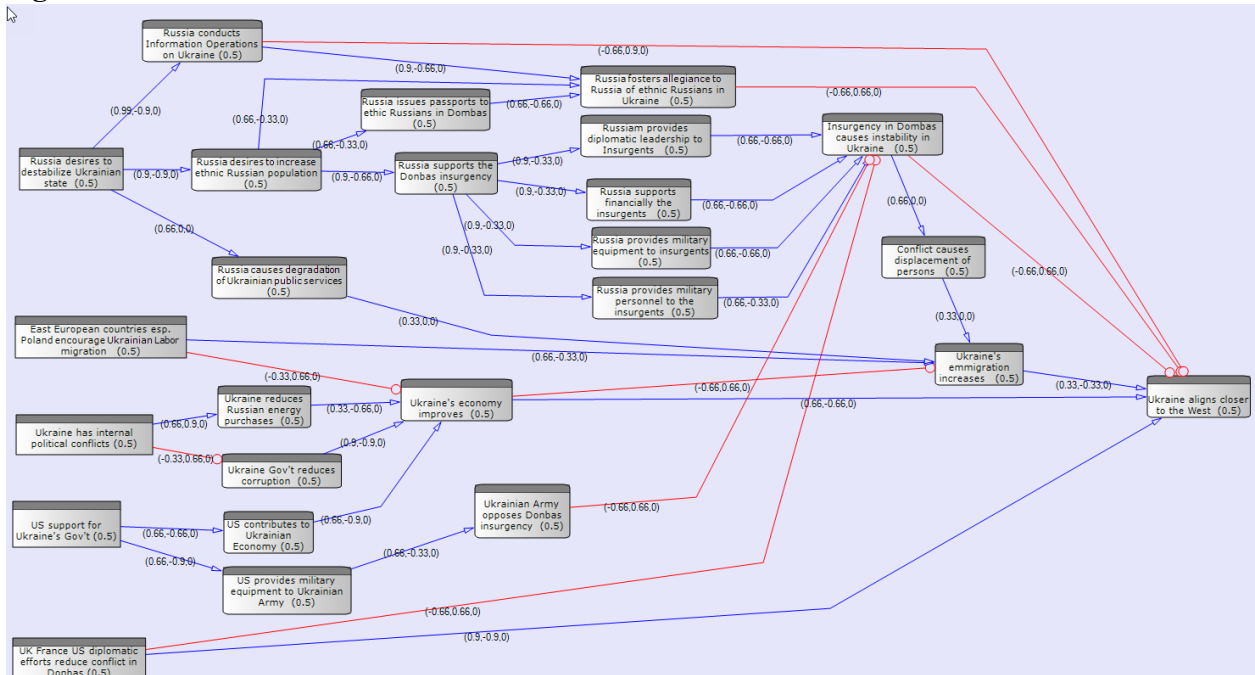
There are multiple actors that influence the outcome. Russia is focused on several objectives: primarily to destabilize the Ukrainian state and increase its ethnic Russian population. A primary means of achieving the objectives is to support the separatists in the Donbas region without attempting to annex the two self-proclaimed republics (Donetsk and Luhansk). The activities of Russia are shown within the red border in Figure 9.2.

Figure 9.2: The Russian influences.
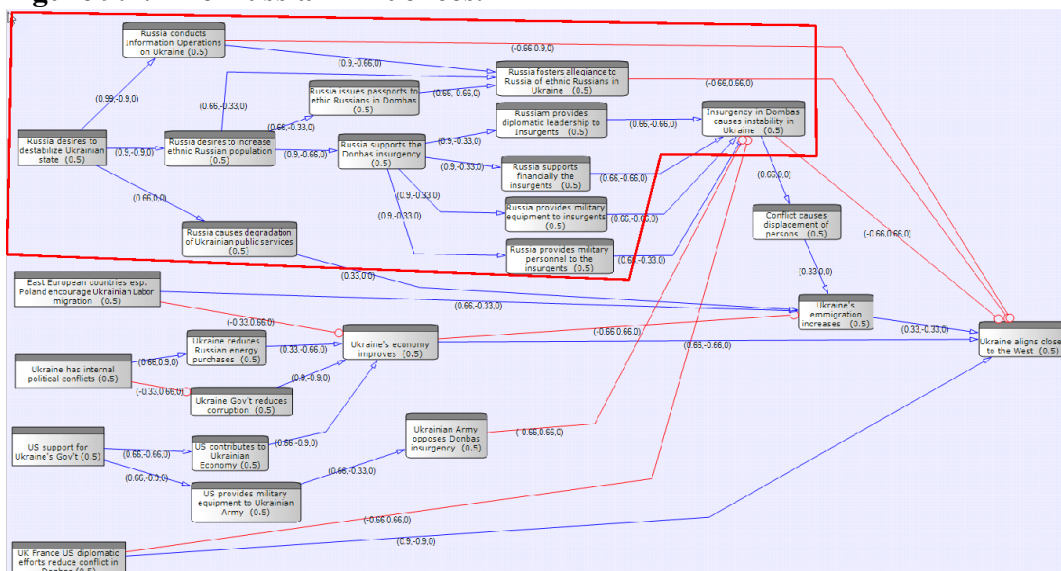
The objectives and actions of the European Union and the U.S. are shown within the blue box in Figure 9.3. Leading this effort by the European Union are the UK and France with the participation of Germany. They collaborate with the US. To keep the node inscription simple, the key actors "UK, France and the US" are indicated even though many other European countries (e.g., Lithuania) contribute to the effort. They include diplomatic actions as well as economic and military support primarily by the U.S. (Levis and Vaughan, 1999).

Figure 9.3: The U.S. and European Union influences.
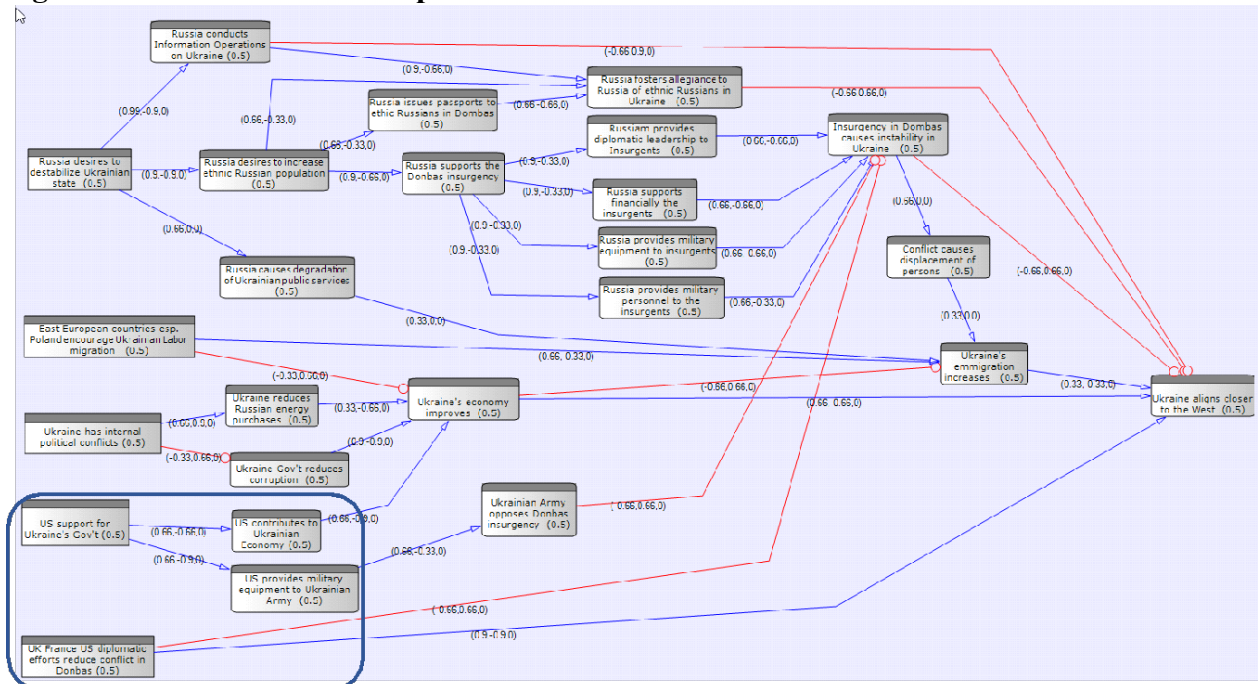
The third set of actors are the Eastern European countries, especially Poland, that accept large numbers of Ukrainian workers that leave Ukraine in search of better paying jobs (wages are about three times higher than in Ukraine). While their money transfers back to Ukraine are helpful, the decrease in skilled labor has a negative impact on the Ukrainian economy (green box in Figure 9.4).

Finally, the internal political conflicts within Ukraine make it difficult for the government to reduce corruption and has a deleterious effect it has on the economy. The activities of these two actors are shown in the yellow box in Figure 9.4.

Figure 9.4: Eastern European (green) and Internal Politics (yellow) influences.
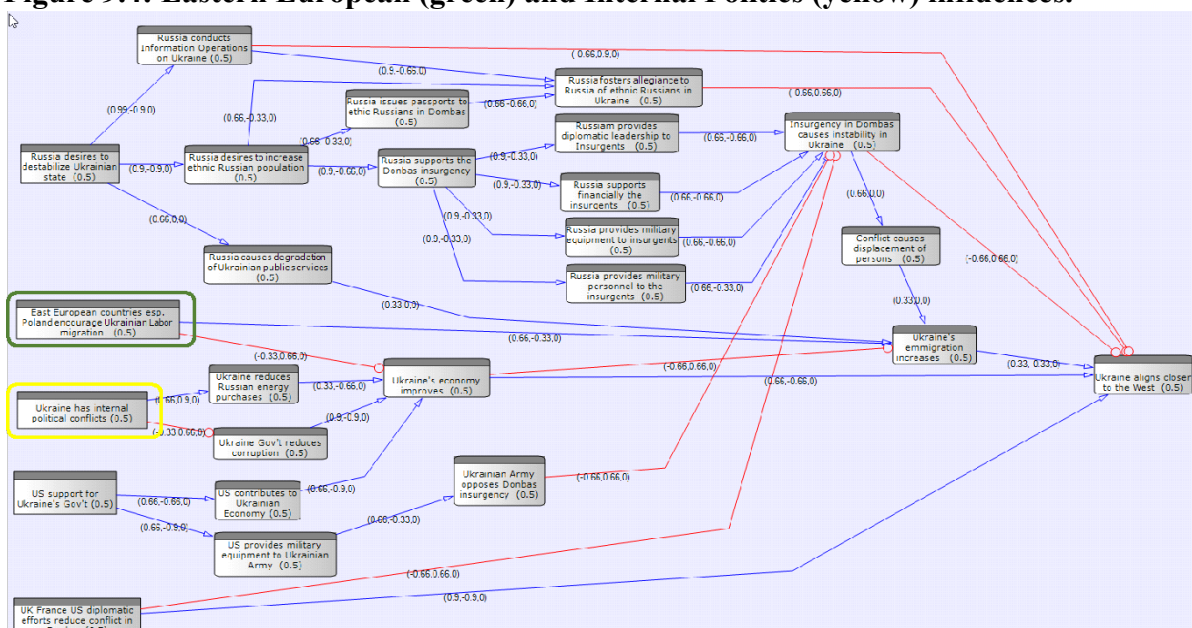
In Fig. 9.5 the primary nodes representing assertions to be explored, actionable events, objectives, and beliefs of the five actor groups are presented. Russia has multiple objectives concerning Ukraine and is taking or supporting a wide variety of actions ranging from military support to the Donbas separatists to encouraging ethnic Russians in Ukraine to obtain Russian passports.

Figure 9.5: The Actors and their primary actions.

RUSSIA	Russia desires to destabilize Ukrainian state	Russia conducts Information Operations on Ukraine
		Russia desires to increase ethnic Russian population
		Russia fosters allegiance to Russia of ethnic Russians in Ukraine
		Russia issues passports to ethic Russians in Donbas
		Russia supports the Donbas insurgency
		Russia provides diplomatic leadership to Insurgents
		Russia supports financially the insurgents
		Russia provides military equipment to insurgents
		Russia provides military personnel to the insurgents
		Russia causes degradation of Ukrainian public services
UKRAINE	Ukraine has internal political conflicts	Ukraine reduces Russian energy purchases
		Ukraine Gov't reduces corruption
USA	US support for Ukraine's Gov't	US contributes to Ukrainian economy
		US provides military equipment to Ukrainian Army
		UK France US diplomatic efforts reduce conflict in Donbas
Eastern EUROPE		East European countries esp. Poland encourage Ukrainian Labor migration

In the next section various Use Cases are explored in order to assess the implications of the model.

2. Use Cases

Four Use Cases are explored. The first two represent the extreme situations to test the model in terms of whether the results it produces are plausible. The third Use Case represents the current situation while Use Case 4 explores the impact of the Ukrainian government succeeding in curbing corruption and improving the economy. Finally, an optimization algorithm in the Pythia tool is used to explore the conditions under which the probability of Ukraine aligning closer to the West is 80% or higher.

2.1 Use Case 1

In the first one, it is assumed that Russia acts with probability 1 but neither the US support for Ukraine nor the UK/France/US diplomatic efforts take place. The emigration continues with probability 1 and the internal political problems in Ukraine are not resolved. The results

are shown in Fig. 6. The coloring scheme (see Appendix B) makes the results evident. Dark blue indicates very high probability while dark red indicates very low probability.

Figure 9.6: Results for Use Case 1.
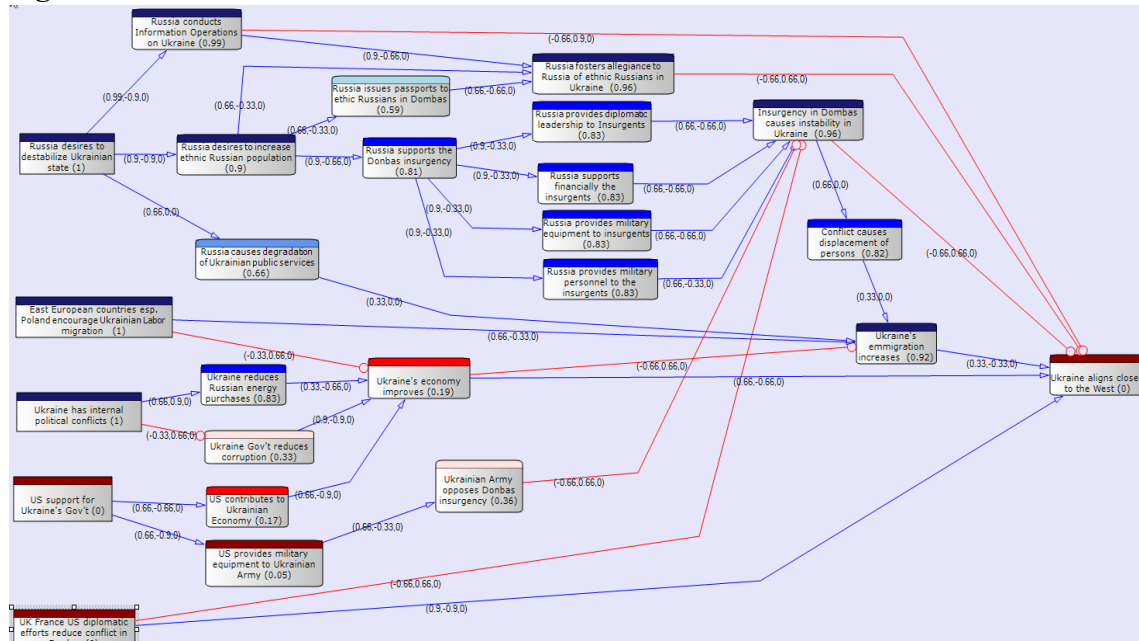
The results are as expected: The insurgency in Donbas continues to cause instability in Ukraine with probability 95%, Ukraine's emigration has probability 92% and the probability of Ukraine aligning with the West drops to 0.

2.2 Use Case 2

In this case, the extreme opposite is considered (Fig. 9.7). Russia does not support the Donbas separatists at all and the US and the European Union support the Ukrainian government. Again, the results are as expected. In this extreme case, Ukraine aligns with the West with probability 1. The insurgency in Donbas continues to create problems but its probability has been reduced to 16%. The probability that the Ukrainian economy will improve is at 32% and the exodus of the labor force continues unabated (prob. 82%).

Figure 9.7: Results for Use Case 2.
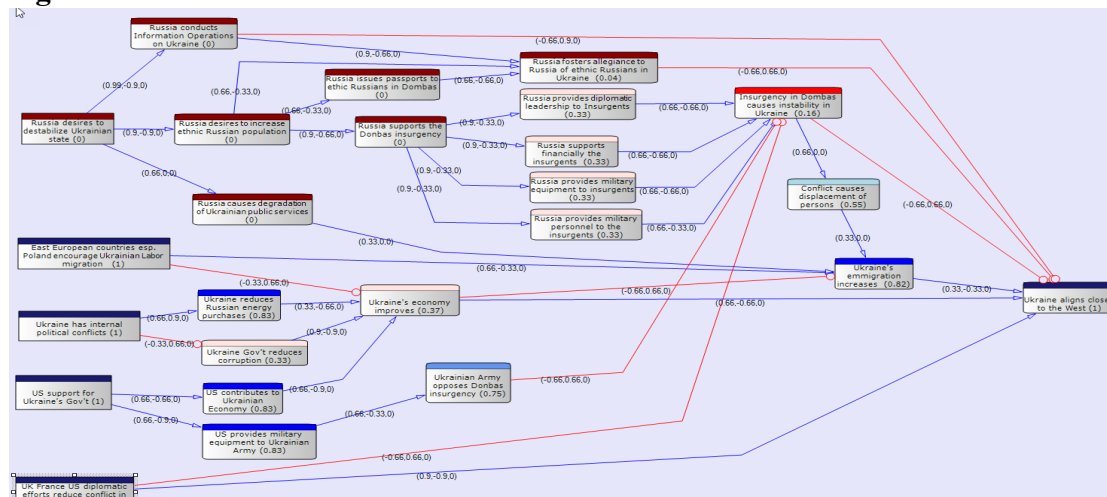
2.3 Use Case 3

In this Use Case all Actors are active with probability 1 (Fig. 9.8). This is close to the current situation when Russia continues to support the Donbas separatists, the internal situation with respect to corruption is not improving sufficiently to help the economy and both the US and the European Union support the Ukrainian government. While the West has imposed some sanctions on Russia they do not appear to have an effect in this case and have not been included in the model.

2.4 Use Case 4

In this Use Case, all external actors continue to execute their approaches, but the Ukrainian government succeeds in suppressing political discord and passing effective anti-corruption legislation.

Figure 9.8: Results for Use Case 3.
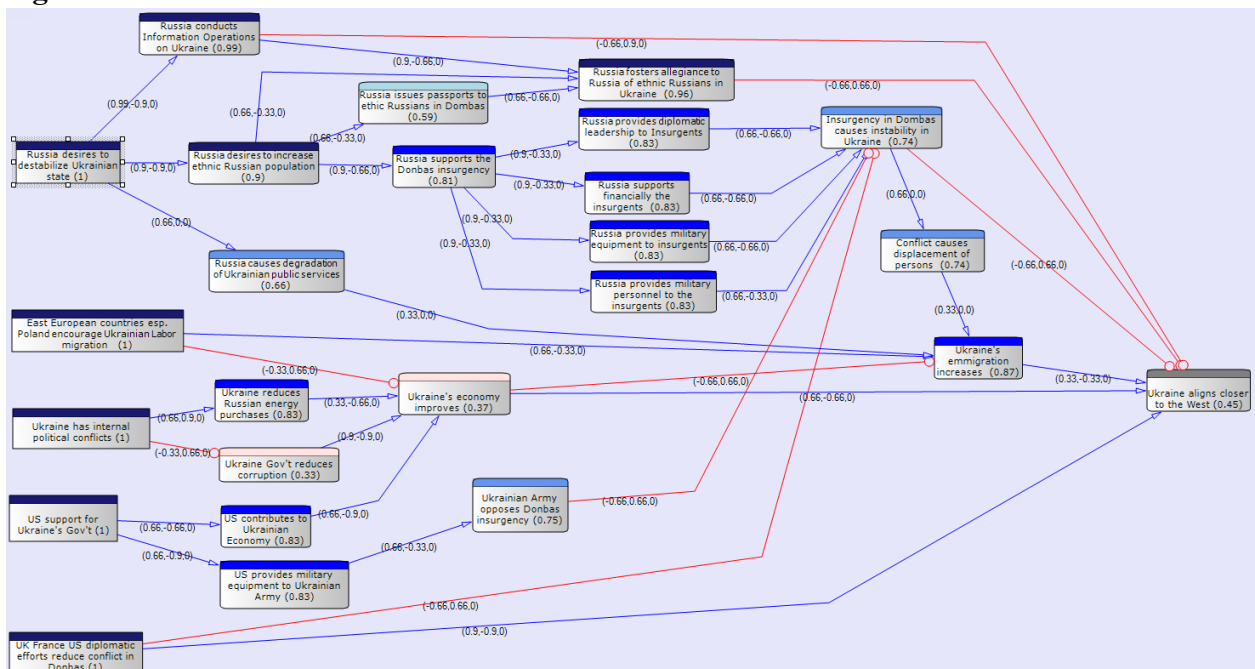
The results in Fig. 9.9 show clearly the effect of corruption on the economy. In the substantial decrease in corruption (78% probability) there is a 72% probability that the economy improves. The labor exodus decreases a little (from 82% to 78%) but that is to be expected because it will take time until wages rise to Eastern European levels. However, in this case, Ukraine has a probability of 60% to align with the west.

Figure 9.9: Results for Use Case 4.
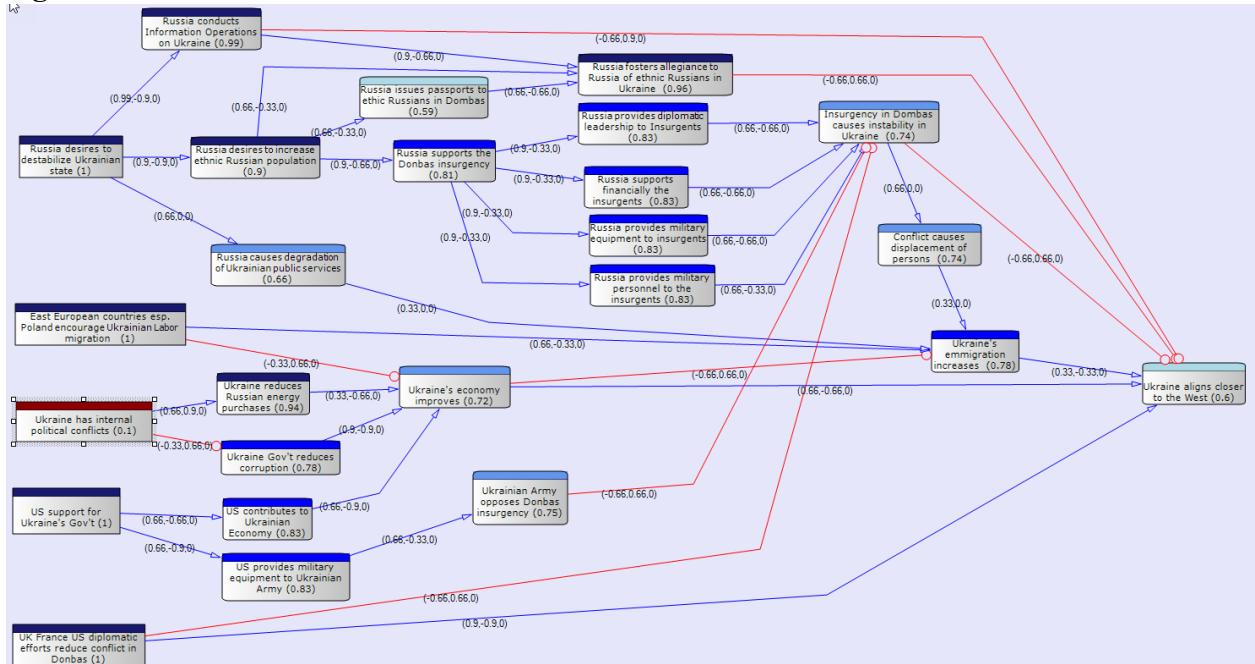
The Pythia tool contains an optimization algorithm that allows the analyst to determine all the actions of the Actors that will result in a probability equal or higher to one specified for a particular node of the Influence Net. Consider the final node "Ukraine aligns closer to the West." What actions would lead to this outcome having a probability 80% or higher? The results are shown on Fig. 9. On the left column are the five actions by the external Actors. On the middle column is the set of actions that will achieve the desired objective. T stands for True (i.e., prob. 1) and F for False (prob. 0).

The first sequence FTFFF is interpreted as follows. Only Action #2, "UK/France/US diplomatic efforts reduce conflict in Donbas" takes place; all the others are set at 0. Under these conditions, the probability of Ukraine aligning with the West is 99.7%. Note that Russia is totally inactive in this case. Indeed, all the cases for which the probability of this outcome is 80% or more are ones in which Russia withdraws its multi-faceted support of the Donbas separatists and stops encouraging ethnic Russians in Ukraine to align with Russia.

Figure 9.10: Combination of actions that lead to a probability higher than 80% for Ukraine aligning closer to the West.

This analysis leads to the question of how sensitive are the results (the outcome in this case) to the various actions by the Actors.

3. Sensitivity Analysis

Use Case 3 was selected as the basis for the sensitivity analysis. Sensitivity is computed by setting the particular action at 0 (F) and computing the outcome probability while all other primary action probabilities remain the same and then setting the probability of that action to 1 (T) and recomputing the outcome. The difference between the two computed values indicates the sensitivity. Its absolute value ranges between 0 and 1. The results are shown in Fig. 11. As expected, the outcome is most sensitive to Russia's actions (0.552 in the table) with the UK/France/US diplomatic efforts being a close second (0.437). The emigration of labor to Eastern European countries has very little impact on the outcome (0.041).

Figure 9.11: Sensitivity of outcome "Ukraine aligns closer to the West" with respect to primary actions by actors.

Sensitivity Analysis

Sensitivity to Actions   Sensitivity To Influences

Select the action whose sensitivity is to be monitored:

Ukraine aligns closer to the West

Actions Name	Lower Probability	Upper Probability	Difference
East European countries esp. Poland encourage Ukrainian Labor migration	0.486	0.445	-0.041
UK France US diplomatic efforts reduce conflict in Donbas	0.008	0.445	0.437
Russia desires to destabilize Ukrainian state	0.997	0.445	-0.552
US support for Ukraine's Govt	0.32	0.445	0.125
Ukraine has internal political conflicts	0.617	0.445	-0.172

Export to Excel   Perform Sensitivity Analysis   Cancel

Conclusion

An Influence Net model has been constructed to explore strategy alternatives for the Russia-Eastern Ukraine conflict with the objective of deterring escalation of the conflict. At this time none of the multiple Actors involved are trying to escalate. It is clear from the model (and in reality) that the driver of the conflict is Russia but there are other factors internal to Ukraine that make resolution of the conflict difficult. Discontinuing the ongoing efforts by the European Union and the US to support Ukrainian independence can cause a rapid deterioration of the situation and benefit Russia.

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Appendix A

Recent Developments

The conflict in eastern Ukraine has transitioned to a stalemate after it first erupted in early 2014, but shelling and skirmishes still occur regularly, including an escalation in violence in the spring of 2018.

Since taking office, the Donald J. Trump administration has continued to pressure Russia over its involvement eastern Ukraine. In January 2018, the United States imposed new sanctions on twenty-one individuals and nine companies linked to the conflict. In March 2018, the State Department approved the sale of anti-tank weapons to Ukraine, the first sale of lethal weaponry since the conflict began, and in July 2018 the Department of Defense announced an additional $200 million in defensive aid to Ukraine, bringing the total amount of aid provided since 2014 to $1 billion.

In October 2018, Ukraine joined the United States and seven other North Atlantic Treaty Organization (NATO) countries in a series of large-scale air exercises in western Ukraine. The exercises came after Russia held its annual military exercises in September 2018, the largest since the fall of the Soviet Union.

Background

The crisis in Ukraine began with protests in the capital city of Kiev in November 2013 against Ukrainian President Viktor Yanukovych's decision to reject a deal for greater economic integration with the European Union. After a violent crackdown by state security forces unintentionally drew an even greater number of protesters and escalated the conflict, President Yanukovych fled the country in February 2014.

In March 2014, Russian troops took control of Ukraine's Crimean region, before formally annexing the peninsula after Crimeans voted to join the Russian Federation in a disputed local referendum. Russian President Vladimir Putin cited the need to protect the rights of Russian citizens and Russian speakers in Crimea and southeast Ukraine. The crisis heightened ethnic divisions, and two months later pro-Russian separatists in the Donetsk and Luhansk regions of eastern Ukraine held a referendum to declare independence from Ukraine.

Violence in eastern Ukraine between Russian-backed separatist forces and the Ukrainian military has by conservative estimates killed more than 10,300 people and injured nearly 24,000 since April 2014. Although Moscow has denied its involvement, Ukraine and NATO have reported the buildup of Russian troops and military equipment near Donetsk and Russian cross-border shelling.

In July 2014, the situation in Ukraine escalated into an international crisis and put the United States and the European Union (EU) at odds with Russia when a Malaysian Airlines flight was shot down over Ukrainian airspace, killing all 298 onboard. Dutch air accident investigators concluded in October 2015 that the plane had been downed by a Russian-built surface-to-air missile. In September 2016, investigators said that the missile system was provided by Russia, determining it was moved into eastern Ukraine and then back to Russian territory following the downing of the airplane.

Since February 2015, France, Germany, Russia, and Ukraine have attempted to broker a cessation in violence through the Minsk Accords. The agreement includes provisions for a cease-fire, withdrawal of heavy weaponry, and full Ukrainian government control throughout the conflict zone. However, efforts to reach a diplomatic settlement and satisfactory resolution have been unsuccessful.

In April 2016, NATO announced that the alliance would deploy four battalions to Eastern Europe, rotating troops through Estonia, Latvia, Lithuania, and Poland to deter possible future Russian aggression elsewhere in Europe, particularly in the Baltics. These battalions were joined by two U.S. Army tank brigades, deployed to Poland in September 2017 to further bolster the alliance's deterrence presence.

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Ukraine has been the target of a number of cyberattacks since the conflict started in 2014. In December 2015, more than 225,000 people lost power across Ukraine in an attack, and in December 2016 parts of Kiev experienced another power blackout following a similar attack targeting a Ukrainian utility company. In June 2017, government and business computer systems in Ukraine were hit by the NotPetya cyberattack; the crippling attack, attributed to Russia, spread to computer systems worldwide and caused billions of dollars in damages.

Concerns

The conflict in Ukraine risks further deterioration of U.S.-Russia relations and greater escalation if Russia expands its presence in Ukraine or into NATO countries. Russia's actions have raised wider concerns about its intentions elsewhere in Eastern Europe, and a Russian incursion into a NATO country would solicit a response from the United States as a NATO ally. The conflict has heightened tensions in Russia's relations with both the United States and Europe, complicating the prospects for cooperation elsewhere including on issues of terrorism, arms control, and a political solution in Syria.

Appendix B

Pythia: A Timed Influence Net Tool

Pythia provides an environment to build graph-based probabilistic cause-and-effect models and to perform several analyses on them. It was developed by the System Architectures Laboratory at George Mason University to aid decision making and Course of Action development and evaluation in complex situations.

The process embodied in *Pythia* consists of four steps and is described in Fig. A1. The first step is the determination of the desired effects: the effects that are of interest whether they are desirable outcomes to be achieved or undesirable outcomes to be avoided.

Figure 9.A1: Process for constructing an Influence Net.
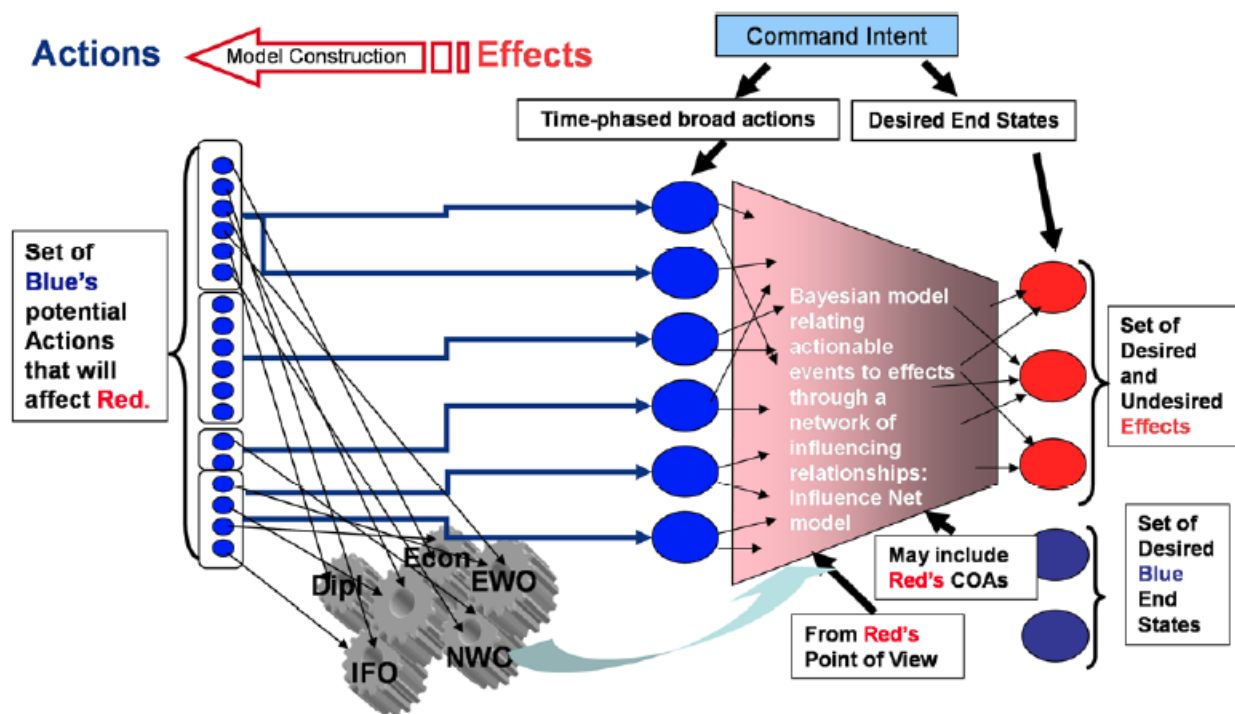
To determine how these effects can be accomplished and what could inhibit their accomplishment, an influence net model is constructed in which complex probabilistic influences between causes and effects and between effects and actions are indicated. The process for constructing the Influence Net starts with the effects on the right (see Fig. 9.A1) and works backwards toward the left. The typical question is: If Red is to make this decision, what factors will influence that decision? These become the input nodes to that effect and the links are assigned "influence strengths". The process continues until the nodes that would influence Red's decisions (or effects) are events that are controlled by Blue (high level Blue actions). This is shown as the large blue ovals in the middle of Fig. 9.A1. These large actions (which can be at the PMEESI level) can then be decomposed further to the left until they become specific tasks or, in the terminology of Influence Nets, actionable events.

If time is introduced, it is possible to indicate the time phasing of the actions and observe the probability of achieving the desired effects change over time. If time is introduced, then the Timed Influence Net features of *Pythia* are used.

It is interesting to note that non-kinetic events can have both a direct influence and an indirect one by acting as force multipliers to the kinetic actions with respect to influencing the achievement of the desired effects.

The influence net model is then used to carry out sensitivity analyses to determine which actionable events, alone and in combination, appear to produce the desired effects. It should be noted that influence nets are static probabilistic models; they do not take into account temporal aspects in relating causes and effects. However, they serve an effective role in relating actions to events and in winnowing out the large number of possible combinations. The result of this step is the determination of a number of actionable events that appear to produce the desired effects and an estimate of the extent to which the goal can be achieved. In addition to sensitivity analysis, *Pythia* includes an algorithm for determining the set of actionable events that can result in the probability of a selected effect to be above a specified threshold. The user selects an outcome/effect and then queries the Influence Net via the algorithm to determine which sets of actionable events (i.e., Courses of Action), if any exist, will produce the selected

The various influences (links) in the Influence Net have processing delays associated with them; an event can take place at time t but its influence may not be felt until t + δt. Also, the actionable events (the root nodes of the Influence Net) may not all take place at the same time, but at different times. *Pythia* provides for entering delays in the influence links and delays in the actionable events. This creates a Timed Influence Net that produces, when executed, not just the final probabilities but probability profiles over time. This enables the creation and evaluation of Courses of Action in which the various actions can be distributed on the timeline so that the best probability profiles can be achieved.

Graphical Interface Features

Pythia allows a user to draw and specify the structure and parameters of an Influence Net and its extension, Timed Influence Nets (TIN). The main graphical interface features are described below:

Actionable events (root nodes) are drawn as rectangles while non-actionable

events are drawn as rounded rectangles thus making them visually distinct. Different link styles are used in *Pythia* to distinguish between positive (blue with pointed

arrow head) and negative (red with round arrow head) influences. Figure 9.A2 shows a simple Influence Net. Node A is an actionable event, has Neutral initial probability, and has a positive influence on Node C (blue arrow). Node B is also an actionable event but has Significantly Less Likely (Dark Red) probability to occur and has a negative influence on Node D (red rounded arrowhead). Node C is a non-actionable event

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and is a final node, i.e., there are no outgoing influence arrows. The Blue color indicates that this is a Moderately More Likely event.

Figure 9.A2: Nodes, Links, and Color schemes.
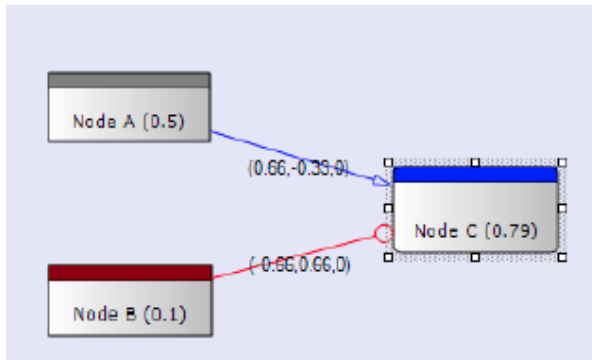
The underlying analytical framework for Influence Nets is Bayesian Nets. Consequently, Conditional Probability Tables (CPT) need to be constructed from the influence values. The CAST logic algorithm is used.The set of values for the influences is shown in Figure 9.A3.

Figure 9.A3: Link Properties Window.

A color-coding scheme for the nodes is used that assists a user in estimating the likelihood of occurrence of a particular event in an Influence Net. The coloring scheme for the nodes is:

- Significantly More Likely: Darker Blue ($p > 0.88$)
- More Likely: Dark Blue ($0.77 < p < 0.88$)
- Moderately More Likely: Blue ($0.66 < p < 0.77$)
- Slightly More Likely: Light Blue ($0.55 < p < 0.66$)
- Neutral or No Impact: Grey ($0.44 < p < 0.55$)
- Slightly Less Likely: Pink ($0.33 < p < 0.44$)
- Moderately Less Likely: Red ($0.22 < p < 0.33$)
- Less Likely: Dark Red ($0.11 < p < 0.22$)
- Significantly Less Likely: Darker Red. ($p < 0.11$)

Once an Influence Net is completely specified by a user, **Pythia** computes the marginal probabilities of all the events in the Influence Net. These probabilities show the likelihood of occurrence of corresponding events in a static (time-independent) situation.

A user can perform two types of sensitivity analyses in **Pythia**:
- The Sensitivity of Action analysis provides the sensitivity of an effect to actionable events.
- The Sensitivity of Influence analysis provides the sensitivity of an effect to the CAST logic parameters associated with links in an Influence Net.

Pythia allows a user to run the Sets of Actions Finder (SAF) algorithm. The algorithm provides sets of actions that cause the probability of a desired effect to be above a certain threshold. Essentially, it generates the set of COAs that satisfy a performance criterion. A brief description of the SAF algorithm is given in Appendix B.

Once a COA is specified, **Pythia** generates probability profiles of selected events. A profile shows the likelihood of occurrences of events over a period of time. The period of time is determined from the COA and temporal information available in the form of link and node delays.

Pythia allows a user to compare up to three courses of actions. The comparison is performed using the probability profile of a variable of interest (e.g., a non-root node) generated from the selected courses of actions.

Pythia allows a user to assign several likelihoods of occurrence of an actionable event at distinct discrete time instances. This feature attempts to capture the persistence of actionable events.

Chapter 10: Conclusion: Tool Kit for Planners and Operators in Gray Zone Crisis Environments

Allison Astorino-Courtois and Robert J. Elder

Over the last 15 years, the U.S. military has been called upon to face increasingly complex operational environments (OE) and a widening range of challengers. The current security environment includes more actors with the potential to threaten U.S. national interests, on multiple domains and using kinetic and non-kinetic means. Most importantly, U.S. interests can be threatened from physically distant adversaries. In the case of a cyber-attack, for example, minor powers and even non-state actors can project enough power to cause effects that until recently only major state powers could achieve.

The complexity of this environment makes it all the more critical that the U.S., host-nation and/or coalition partners' activities are based in a common, holistic understanding of the operating environment -including the relationships among the interests and capabilities of governments, population groups, security forces, and violent non-state actors.

The complexity of the current OE necessitates integration, coordination, and synchronization across multiple U.S. government elements and partners. A greater understanding of the relationships between deterrent measures and an actor's decision calculus can help strategists identify ways to shape the international environment in ways that reinforce security objectives of the U.S. and its partners. To accomplish this requires a common understanding of the environment.

This chapter outlines a Gray Zone (GZ) Tool Kit by way of a review of significant new insights for U.S. policy makers on data-informed and empirically tested tools and levers available for managing escalation and deterrence in competition short of armed conflict. During the course of this project, the research team met with members of both strategic-level (inter-agency) and operational-level (joint military) planning communities to discuss the research observations described in earlier chapters and look for ways to employ the ensuing insights to their work. Together with a new conceptual escalation management model developed in the course of this research, the GZ Tool Kit employs a modeling platform to aid strategists and planners to address the factors that drive complex conflict situations. It allows planners and strategists to explore the causal dynamics driving international competition or conflict that can manifest as unanticipated, and often counterintuitive, outcomes. While this capability has broad applicability, the focus is on confrontations short of armed conflict that are complicated by intertwining political, territorial, economic, ethnic, and/or religious tensions.

1. Overview of the Current U.S. Planning Tools

1.1 Operational Motivation

While a range of modeling and simulation tools exist within military commands, most are special-purpose, and extensive time and effort are often required to configure and use these tools. Existing tools are also heavily dependent on databases with no automated mechanism for keeping them current. A DARPA (2016) report noted that approximately six to ten staff-

weeks of expert effort are required to create a problem-specific, OE modeling capability, either by manually developing a custom system dynamics model directly from source data, or by configuring an existing modeling tool (e.g., the U.S. Army's Athena Stability Simulation). These tools are not generally suitable for use directly by operational planners as they require expert modelers to assemble, configure, run, and interpret the outputs.

The lack of time, resources, skilled personnel, and capabilities to conduct systematic analysis can lead to sub-optimal planning and negatively impact the effectiveness of operations. The inability of planners to rapidly and effectively achieve a shared understanding of a situation or problem, explore factors driving conflict, and objectively assess potential outcomes of a broad range of actions can severely hamper the potential impact of operations. U.S. planners and strategists need a planning framework that accommodates the range of interactions from cooperation through constructive and destructive competition to armed conflict. While there are multiple models, frameworks, tools, and even AI-enhanced systems applicable to scenarios involving armed conflict, a supplement appropriate to competition and gray zone activities has been lacking. Working with planners it was evident that with minor adaptations designed to win competitive contests rather than military battles, existing planning processes remain a sound basis for grey zone operational planning. The next section examines these processes.

1.2 Elements of Operational Design

The U.S. military already employs a methodology to ensure that planning is informed by multi-dimensional understanding of the environment. Referred to as "Operational Design" in joint doctrine, it comprises the interdependent tasks of 1) framing the operational environment, 2) framing the specific problem or threat, and 3) developing an operational approach to address it. Today, these tasks are largely manual, and labor- and time-intensive. Co-located teams equipped with whiteboards, Post-it™ Notes, and PowerPoint™ manually assemble knowledge about the operational environment, generate and subjectively evaluate hypotheses about the situation, and flesh out two to three options for a recommended operational approach. The selected operational approach supports the military commander's initial guidance to the planning team. This same approach can be easily adapted for competition short of armed conflict.

The following principles extracted from JP5-0, Joint Operation Planning, serve as the foundation for planning operations involving competition short of armed conflict.

- Termination: Criteria describing the standards that must be met before the conclusion of a joint operation.
- Military end state: Conditions representing a point in time and/or circumstances beyond which the President does not require the military instrument of national power as the primary means to achieve remaining national objectives.
- Objectives: Clearly defined, decisive, and attainable goals toward which every military operation should be directed.
- Effects: Physical and/or behavioral states of a system that result from an action, a set of actions, or another effect. A desired effect can also be thought of as a condition that can support achieving an associated objective, while an undesired effect is a condition that can inhibit progress toward an objective.

- Center of gravity (COG): A source of power that provides moral or physical strength, freedom of action, or will to act. Analysis of friendly and adversary COGs is a key step in operational design. Planners should analyze COGs within a framework of three critical factors—capabilities, requirements, and vulnerabilities—to aid in this understanding.
- Decisive points: A geographic place, specific key event, critical factor, or function that, when acted upon, allows a commander to gain a marked advantage over an adversary or contributes materially to achieving success (e.g., creating a desired effect, achieving an objective).
- Lines of operation (LOO): Connects actions on nodes and/or decisive points related in time and space to an objective(s).
- Lines of Effort (LOE): Link multiple tasks and missions using the logic of purpose—cause and effect—to focus efforts toward establishing operational and strategic conditions. Lines of effort are essential to operational design when positional references to an enemy or adversary have little relevance, such as in counterinsurgency or stability operations.[69]
- Direct and indirect approach: A direct approach attacks the enemy's COG or principal strength by applying power directly against it. An indirect approach attacks the enemy's COG by applying power against a series of decisive points that lead to the defeat of the COG while avoiding enemy strength.
- Anticipation: Remaining alert during execution for the unexpected and for opportunities to exploit a developing situation.
- Culmination: A point in time and/or space at which the operation can no longer maintain momentum.[70]

1.3 Current U.S. Military Approach to Planning for Complex Conflict Situations

The Joint Planning Process in use today (Joint Publication 5-0, 2020) is designed to provide an orderly, analytical process, which consists of a set of logical steps to examine a mission; develop, analyze, and compare alternative courses of action (COAs); select the best COA; and produce a plan or order to be executed. Once a mission requirement has been identified, the process consists of seven steps:

1. Planning Initiation: The commander issues the initial Commander's intent to launch the operational design process, which begins with a detailed mission analysis.
2. Mission Analysis: Study the assigned tasks and identify all other tasks necessary to accomplish the mission. The primary products of mission analysis are staff estimates, the mission statement, a refined operational approach, the commander's intent statement, updated planning guidance, and commander's critical information requirements (CCIRs).
3. Course of Action (COA) Development: A COA is a potential way (solution, method) to accomplish the assigned mission. The staff develops COAs to provide unique choices to the commander, all oriented on accomplishing the military end state. COAs generally focus on COGs and decisive points.

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[69] Combining LOOs and lines of effort allows commanders to include nonmilitary activities in their operational design.
[70] This may result from the erosion of national will, decline of popular support, questions concerning legitimacy or restraint, or lapses in protection leading to excessive casualties.

4. COA Analysis and Wargaming: The purpose of this step is to answer two primary questions: Is the COA feasible, and is it acceptable? Wargaming is used to visualize the flow of the operation, given joint force strengths and dispositions, adversary capabilities and possible COAs, the operational approach, and other aspects of the operational environment. Each critical event within a proposed COA should be gamed based upon time available using the action, reaction, and counteraction method of friendly and/or opposing force interaction.
5. COA Comparison: Evaluate all COAs against established evaluation criteria and selects the COA that best accomplishes the mission.
6. COA Approval: The end result of the COA comparison process.
7. Plan or Order Development: Expands the approved COA into a detailed joint contingency plan or Operations Order (OPORD) by first developing an executable concept of operations (CONOPS).

1.4 Limitations of Current Approach

At present, the foundation for U.S. military planning lies in the planner's experience with military operations to defeat a state or non-state adversary through attrition operations, or to disrupt its ability to achieve military objectives. Competition operations are generally designed to compel, control, influence, and support civilians for the purpose of achieving or maintaining advantage relative to a challenger, which requires very different approaches to the use of military force.

Specifically, operations to challenge and respond to competitor actions and behaviors to gain advantage relative to the U.S. and its partners require extensive knowledge of competitor and partner governments, opposition groups, population group factions, security forces, and violent non-state actors to determine the operational environment. Operational environment information may not be readily available, and cannot be quantified using military parameters typically employed in wargames.

Complex conflict models reflecting political, economic, social, cultural, informational, infrastructure, and legal, as well as military factors must be tailored for each situation. Experienced planners noted that competition models should also consider all key actor relationships to include both partners and competitors. Challenger COAs will not be limited to military capabilities, and are likely to focus on compelling, controlling, influencing, and supporting actions of civilian groups. Due to a lack of homogeneity in both partner and competitor populations, it is difficult to accurately forecast the reaction and counteraction methods of friendly and opposition forces. Furthermore, autocratic government control of information is generally much greater than the United States or its partners giving these U.S. competitors significant advantage in their ability to control the narratives not only within their population, but other relevant populations.

2. Potential Impact of a Successful Gray Zone Crisis Planning Toolkit

A GZ Toolkit must accomplish a number of things, including:

1. Guiding users to maintain the proper balance between activities required to deter conflict or use of coercive force on one hand, with activities to retain areas of cooperation or constructive competition on the other.

2. Addressing multiple _types_ of escalation thresholds. Expanding the concept of the operational environment within which the military must operate to one that includes reinforcing cooperation through competition and conflict increases the number, and more importantly the types of escalation thresholds that planners and strategists must accommodate.

3. Helping planners recognize an opponent's strategic intention in situations that lack the observable indications and warnings of aggressive intent prior to a kinetic confrontation, e.g., movement of forces, heightened alert status, etc.

3. Elements of Strategic Competition

While not all inclusive, the earlier chapters of this report suggest that strategic competition can occur on multiple dimensions, including trade, ideological conflict, socio-political differences, regional and international security leadership, and regional influence. These dimensions require different approaches to planning than what would be appropriate for combat operations. Discussions with inter-agency operations planners highlighted that this is not only a substantive issue, but a bureaucratic issue as well. Although the fundamental approach is similar, there are major differences in the processes DOD uses to plan solely military operations, and how other U.S. government departments in the interagency conduct planning. Even the terminology used to describe similar activities can differ significantly, so recognizing the potential for misunderstandings and miscommunication is crucial to the ability to plan and synchronize cross-agency actions.

Unlike planning kinetic military operations, planning activities for a competitive environment is not only about setting up for the next D-Day, and because it is so different, military PLANORD (planning order) and EXORD (executive order) processes do not always work. In competition planning, the U.S. wants its challengers to begin questioning their own plans. At the same time, it must recognize that competitors have their own interests and operational plans for achieving them that they will execute. This uncertainty becomes challenging for military planners, because there is no line of departure to be used when moving from planning to execution. It also places commanders and strategists who fail to differentiate between acceptable levels of competition and environments, in which U.S. interests are directly threatened by the actions of a challenger, atop a slippery slope toward believing that every challenge around the globe warrants a response.

In addition to guidance for careful discrimination of situations that demand a direct response, and determination of which type of response (escalatory, de-esclatory, or matching) is desired, a competition strategy should suggest three types of non-mutually exclusive operational objectives: (1) gain advantage, (2) defend against disadvantage, and (3) create dilemmas for the challenger.

Effective planning requires speed, agility, and transparency across U.S. and partner government agencies, which can only be achieved through initiative and a practiced, disciplined approach. With transparency comes exposure, which is often uncomfortable for actors involved in such planning. Speed is complicated by a tendency for the U.S. government to wait for, and react to, situations, but reactive strategies create their own dilemmas because excessive speed of reaction can inadvertently escalate a situation into a crisis. The unfortunate result is a tendency to view developing situations as a sunk cost, and

because it is too late to react effectively, the only remaining course of action is to cut U.S. losses.

Recent experiences illustrate that the most effective campaigns involve executing multiple lines of effort that create opportunities for the United States and its partners and conundrums for U.S. competitors. The research team learned that in recent years the U.S. government has begun to employ a disciplined approach for Whole of Government planning which enables agencies across the government to focus their efforts on common objectives and outcomes when conducting their individual agency planning which in turn provides Unity of effort across the whole of government. Although actual planning is conducted at a classified level, this chapter provides an outline of the approach that can be employed in unclassified settings for educational and other similar applications.

4. A Focused Objectives/Outcomes Approach to Whole of Government Planning

The purpose of the Focused Objectives Framework is to coordinate planning for the achievement of strategic outcomes with activities that are deconflicted but not necessarily synchronized. In military parlance, it is a strategic-level form of Mission Command. From an inter-agency perspective, this approach creates a "marketplace" where every agency can bring their unique activities that contribute synergistically to achieve shared objectives and outcomes. At its foundation this requires acceptance by senior military leaders, and trust on the part of the senior leaders involved in the U.S. interagency processes. The key principle that enables this acceptance and trust is that all involved parties must develop a clear understanding of the risks and a willingness to accept these risks where necessary. With no single person in charge, the approach often requires a senior-level champion who can encourage planners from across the departments to engage collectively, often in ways that can be outside their normal comfort zone. For this reason, implementing the Focused Objectives Framework takes time because relationship building is key to building senior leader trust in planners from agencies other than their own.

Strategic Empathy. A key element of this framework is that it is based on "strategic empathy" regarding U.S. competitors. This is not to be confused with sympathy or agreement with competitors, but an appreciation for their values interests. In particular, it requires that planners assess how competitors will perceive U.S. activities from the perspective of their interests, not those of the U.S. An agreed-upon interest map can help underpin this part of the planning process. It is also useful to have a capability to evaluate how adversary "red team" equivalents are assessing the actions of the U.S. government. This is not typically part of military or whole of government planning. As a result, U.S. government is weak in its ability to assess how competitors will perceive U.S. activities. As the agencies gained experience with the Focused Objectives/Outcomes methodology, they learned that it is important to conduct information probing activities to assess the environment, which includes maintaining an awareness of all U.S. activities, not just those activities that are being executed in support of a deliberate planning process. This is critically important because another U.S. organization's activities could undermine the desired effects of the activities being planned.

Governing Documents. The Focused Objectives Framework requires governing documents that do not prescribe activities but instead describe end-states leading to desired outcomes. Inter-agency members acknowledge the need for planning but often find it difficult to fit their department's activity planning into a "box" that has been designed for military planning. This

requires planners, particularly those from the military, to shift their thinking from achieving a victorious end-state to one that focuses for long periods of time on gaining advantage for the U.S. and its partners, or on creating a relative disadvantage for a competitor.

Strategic Mission Command. This new approach strives to create conditions for a coalition of the willing from across the U.S. government to play to their strengths. The concept it employs is similar to operational mission command, but performed at the strategic level with whole of government involvement. Standing orders and terms of reference provide agencies the authorities they need to take risk and enable self-organization, and serve as "anchor points" to guide alignment of their Operations, Activities, and Investments (OAIs) across the whole of government. Other key elements of this approach include Direct Liaison Authorized (DIRLAUTH) arrangements, published governing documents, and, as mentioned earlier, a clearly recognized senior champion. Also necessary are means to deconflict and synchronize agency activities in ways that can leverage each other's authorities and strengths.

Employing an outcome-based, synchronized approach provides a means to drive perceptions and increase U.S. influence against competitors and adversaries to achieve national security objectives. The outcomes of these efforts are focused campaigns that deceive to compete, reveal to deter, and conceal to win. Figure 10.1 depicts the multi-agency planning and coordination process described in the following paragraphs.

Figure 10.1. Focused Objectives/Outcomes Approach
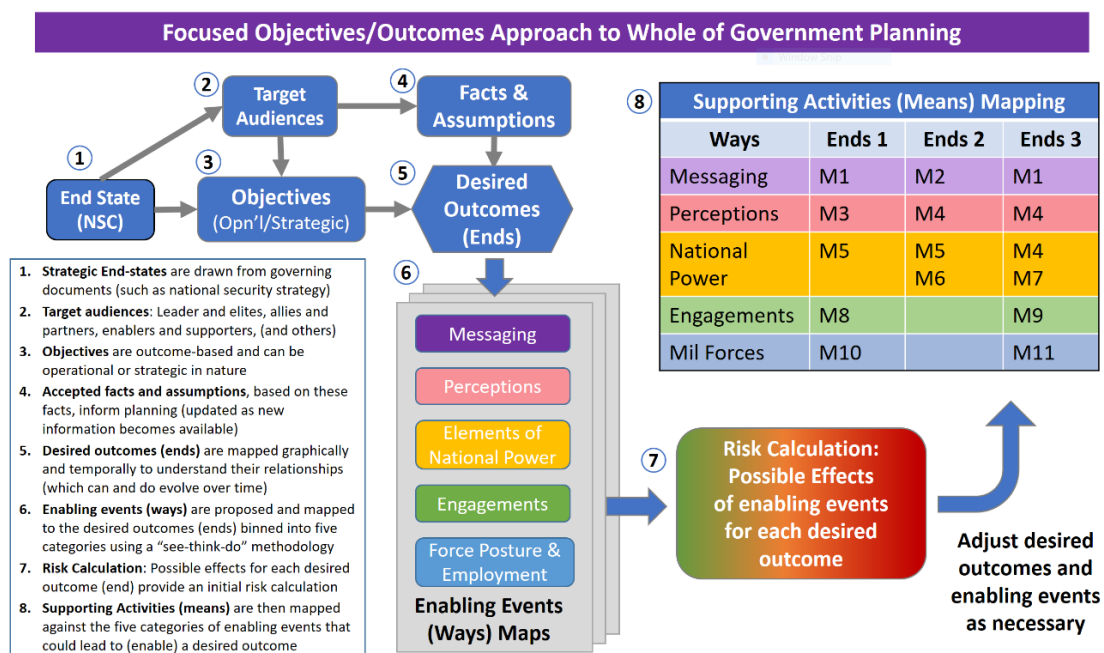
Strategic End-states. Proactive Strategies begin with strategic end-states drawn from governing documents, such as the U.S. National Security Strategy. For each strategic end-state, target audiences are identified: leader and elites, allies and partners, enablers and supporters, and others whose views ultimately contribute to the perspectives of the leaders and elites. This step of the process is akin to target audience segmentation used in marketing and advertising.

Objectives. In parallel, planners from across the whole of government identify objectives that will contribute to achieving the strategic end-state. These objectives can be operational or strategic in nature and are outcome-based, reflecting actions against the identified target audiences, and provide the framework that enables traceability from tactical-level actions to strategic objectives for planners from across the U.S. government.

Facts and Assumptions. Planners then assemble a list of accepted facts, and based on these facts, devise assumptions to inform planning. Documenting and agreeing to these distilled facts and assumptions is foundational to the entire approach. The validity of assumptions is constantly challenged, where possible through OAIs specifically designed to test each assumption regularly until proven valid. This step is heavily dependent on Intelligence Community (IC) assessments, which can pose a challenge since these assessments require that the IC increase its prioritization of competition planning at the expense of traditional resource planning and OPLAN development intelligence efforts.

Desired Outcomes over Time. With agreed upon facts and assumptions documented on the placemat, the Whole of Government planners map desired outcomes (ends) graphically and temporally to understand how these outcomes relate to one another, and how their relationships evolve over time. It is important to depict this graphically in a manner similar to the way complex program plans are laid out over time since the sequence of OAIs can dramatically affect their effectiveness.

See-Think-Do. The next step is where the planning transparency pays off. The proposed enabling events (ways) are then mapped to the desired outcomes (ends) using a "see-think-do" methodology. The "see" element involves delineating specific target audiences (for example, leaders, elites, and partners) the U.S. would like to influence. The "think" element ascertains the intent of the target audience and identifies key elements that members of this audience value. The "do" element proposes enabling events (ways) that could affect the target audience's intent or appeal to their value propositions. These ways are binned into five categories: Messaging, Perceptions, Economic, Engagements, and Force Posture/Employment.

Enabling Event Categories. Messaging enabling events consider the different ways the United States can reach a target audience, directly or indirectly, to challenge their preconceptions of the United States, challenge their own beliefs about themselves, and perhaps most importantly, lead them to question their own plans to compete with the U.S. The Perceptions bin considers what the adversary is likely to observe and then determines what different target audiences might think as a result. The Economic bin considers all available non-military instruments of power, and serves as the basis for the senior champion to reach out to departments and agencies across the USG. Engagements are designed to harmonize efforts, from the most overt to those that are more sensitive, in order to amplify the desired effect and shape adversary perceptions. Finally, while Military force posture and employment OAIs are often the primary observable levers of influence due to the globally present nature of the joint force, it is important for the inter-agency community to understand how military OAIs can be much more effective when combined and synchronized with other elements of power that only they can provide.

Initial Risk Calculation. The inter-agency planning team assesses and lists the possible effects with respect to all possibly affected actors for each desired outcome (end). Graphically depicting these effects using visual coding on a placemat offers an initial risk

calculation if the proposed ways achieve the desired outcomes. In practice, an effect is color-coded green if it benefits the U.S. and allies, red if it benefits an adversary, and yellow if the effect is assessed to be neutral. This visual depiction of the risk calculus for planned and unintended effects of the enabling events supports an initial assessment of each desired outcome. If the risk calculus elements for a desired outcome are predominantly red, the U.S. might not pursue that outcome, or it might modify the desired outcome or ways employed to mitigate the elements of risk. Alternatively, the U.S. might elect to still pursue the outcome, but with great caution.

Supporting Activities. Supporting activities (means), consisting of operations, activities, and investments (OAIs) are then mapped against the five categories of enabling events that could lead to (enable) a desired outcome. A single activity can support multiple enabling events across multiple categories of enabling events (Messaging, Perceptions, Economic, Engagements, and Force Posture/Employment). Although an activity in each bin is not required for every outcome, depicting this mapping of activities against enabling events on the placemat produces a visual grid map which highlights where gaps might exist. In turn, the senior champion can highlight these gaps as opportunities to contribute to the campaign, and encourage all departments and agencies to offer OAIs that leverage their capabilities.

In practice, the U.S. has seen the importance of authorities to accept and manage Whole of Government risk, synchronize and de-conflict activities across agencies (DIRLAUTH), and enable self-organization. This form of Strategic Mission command is based on the use of "anchor points" such as Terms of Reference and Inter-agency Standing Operating Rules. But these documents by themselves are not enough. Effective implementation requires the development of trust and shared expectations among the Whole of Government planning participants.

The inter-agency organizations continue to emphasize the development of improved means to measure effectiveness of outcomes versus individual activities. Another benefit of the Focused Objectives Framework is that it offers a means to measure the effectiveness of Whole of Government collective actions. This effectiveness feedback is necessary to promote growth across the U.S. government as a learning organization. The military will particularly benefit from this feedback because the Focused Outcomes Framework is consistent with the way most government agencies operate, but this approach is foreign to traditional military planners. For example, military planners do not understand the language common to other interagency members. On the other hand, most government agencies do not understand military parlance. Learning and growing together as a cohesive inter-agency team skilled at conducting effective whole of government operations must constantly work to address these language barriers. Focusing on outcomes enables all members of the inter-agency to adopt proactive approaches that play to their unique strengths and also reduce risk typically associated with traditional approaches to collective action. The focused outcomes framework enables agencies across the Whole of Government to synchronize and deconflict activities to drive perceptions and increase U.S. influence on the actions and behaviors of our competitors and adversaries. The use of Focused Objectives Framework has proven effective in increasing the success of U.S. government campaigns to protect its national interests.

## 5. Escalation Management and Control

The figure below shows a basic escalation management model that planners and strategists might use to gauge where their planning problem fits into a larger deterrence and escalation management context. When response to a competitive challenge is required, the planner can use the Challenger-Defender Response Impact Table (10.1) to help identify classes of activities that would be escalatory given a challenger's action, match that action in intensity and threat, or generally be less provocative than the initial challenge. The challenger's tools are listed in the rows, defender response tools are in columns. The color of the cells indicates the impact (escalation, matching action, or de-escalation) of the defender's response given the challenger's initial action. The table has been developed based on the quantitative effort of this project (reported in Chapters 4-6) and the survey effort (reported in Chapter 7).

Table 10.1. Challenger-Defender Response Impact.

Legend — Defender Action →
- Context Dependent (yellow)
- Escalatory (red)
- Matching (blue)
- Deescalatory (green)

Challenger Action ↓

Defender Action columns:
1. Negotiations
2. Diplomatic cooperation
3. Economic cooperation
4. Military de-escalation
5. Reach agreement
6. Diplomatic condemnation, call for action
7. Withdrawal from, non-cooperation with negotiation
8. Downgrade diplomatic relations
9. Withdrawal from/ violate agreement
10. Trade restrictions
11. Economic sanctions
12. Sever diplomatic relations
13. Border closure
14. Destruction of assets with no loss of lives
15. Support of internal/ sleeper proxies
16. Ultimatum/ threat of military action
17. Covert non-violent act
18. Coup/regime change
19. Act by proxy
20. Show of force
21. Troop mobilization
22. Covert violence
23. Strategic deployment of assets toward adversary
24. Violent action against adversary's proxy
25. Violent action against state adversary
26. Violent action on other than state or proxy

Challenger Action rows:
1. Negotiations/talks
2. Diplomatic cooperation
3. Economic cooperation
4. Military de-escalation
5. Reach agreement
6. Diplomatic condemnation, call for action
7. Withdrawal from, non-cooperation with negotiation
8. Downgrade diplomatic relations
9. Withdrawal from/violation of agreement
10. Trade restrictions
11. Economic sanctions
12. Sever diplomatic relations
13. Border closure
14. Destruction of assets with no loss of lives
15. Support of internal/ sleeper proxies
16. Ultimatum/threat of military action
17. Covert non-violent act
18. Coup/regime change
19. Act by proxy
20. Show of force
21. Troop mobilization
22. Covert violence
23. Strategic deployment of assets toward adversary
24. Violent action against adversary's proxy
25. Violent action against state adversary
26. Violent action against other than state adversary or proxy

A critical step in doing this is to gain an understanding about why the competitor took the challenging action. In other words, what was the competitor's objective relative to the challenging behavior. Figure 10.2 examines the challenger and defender's responses in more detail.

Figure 10.2. Challenger-Defender Escalation Model.
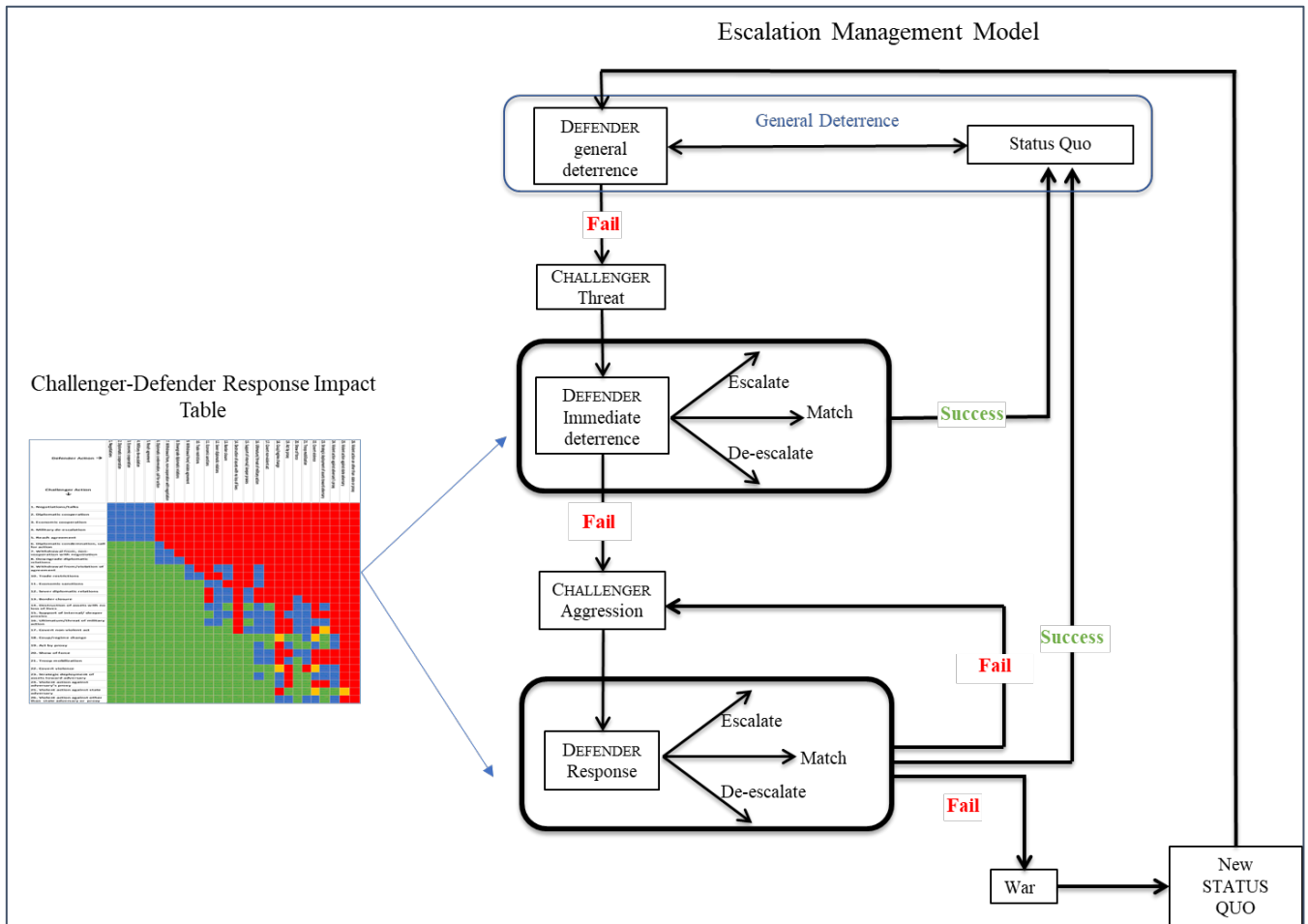
There are a number of complications that U.S. strategists and planners must keep in mind. First, competitors will be doing the same kind of analyses of the U.S., and attributing motivations for expected actions to the U.S. A related complicating factor is that a competitor's perception of the operational environment, and even the nature of the challenge or competition, can be different from the reality that USG and partner planners intend or assume. Planners must take care to assess competitor interests, and objectives for various actions carefully and *from the perspective of the competitor* rather than what they assume or may know to be true. Identifying the discrepancies between the competitor's perceptions and facts provide a useful foundation for designing a plan to favorably influence the competitor's decision calculus.

6. Gray Zone Crisis Toolkit Conclusion

Even in the context of the significant implications listed here, by far the greatest conundrum for U.S. policy makers and strategists will be balance. Ultimately, plans for deterring conflict must be balanced with concepts and strategies for competing below the level of armed conflict and against multiple opponents well aware that their best play is to avoid direct military conflict with the U.S. This was not the case during the Cold War when arguably there was a single objective: degrade the Soviet capacity to challenge U.S. interests.

Deterrence and escalation management can work together or be at odds. Actions taken in order to deter an adversary can contribute to escalation management, or may work against escalation management. If an adversary is deliberately escalating, then one can potentially deter further escalation by influencing the adversary's perceived cost/benefit judgement. However, if an adversary is escalating inadvertently, then taking actions to deter the adversary through threatened punishment may increase perceived threats to their security and thus prompt the spiral of tension - furthering escalation.

Deterrence Strategies should (1) deter potential adversaries by encouraging restraint, denying benefits, and threatening to impose unacceptable cost, (2) maintain capabilities to initiate response with minimum adverse consequences consistent with strategic objectives; and (3) assure friends and allies. In addition to deterring the use of existing capabilities, it is also useful to dissuade or prevent adversaries from developing capabilities considered unacceptable to the U.S. and its allies. Ultimately, this requires a level of mutual understanding—each actor must understand that their specific behaviors (under specific conditions) are unacceptable to the deterring party.

U.S. strategic competition success requires the ability to deny competitor benefit from the behavior and/or the ability to impose cost in response to an unacceptable behavior. It is also useful to promote the competitor's perception of benefit from not conducting unacceptable behaviors (exercise restraint); and act to minimize the competitor's perception of the cost of restraint. Escalation management is enhanced by possessing a range of options to counter a competitor's unacceptable behaviors or their apparent posturing to conduct unacceptable behaviors. This includes being prepared to counter adversary threats to respond disproportionally to measured U.S. actions.

There are other steps that can improve the effectiveness of U.S. strategic competition. Minimizing U.S. vulnerabilities and/or increasing resiliency reduces an adversary's confidence in the effectiveness of their actions to achieve their desired effect. The United States and its partners should also be unpredictable about their likely responses so that the aggressor is not emboldened by a favorable assessment of the expected U.S. response. It is also important for planners to enable off-ramps that provide opportunities for an aggressor to choose restraint over further escalation.

This chapter provides U.S. policy makers and planners data-informed and empirically tested tools and levers available for managing escalation and deterrence in modern conflict, with particular emphasis on tools and levers applicable to gray zone conflict. It offers a new integrated conceptual framework that can be employed as a means to effectively manage low-level multi-party protracted confrontations in a way that maintain or improve U.S. strategic advantage relative to its competitors. These tools and processes can also be employed in

educational and professional development settings to develop insights and experiential learning about grey zone competition and escalation management during crises that can be applied during real-world planning and strategy development.

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