GRAND STRATEGY IN THE INFORMATION AGE:
AN EXAMINATION OF GLOBAL CYBER TECHNOLOGY AND THE RISE OF PUBLIC CAPACITY

by

JOSHUA N. K. MASSEY

(Under the Direction of LOCH K. JOHNSON)

ABSTRACT

The Global Information Age has precipitated a dilemma for grand strategy scholars and policymakers. The dilemma concerns whether or not a single grand strategy can address the growing volume and variety of threats to national security in the twenty-first century. One contributing factor to this problem is the rapid spread of cyber technology and the resulting diffusion of power away from governments to citizens. This global phenomenon has altered the power dynamic between publics and their respective governments, as well as inter-state relationships. In short, the information age has transformed the nature of international politics. To address this systemic change, I present a contemporary model of international politics that depicts foreign publics and governments as discrete actors. The model demonstrates that grand strategy in the information age is best conceived as a three-level game that accounts not only for the interests of domestic groups and foreign governments, but also the increasingly independent will and opinion of foreign publics. I theorize that public capacity—the extent citizens are able to access, produce, store, and exchange information, build awareness of political events, and collaborate and coordinate action, locally and globally—has important strategic implications.
Namely, public capacity diminishes the *information gap* between governments and publics, permits *alternative framing* of government actions and policies, intensifies the *reverberation* of political messages and events, and subsequently, shapes *global public opinion*. To test this theory, the study employs models previously used to analyze global public opinion on American foreign policy developed from existing theories of security interests (interest model), socialized perceptions (socialization model), and foreign pressure (influence model). This research broadens the aperture of the grand strategy debate by outlining the logic for a more *population-centric* approach to grand strategy. The study accomplishes this by drawing attention to the central role of *public capacity* in shaping global public opinion, bringing into focus the discrete and expanding role that *foreign publics* play in international affairs, and identifying *public diplomacy* as an increasingly indispensable instrument of power.

**INDEX WORDS:** foreign policy, foreign publics, global public opinion, grand strategy, public capacity, public diplomacy
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BS, AUBURN UNIVERSITY, 1996

A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements for the Degree

DOCTOR OF PHILOSOPHY

ATHENS, GEORGIA

2017
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DEDICATION

This project is dedicated to my wife, Molly, for her encouragement, thoughts, endurance and most of all her friendship. And to our sons, Joshua Cooper and Cody Nathaniel Massey, may you be inspired by the spirit of inquiry and the responsibility to better your communities and the nation.
ACKNOWLEDGEMENTS

No one completes a project of this magnitude on their own; a dissertation is a compilation of influences, experiences, and ultimately much assistance. I take this opportunity to thank those who have influenced and assisted me: my parents, Keith and Sandy Massey, who encouraged their sons to dream and tirelessly facilitated their success in all endeavors; my brothers, Kyle and Taylor Massey, who inspire and encourage me to challenge myself physically and intellectually; my grandparents, Shelby and Rosemary Massey and Otis and Nell Greene, whose lives exemplified the dignity of hard work and value of family; my uncle, Lieutenant Colonel Darrel Massey, whose life of service and travel sparked my curiosity in international affairs at a young age; my aunt, Cynthia Buchanan, who dedicated a summer to teach me to read and routinely gave me the gift of books; and Mr. Tracey Brown, a life-long friend and fellow philosopher.

I owe a debt to many fellow Marines, especially those who served with me as members of the Economic and Political Intelligence Cell, II Marine Expeditionary Force, Helmand Province, Afghanistan 2009-2010: Gunnery Sergeant Cesar Huezo, Staff Sergeant Francesco Tessitore, and Sergeant Jacob Hsieh, and also Captain Joshua Hildebrand and Doug Gardner. Our mobilization, deployment, and unending conversations were the seeds of this project.

I would like to express my appreciation to an exceptional group of friends in the Athens community that helped Molly and I maintain balance throughout this project: Andrew Pierson and Anna Donderos, Jason Westrich and Lisa Donderos, Josh and Noel Miller, Joe and Vanessa Lawrence, and Randy Ramsey and Julie Darnell.
Finally, I would like to thank the members of my committee: Dr. Loch Johnson, an exceptional mentor, for agreeing to serve as the chair of my committee; Dr. Brock Tessman for honoring his commitment to serve despite the distance between us; Dr. K. Chad Clay and Dr. Daniel Hill for always being responsive to my requests and exceptionally generous with their time. Additionally, I would like to thank the staff at the University of Georgia, School of Public and International Affairs—particularly, Mrs. Emily Smith, Mr. Bill Zachmann, Mrs. Brenda Smith, Mrs. Beverly Rylee, Mrs. Pam Smith, and Ms. Wendi Finch—for their cheerful support and friendship. I would be remiss not to mention three members of the University of Washington for their early assistance in supporting my academic interests: Dr. Jack Turner III, Dr. Jonathan Mercer, and Dr. Michael Strausz. Finally, much gratitude goes to Julie Minchew, who graciously edited an early draft of my prospectus.
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CHAPTER ONE

A NEW STRATEGIC LENS

The beginning of the twenty-first century has been a turbulent and uneasy period in American foreign policy. At the opening of the new millennium the United States enjoyed an unprecedented position of authority. For ten years (1991-2001), the United States stood unchallenged as the world’s lone superpower. To many observers, it seemed the United States was proceeding along a clear path to fulfilling its manifest destiny by spreading liberal values around the world. A sense of security, if not invincibility, pervaded much of American society. Most long-term forecasts predicted a continuation of peace and prosperity at home. This rosy outlook changed abruptly on the morning of September 11, 2001. Since that day, America’s international stature has steadily eroded and uncertainty has clouded the nation’s sense of security and path forward.

In many ways the United States spent the decade prior to September 11 in a strategic stupor, basking in its Cold War victory, contemplating the “End of History” and the triumph of Western liberalism as the world’s preeminent form of political organization.¹ The U.S. Intelligence Community warned of threats looming on the horizon, but in many respects, these seemed relatively minor compared to the two World Wars and the Cold War of the past century.²

The country was caught in a strategic rut, lulled into complacency by the current state of affairs, and unable to imagine how a small band of extremists could challenge a superpower or how technological innovation could upend the international power structure.

Surrounded by this strategic fog, the United States responded to the September 11 attacks by initiating a global war on terror and embarking on two wars, one in Afghanistan (2001) and one in Iraq (2003). These wars were aimed at routing the international terrorist networks responsible for attacking the U.S. homeland and unearthing and defeating other violent extremists with similar intentions. The war on terror resulted in a multitude of tactical successes. Most notably Osama Bin Laden, the architect of the September 11 attacks, and Saddam Hussein, Iraq’s former despotic leader, were removed from power. The war’s strategic outcomes, however, were less remarkable. The United States’ international reputation and credibility suffered significantly, the Middle East remains embroiled in conflict and chaos, and there are a growing number of ever-more violent and ever-more extreme terrorist organizations.

More troubling is the fact that in many ways the war on terror further stunted the nation’s strategic outlook. Just as the nation’s attention was consumed by the threat of terrorism, a less dramatic, though perhaps more profound, phenomenon began transforming the international system in ways that were not immediately evident. Advancements in information and communication technology began slowly democratizing information around the world and permitting unprecedented coordination and political action among public actors. This phenomenon was not limited to Western democracies but was occurring across democratic and authoritarian regimes alike. This new era, characterized by technologically empowered citizens, is commonly referred to as the computer age, the digital age, or more formally, the Global Information Age.
The implications of the Global Information Age are vast. From a strategic perspective, the global spread of cyber technology, not an uptick in terrorism, is the most relevant event of the new century. Cyber technology is redefining power and reshaping politics in the twenty-first century. Consequently, a host of novel strategic opportunities and vulnerabilities abound. Understanding these new political forces is an essential component to effectively exercising power and shaping the international system in the twenty-first century. To fully appreciate this new environment, however, requires viewing the world through a new strategic lens—a lens capable of detecting more than the threat du jour. First, however, it is helpful to retrace how the United States lost its balance and stumbled into its current strategic predicament.

**Grand Strategy in the Post-Cold War Era**

Broadly defined, grand strategy is the logic, the “intellectual architecture,” which guides a nation’s foreign policy decisions. During the Cold War (1947-1991), America’s grand strategy of “containment” informed the nation’s approach to foreign affairs. For almost half a century, containment policy shaped the exercise of American power abroad. In contrast, during the quarter century following the Cold War, the United States has struggled to articulate and achieve a consensus around its foreign policy decisions.

The American Cold War experience is perhaps the foremost obstacle to making a paradigm shift in U.S. grand strategy. For over two generations (1947 – 1991), the Soviet Union and the United States contended as the world’s only superpowers. During this time, the Soviet

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Union served as the center of gravity for U.S. grand strategy. In the bipolar setting of the Cold War, the Soviet threat transcended all other foreign policy concerns. Despite their differences, U.S. policymakers and citizens alike overwhelmingly agreed that America’s security priorities were first and foremost related to deterring and ultimately defeating the Soviet threat. The success of America’s containment policy seemed to validate the virtues of a threat-centric grand strategy.

The sudden demise of the Soviet Union ostensibly ushered in a new era of peace and security. Then President George H. W. Bush declared a “New World Order,” a time of global peace that would replace the strife that darkened the era of the Cold War.\(^4\) The perception of America presiding over a new peaceful world order was boosted by America’s swift victory in Operation Desert Storm (1990-91), the first Persian Gulf War. Although Desert Storm accomplished little in terms of resolving the underlying political tensions in the region, in the minds of many, it was proof that a technologically superior American military was sufficient for preserving international peace and security.\(^5\) What many failed to envision, however, was that this new era was accompanied by great uncertainty in the form of an expanded range of unconventional threats and emerging technologies destined to become more capable of eluding America’s military superiority.

Each administration since the fall of the Soviet Union has struggled to comprehend and articulate a coherent approach to the challenges of this new world order. As a consequence, the United States has implemented an assortment of uncoordinated policies, often in reaction to

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\(^5\) Andrew Bacevich makes a similar remark regarding the adverse effect of Desert Storm during an interview with Bill Moyers, see *Bill Moyers Journal*, “Warning in America,” (15 Aug 2008), http://www.pbs.org/moyers/journal/08152008/profile.html.
world events. President Bill Clinton seized the rare opportunity to renovate U.S. grand strategy by attempting to replace the Cold War “containment” strategy with the doctrine of “democratic enlargement.” Clinton’s democratic enlargement doctrine was a bold shift from a threat-centric strategy to an economic-centric one that favored those countries deemed capable of developing a prosperous middle class.

Underdeveloped nations were considered peripheral concerns—a strategic miscalculation in the emerging information age. Clinton’s foreign policy of democratic enlargement was frequently overshadowed by a host of humanitarian crises in developing countries that received widespread media attention that was magnified by the advent of cable news. As a result, these humanitarian crises placed unexpected demands on the administration’s time and the nation’s material resources. These crises included Somalia (1992-1995), Bosnia (1992-2004), and Kosovo (1998-1999). Most notably, the Clinton Administration’s inaction on the genocide in Rwanda (1994) fueled a perception of U.S. apathy toward developing nations, damaged U.S. credibility abroad, and further underscored the strategic deficiencies of an economic based grand strategy.

As President Clinton’s successor, President George W. Bush, took the oath of office in January of 2001, the window of opportunity to reorient and establish a more cogent twenty-first century grand strategy was rapidly closing. After only a few months in office, President Bush was forced to respond to the largest attack on U.S. soil since the Japanese attack on Pearl Harbor in 1941. The spectacle of the September 11, 2001 attack pushed terrorism to the forefront of U.S. foreign policy concerns and dominated all efforts to reformulate U.S. grand strategy. The

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7 Ibid, p. 118-119.
Bush administration responded by emphasizing and expanding a policy of “preemptive attack.” President Bush declared that “even if uncertainty remains as to the time and the place of the enemy’s attack” the United States would “act preemptively” to prevent further hostile acts.\(^8\)

Bush’s preemptive attack policy signaled a shift in the focus of U.S. grand strategy from the international economy to a renewed focus on international threats. Whereas President Clinton was concerned with developing trading partners, President Bush’s strategic priorities were dominated by defeating terrorist. Correspondingly, President Bush turned to the U.S. military and initiated two major wars, one in Afghanistan (2001) and another in Iraq (2003). These wars achieved limited tactical objectives, but strategically left much to be desired. The wars in Afghanistan and Iraq—America’s longest wars—expended not only much blood and treasure, but also exacerbated the national debt, bitterly divided U.S. society, and strained the relations of the United States with its allies. From a strategic perspective, President Bush’s return to a threat-centric grand strategy, marked by an excessive demand and over-reliance on the American military, did not appear to be the path to the new world order that his father had envisioned.

President Barack Obama came to office in 2009 on the promise of ending the wars in Afghanistan and Iraq and re-building U.S. relations abroad. Arguably, President Obama’s ability to craft a unique and visionary grand strategy was largely constrained by the circumstances he inherited. His first years in office were consumed by efforts to fulfill his campaign promise to withdraw combat troops from Afghanistan and Iraq. Nonetheless, President Obama’s early visit to Egypt, pivot to Asia, participation in nuclear negotiations with Iran, and willingness to

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reestablish relations with Cuba all represent important shifts in U.S. foreign policy to better balance America’s military and diplomatic instruments of power.

Despite each administration’s hard work and noble intentions, the United States remains without a grand strategy to unify the nation’s efforts and to guide future foreign policy decisions. Russia’s annexation of portions of eastern Ukraine (2014), as well as the rise and spread of the Islamic State in Syria (2014), are direct challenges to America’s unsure footing. These are just two of many current events that highlight the slow contraction of U.S. power abroad and the reality that in the absence of a grand strategy capable of anticipating and shaping world events, the United States remains susceptible to the whims of other great powers and non-state actors alike.

A Strategic Dilemma

Not all policymakers and scholars agree that a cogent grand strategy is the answer to America’s woes. The failure of U.S. policymakers to formulate an enduring grand strategy throughout the post-Cold War period (1991-2017) has ignited a deep debate among politicians and scholars alike. Some prominent scholars argue that the United States does not require a grand strategy or that it is impossible to even construct a grand strategy in the twenty-first century owing to the growing complexity of the international system.\(^9\) Others caution that grand strategies...

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\(^9\) President Bill Clinton remarked that, “…Roosevelt and Truman had gotten along fine without grand strategies. They’d just made it up as they went along, and he didn’t see why he couldn’t do the same.” [John Lewis Gaddis, “What is Grand Strategy,” Karl Von Der Heyden Distinguished Lecture, Duke University, 2009, p. 2.]. For the most prominent example of the argument that the complexity of the international system precludes the development of grand strategy in the twenty-first century, see, Stephen D. Krasner, “An Orienting Principle for Foreign Policy: The Deficiencies of ‘Grand Strategy,’” Policy Review, No. 163 (October 2010), p. 3-12. Also, Amy B. Zegart, “Grand Illusions,” Hoover Digest: Research and Opinion on Public Policy, No. 3 (Summer 2014), p. 35-39, echoes Krasner’s concerns. Dr. Zegart first states these
strategy is an indispensable tool for navigating the international system, and that despite the complexities of the new century the search for a strategic vision to unify the nation’s efforts must continue in earnest; yet they offer little practical advice on how to move forward. Should the United States strive to devise a single concept that expresses the nation’s purpose in world affairs? Or is the notion of grand strategy a relic of more simple times? This dilemma, whether or not the complexity of the contemporary security environment invalidates grand strategy, and if not how to move forward, underlies the foundation of American foreign policy. How the United States responds to this dilemma will determine the efficacy of American power in the twenty-first century.

The central claim of this study is that the development of an enduring grand strategy is inextricably linked to a perceptive analysis of the international system—not confined to a threat assessment. Over the past twenty-five years, the international system has undergone a subtle, yet profound transformation and complicated this process. The development and spread of cyber technology—personal computers, mobile cell phones, wireless Internet, and social media programs and applications—has resulted in a diffusion of information across the globe and slowly, yet substantially, altered the nature and conduct of international politics. In many important ways, this transformation has rendered traditional models of the international system inadequate.

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Most notably, the widespread increase in access to information has enabled a diffusion of power away from government officials to ordinary citizens.\textsuperscript{11} Today’s technologically enabled citizens have exponentially greater access to local and international news and are more capable of coordinating and resolving collective action problems. Access to cyber technology and the technical expertise to use that technology equate to political power.\textsuperscript{12} Furthermore, this phenomenon is not limited to wealthy, liberal, Western societies, but is occurring around the world and across all regime types. Thus, the first step to devising an effective grand strategy is to develop a new lens, or theory, capable of bringing into focus the discrete and expanding role that foreign publics, and subsequently, global public opinion increasingly play in international affairs.

The Global Information Age demands that scholars consider how cyber technology is empowering the public, upending traditional power dynamics, and skewing existing strategic calculations. In this new era, understanding public capacity—the ability of citizens to convert information into political power—is as important as understanding a state’s capacity to mobilize resources. Scholars must consider not only the preferences and power wielded by governments, but also account for how the independent will of foreign publics and global public opinion influence domestic and international outcomes. Traditional concepts such as polarity, state capacity, and power transition must share the theoretical stage with new concepts such as public capacity and power diffusion. Here is the yawning gap in the literature in international affairs and U.S. foreign policy that this dissertation seeks to fill.


To address this gap, this study makes three scholarly contributions. First, the study makes a theoretical contribution. I present a theory, the three-level game, which broadens our strategic lens from a singular focus on defeating threats to the subtle, more profound, effect cyber technology has had across the international system. Second the study makes a conceptual contribution. I introduce the key concept, public capacity. I define public capacity as the extent citizens are able to access, produce, store, and exchange information, build awareness of political events, and collaborate and coordinate action, locally and globally. The first two contributions (the three-level game theory and the concept of public capacity) motivate the research question: what factors shape global public opinion and how does an increase in public capacity affect global public opinion? The third and final contribution of this study is a statistical analysis of these two questions. To examine them I modify a model of global public opinion, derive a measure of public capacity, and build a data set that comprises sixty-one countries and spans a fourteen-year time-period. These three contributions— theoretical, conceptual, and statistical analysis—expand the range of the current grand strategy debate and provide important clues for how best to advance American interest in the twenty-first century.

Structure of the Dissertation

This study proceeds as follows. The second chapter is a literature review that lays the groundwork for crafting a model of the international system in which foreign publics are depicted as discrete actors. The review ranges from a discussion of concepts linking grand strategy and the international system to the role of global public opinion in foreign policy. Next,

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the third chapter applies this foundation of knowledge to develop a model of the international system, the three-level game, which recognizes governments and publics as discrete actors. This alternative model of the international system emphasizes the transformation spurred by the recent spread of cyber technology. The model invokes Robert Putnam’s “two-level game” to highlight the public’s growing capacity to shape policy and international outcomes. I separate the distinct roles played by foreign governments and foreign publics to show that international politics in the twenty-first century is best conceived of as a “three-level game” in which global public opinion is the center of gravity.

The fourth and fifth chapters move from theory to quantitative analysis. The fourth chapter outlines the evolution of public diplomacy as an instrument of power aimed at influencing foreign opinion before tackling the research question, *what factors shape global public opinion?* To examine this question, I revisit three models, a security model, interest model, and influence model, to assess the degree each of these factors influence global public opinion in the twenty-first century. The fifth chapter extends the three models previously introduced to address the second research question, *how does public capacity affect global public opinion?* The fifth chapter opens with a discussion concerning the distinction between open and closed media markets to show how the concept of a free press does not adequately address the information rich environment of the twenty-first century. Next, I introduce the key term of this study *public capacity*. I describe public capacity as a latent variable, derive a measure of public capacity, and then incorporate the variable into the previous models to assess how cyber technology mediates *global public opinion* on American foreign policy. I conclude with a discussion of the strategic implications of these findings.
CHAPTER TWO
THE FOUNDATION FOR A NEW MODEL

Shortly after the end of the Cold War, R. James Woolsey, in testimony before the Senate Select Committee on Intelligence and just prior to his appointment as the Director of Central Intelligence (DCI) remarked, “We have slain a large dragon. But we live now in a jungle filled with a bewildering variety of poisonous snakes. And in many ways the dragon was easier to keep track of.”\(^1\) Woolsey’s statement accurately illustrates the post-Cold War threat environment and, in many ways, continues to speak to the obstacles confronting policymakers charged with the formulation of grand strategy. His view of the international system is echoed by scholars who point to the complexity of the twenty-first century as an obstacle to formulating a grand strategy. For example, Stephen Krasner claims that one reason there can be no successful grand strategy in the twenty-first century is the “wide disagreement about the nation’s principle security threat.”\(^2\) Relatedly, Amy Zegart argues that grand strategy is dependent on knowing the number and identity of one’s adversaries and she suggests that today this number is “wildly uncertain.”\(^3\)

There are two problems with these assessments. First, these reactions to the diffusion of power across the globe are reductionist; they misleadingly imply that grand strategy must


explicitly address all threats, large and small, to U.S. national security. Second, and more troubling, such assessments conflate the threat environment with the international system and confuse threat assessments with system analyses. One goal of this project is to dispel the common notion that grand strategy is a purely threat-centric exercise. Grand strategy is not a plan to defeat one’s adversaries, but more accurately a plan for how to best advance one’s interests in the international system.

*Reconnecting Grand Strategy to System Analysis*

The example most often upheld as the epitome of U.S. grand strategy, containment theory during the Cold War, is also, perhaps surprisingly, the source of much of the confusion that surrounds the grand strategy concept. Containment theory was designed specifically to address a bipolar setting, which permitted scholars, policymakers, and strategists to focus almost exclusively on the Soviet goal to spread communism across the globe and its subsequent existential threat to the United States. The strategic context for containment’s threat-centric approach no longer exists. Despite this obvious fact, an emphasis on hard power policy solutions still looms large.

The broader lesson to be drawn from containment theory’s success is the importance of accurately assessing the international system. Containment theory’s seemingly singular focus on the Soviet threat obscures this critical fact. Containment was not successful because of its focus on the Soviet threat per se. Containment was successful because it provided an overarching logic to American foreign policy that was commensurate with the attributes of the international system at the time. The most important strategic lesson to be taken from containment theory’s success is
that the key to formulating a viable and enduring grand strategy begins with an appreciation for the forces that drive change in the international system.

Grand strategy is perhaps best understood as a nation-state’s plan to navigate the international environment. The scope of grand strategy is much broader than a nation’s military strategy; it must address times of peace as well as times of war. JFC Fuller, a British army officer and historian, was one of the first scholars to refer to grand strategy in terms of synchronizing both a nation’s military and nonmilitary resources. Succinctly put, grand strategy is concerned with the coordination of all of a nation’s instruments of power: its military, as well as its diplomatic, informational, intelligence, economic, and covert instruments. A grand strategy must not only articulate the use of each of these instruments, but also consider how each instrument complements or detracts from one another in the broader pursuit of the nation’s goals.

Today, the National Security Strategy is widely recognized as an articulation of U.S. grand strategy. It is mandated by the Goldwater-Nichols Act of 1986, which directs the president to submit an annual report to Congress that identifies vital national security interests and objectives, discusses the adequacy of existing national defense capabilities, and evaluates the balance among all elements of national power. The report is intended to serve as the logic behind foreign policy decisions, and ultimately, to affect the efficient expenditure of the nation’s resources. The National Security Strategy was not intended to dictate policy details, but rather to describe the overall strategic context of the international system. The quality of the National

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Security Strategy is dependent on a perceptive analysis of the international system. This brings us to the question: How then do scholars and policymakers analyze the international system?

System-level Analyses of International Affairs

Kenneth Waltz’s seminal Theory of International Politics (1979) is an apt beginning point for a discussion of scholarship analyzing the international system. In this book, Waltz lays the groundwork for a system-level analysis of international affairs. He notes that the two essential elements of the international system are “the structure of the system and its interacting units.” Waltz models the nation-state as the primary unit in the international system and defines structure as the arrangement of units. His work highlights the role structure plays in determining the range of political outcomes. He suggests that, “political structure is akin to a field of forces in physics;” structure constrains units “from some actions, disposes toward others, and affects the outcomes of their interactions.”

One example Waltz offers to illustrate the effect of structure is the international system’s shift from a multipolar system before World War II to a bipolar system, dominated by the United States and the Soviet Union, following the end of World War II. As a consequence of this shift in the international structure, competition among European countries, now residing in the shadow of the United States and the Soviet Union, was greatly diminished and new political outcomes became possible. Waltz’s work provides a foundation for contemplating power transitions among nation-states, and it serves as an example of why systems analysis is critical to grand strategy.

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7 Ibid, p. 80.
8 Ibid, p. 90.
Although informative, the systems analysis presented by Waltz, centered-around polarity, does not adequately address the strategic context of the twenty-first century in which policy-makers must contemplate power diffusion as well as power transition. In *The Future of Power* (2010), Joseph S. Nye, Jr. offers an alternative analysis that makes two important theoretical leaps. First, Nye argues that power in the twenty-first century is distributed across three separate planes, and that the structure of the system itself resembles a “three dimensional chessboard.”9 The first and second dimensions of the chessboard represent military and economic power, respectively. The distribution of military power at the dawn of the twenty-first century is largely unipolar, with the United States possessing a preponderance of the world’s military might. Nye describes the second dimension as multipolar, “with the United States, Europe, Japan, and China as the major players.”10

The bottom chessboard, or third dimension, is the most distinct and interesting. Nye describes this dimension as “the realm of transnational relations that cross borders outside of government control.”11 Here Nye makes his second important theoretical leap by departing from the traditional assumption that the nation-state is the basic unit in the system. The primary players in this third dimension are an array of non-state actors that range from bankers and terrorists to hackers. Nye’s decision to model non-state actors, instead of nation-states, as the primary units in the third dimension is an important theoretical shift aimed toward capturing the effects of the diffusion of power occurring in the past twenty-five years.

There are, however, two drawbacks to Nye’s model. The obvious downside to this analysis is the risk of building a reductionist theory that introduces an overwhelming degree of

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11 Ibid, p. xv.
complexity to one’s model of the international system. The chief complaint among the grand strategy naysayers, after all, is that the international system is too complex. A less obvious drawback to Nye’s model is that by limiting the role of non-state actors to a separate plane, one fails to show how non-state actors influence events on the first and second plane. Indeed, one of the most interesting developments in the Global Information Age is the change in the power dynamic between governments and their publics both at home and abroad. More specifically, it slights the public’s improved ability to bear influence on the foreign policy decisions of both their respective and foreign governments.

One theory that effectively incorporates the role of the public in international affairs is Robert Putnam’s work entitled, “Diplomacy and Domestic Politics: The Logic of Two-Level Games.”12 Putnam’s article examines the intersection of domestic politics and international relations. He offers compelling evidence for relaxing Waltz’ unitary actor assumption. Instead of modeling the nation-state as a unitary actor, Putnam emphasizes the public’s role in shaping international politics as distinct from that of government officials. Putnam argues that international politics is best understood as a “two-level game,” comprising a national level where domestic groups interact and an international level where national governments engage with one another. Putnam notes that nation-states are “interdependent yet sovereign,” and consequently, domestic politics in separate nation-state’s often become entangled.13 Thus, modeling the nation-state as a unitary actor diminishes one’s scope of analysis in two important ways. First, it prevents fully appreciating how the public influences foreign policy decisions. Second, it

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13 Ibid, p. 430-434
obscures the impact of global cyber technology on the public’s ability to shape international politics.

By shedding light on the link between domestic processes and international politics, Putnam’s “two-level game” framework serves as a useful tool for illustrating how changes in the public’s capacity to create, transfer, and access information constitutes an important shift in the international system. To fully appreciate the strategic magnitude of this change, it is useful to contemplate how the public shapes foreign policy, and subsequently, international affairs.

_Public Opinion, Foreign Policy, and International Politics_

A good place to begin a review of the role of the public in international affairs is with the public opinion literature. A wealth of scholarship explores the causal link between public opinion and policy outcomes. A pioneer in public opinion research, V.O. Key, Jr., defined public opinion as the “opinion of private persons which government officials find prudent to heed.”

Key also developed the concept of latent public opinion, which is best summarized as “an opinion of the public that may exists at some point in the future and can impact an officials prospects for remaining in office.” Key’s work underscores the fact that the desire to retain legitimate power and authority is what makes leaders sensitive to public opinion.

Perhaps two of the best known research agendas that consider the role of public opinion on foreign policy are the “Rally ‘Round the Flag” and the “Casualty Aversion” literatures. The “Rally” literature examines the inclination of citizens to put aside political differences and

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15 This interpretation of latent public opinion is found in John Zaller, remarks, “Coming to Grips with V.O. Key’s Concept of Latent Opinion,” Symposium in Honor of Philip Converse, Boston, MA (September 2, 1998).
support leaders during international crises. This phenomenon is best exemplified by the public’s demand for action following the attacks on Pearl Harbor (1941) and the terrorist attacks of September 11, 2001. The “Casualty” literature explores the relationship of the human costs of war on the public’s willingness to continue to support a conflict. These literatures show how public opinion influences not only the initiation but also the duration and termination of interstate war. The public’s growing dissent with the Vietnam War (1961-1973) and diminishing support for intervention in Somalia (1992-1995) are prominent examples of the casualty aversion phenomenon. In both instances, the pressure of negative public opinion weighed heavily on the decision to withdraw U.S. personnel from these conflicts. The influence of public opinion on foreign policy, however, is not limited to a great crisis, such as times of war. There is also evidence to suggest that public opinion matters on foreign policy issues ranging from defense spending and diplomacy, to economic policy. 

A significant limitation of the public opinion literature is that the research is largely constrained to case studies of democracies and, with few exceptions, American politics. There is, however, a smaller literature that examines the relationship between autocratic governments

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and public audiences. In *The Logic of Political Survival*, the authors find that all leaders—regardless of regime type—must maintain the loyalty of some segment of the public, termed the winning coalition, whose support is critical for the leader to stay in office.\(^\text{19}\) Additionally, Jessica L. Weeks’ work focuses more specifically on autocratic regimes. Weeks argues that the domestic publics in some autocratic regimes are capable of holding leaders accountable for their foreign policy actions.\(^\text{20}\) These works demonstrate that most, if not all, world leaders consider heeding public opinion to be prudent. The public uprisings that characterized the Arab Spring are evidence of this claim and foreshadow the growing power of the public in the twenty-first century. As we will later see in this study, there is good reason to believe that the public’s power to affect change in the international system is on the cusp of even greater expansion. For now, the bottom line is that—with only a very small exception—publics across the globe play a role in shaping their government’s foreign policy.

So far this review has assessed the ability of publics to shape the foreign policy decisions of their own governments. Prominent examples of the public’s influence include the decision of the United States to go to war following the tragedies of Pearl Harbor and September 11, the decision of the United States to withdraw forces from Vietnam and Somalia, and the public uprisings across the Middle East in 2011 that resulted in regime change in Tunisia, Egypt, and Libya. Next this analysis considers how a government’s foreign policies may also be subject to the opinion of a foreign public.

The final step in this analysis is to move from an analysis of how domestic public opinion shapes foreign policy and consider how *global public opinion* may also bear influence on a


nation-state’s foreign policy and international politics, more broadly. Recent authors that acknowledge the importance of global public opinion on foreign policy and international affairs include Alexander Thompson (2006) and Erik Voeten (2005). These authors show that in many cases the opinion of a foreign public is as critical to a nation’s foreign policy success as is domestic public opinion. As a consequence, a government’s ability to legitimize controversial foreign policies as a means to shape the opinion of foreign publics is an increasingly essential component of a successful foreign policy agenda.

Despite the growing policy relevance of this topic, there is a dearth of research examining the role of the public in international affairs. Alexander Thompson’s and Erik Voeten’s works are two of the rare studies in the mainstream international relations literature that examine the relationship between governments and foreign publics. A key factor of the public’s ability to influence international affairs is access to information. The significance of this relationship, and subsequently, the significance of the lack of scholarship examining this relationship, is amplified by the Global Information Age.

*Information as Power in World Politics*

So far, this review has shown how citizens residing in democracies shape their government’s foreign policies by compelling their leaders to respond to international crises such as the Japanese attack on Pearl Harbor and the terrorist attacks on 9-11 and to withdraw from conflict in Vietnam and Somalia. Additionally, it has shown that citizens residing in autocracies also bear influence on their government’s policy decisions, as demonstrated by the Arab Spring.

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Lastly, the literature review has shown that global public opinion is also an important component to achieving a nation’s foreign policy goals. It is now useful to consider the public’s ability to do all of the above, and how the spread of cyber technology magnifies the public’s role in international affairs.

The work of Matthew A. Baum and Philip B. K. Potter examines the distinct roles played by the public, the government, and the media in shaping foreign policy. These authors model the formulation of foreign policy as a marketplace, driven by the supply and demand for the “key market commodity—information.” In their view, the public’s capacity to influence foreign policy is a function of the information gap between the government and the public. The government’s ability to make autonomous foreign policy decisions diminishes as the public’s access to information increases. Their work is useful for considering how the spread of cyber technology changes the “market” dynamic between the public, the government, and the media. Their concept of information as a commodity may be applied to an international level of analysis to show how the diffusion of information technology across the globe is closing the information gap and empowering publics to play a greater role in international politics.

Additionally, Robert M. Entman provides a model, which he calls “Cascade Activation” that shows how information about foreign affairs is disseminated and transformed into political power. Entman’s model identifies four distinct actors involved in the spread of political information. These actors are the current administration; other elites such as Congress, ex-officials and experts; the media; and finally, the public. Entman’s model highlights the

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discrepancy in the power of these actors to control the national conversation about foreign affairs by carefully framing events and issues. Entman defines framing as “selecting and highlighting some facets of events or issues, and making connections among them so as to promote a particular interpretation, evaluation, or solution.”25 The model emphasizes how elites attempt to convert information into political power by framing events in a manner that generates widespread support for their preferred policy. In Entman’s model, the preponderance of power resides with the originator of the frame, the administration, and is filtered by other elites and the news media before reaching the public. The Cascade Activation model is useful for considering how the power dynamic among actors changes when the public begins to compete with elites as the originator of frames for foreign events.

Recent research is beginning to examine more closely how the information age is further changing the dynamic between governments and their citizens. Prominent among these works are Karen Geiselhart’s examination of government transparency and accountability on the Internet and Xinyuan Dai’s examination of how domestic audiences are now more capable of holding governments accountable.26 These works underscore how the information age has not only resulted in a diffusion of information, but ultimately a diffusion of power away from government actors and increasingly toward the public.

This review of system-level analyses, the public’s role in international politics, and how information is translated into political power provides the building blocks necessary for crafting a model of the international system in which foreign publics are depicted as discrete actors.

Next, the third chapter applies this foundation of knowledge to develop a model of international affairs that can account for the role of foreign publics and global public opinion. The decision to model foreign publics as discrete actors is a theoretical simplification that draws attention to the most strategically relevant features of the twenty-first century international system: the spread of cyber technology and the subsequent diffusion of global power. Such a lens will underscore the strategic importance of global public opinion on international affairs, and help diminish the seeming complexity of the international system that has impeded the development of an enduring U.S. grand strategy throughout the post-Cold War period.
CHAPTER THREE

THREE-LEVEL GAMES: A METAPHOR FOR GRAND STRATEGY IN THE GLOBAL INFORMATION AGE

A singular focus on interactions among nation-states can be blinding to some of the most important problems facing national security experts and international relations scholars. In this chapter I present a contemporary model of international politics that highlights how cyber technology has elevated the role of foreign publics and influences global public opinion. The model demonstrates the value of supplementing America’s historically threat and economic-centric grand strategies with a more robust population-centric approach to international politics.

To appreciate the diffusion of power that has occurred in the twenty-first century requires a model that distinguishes between governments and publics. The key to this analysis is reimagining the basic unit of the international system—the nation-state. During the last twenty-five years (1991-2017), the nation-state, an institution that is over 350 years old, has undergone significant rewiring. This rewiring, brought on by the global spread of cyber technology, has led to wider dissemination of information, enhanced coordination among citizens, and more effective activism. The Internet, coupled with cellular technology, has supercharged the public’s access to information and its capacity to influence politics, domestic and foreign.

I propose that international politics in this new era is best conceived as a three-level game. The three-level game metaphor extends Robert Putnam’s two-level game by accounting not only for the interests of domestic groups and foreign governments, but also by developing a
greater sensitivity for the increasingly independent will and opinion of foreign publics. Cyber technology has altered the dynamic between publics and their governments, and in doing so, changed the very nature of the nation-state from an institution in which governments enjoy broad autonomy, to an institution in which citizens, regardless of regime type, enjoy greater oversight of government officials, on both the national and international stage. Recognition of this fundamental change in the nature of the nation-state provides a more accurate view of world politics. From a policy perspective, it illuminates important relationships, namely the relationship between governments and foreign publics, previously overlooked and undervalued by scholars and policymakers alike.

The Explanatory Power of Nation-State Analysis

Since the Treaty of Westphalia in 1648, the nation-state has reigned as the dominant political entity in world affairs. For over 350 years, the nation-state has been the organizing principle that structured economic, political, and in many cases, spiritual life across the globe. It has served as the primary means for channeling and translating public will into political action, domestically and internationally. Throughout this period, understanding world affairs required an appreciation for the power and preferences of the world’s great nation-states. This fact is reflected in the predominant theories that comprise the field of International Relations—realism, liberalism, and constructivism—all of which recognize the nation-state as the central actor in international politics.

The nation-state, however, is a curious and unusual “unit” because it is not a single entity. More precisely, as its name implies, the nation-state is a compound unit composed of two separate entities—the public, or nation, along with the government, or state. These two entities,
the public and the government, are essentially contracted with one another to form the nation-state.\(^1\) Cyber technology, however, is challenging this traditional arrangement by closing the information gap that has existed between these two actors. Across the globe, the power of the public has steadily increased with greater access to information, while the autonomy enjoyed by government officials has steadily eroded.

The strength of the relationship between the world’s publics and their respective governments corresponds to the degree it is useful to model the nation-state as a unitary actor. The extent to which a government’s policies effectively represent its public’s interest determines the health of the nation-state contract. Ideally, the public and government’s policy preferences are in harmony. In this ideal case, the nation-state’s foreign policies are marked by a unified national effort, and the government is able to efficiently mobilize the public and convert the nation’s resources to pursue favorable international outcomes. Conversely, the relationship between the public and the government is weakened when the government fails to adequately represent the public’s interest. When a large segment of a nation’s population does not support a government’s policies, the government is less capable of converting the nation’s resources into desired outcomes. In this case, there is a lack of unified effort and the government suffers from a loss of power and authority. Cyber technology can strengthen or erode this internal coherence by permitting citizens to more easily critique their government’s actions and mobilize support for alternative policies. Additionally, cyber technology opens the door wider to allow other governments to mingle in one’s domestic politics.

Cyber technology enhances the public’s ability to act independently. A prime example is Julian Assange, the founder of WikiLeaks, an international non-profit that strives to publish

classified government information in the public space.\textsuperscript{2} Disagreement between the public and its respective government may lead to segments of the public devising alternative means or employing non-state agents to pursue its interests. This is a common phenomenon in the twenty-first century and a primary cause of the system’s growing complexity. The increase in non-state actors in international politics, from nongovernmental organizations to terrorist organizations, is evidence of cyber technology’s ability to amplify fissures between governments and their publics. It is also evidence of the public’s ability to increasingly circumvent their respective government’s authority. This global phenomenon has not only altered the power dynamic between publics and their respective governments, but also inter-state relationships. Domestic politics no longer “stops at the water’s edge.” This fundamental change, enabled by cyber technology, diminishes the explanatory power of the predominant International Relations theories as they currently exist. Moreover, it demands theoretical innovation.

\textit{An Alternative Approach}

One theoretical alternative is to divide the nation-state into its principal parts—the nation and the state—and model each part as a separate actor. The first component, the nation, broadly refers to the population, or the public, that share common interests and culture, and reside within a common territory. Thus in a \textit{population-centric} model, it is possible to speak of foreign \textit{publics} such as the Chinese, Russian, or the Iranian public, as independent international actors.

The second component, the state, broadly refers to the government institutions and officials that exercise authority over the population residing within its sovereign territory. Thus,

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it is possible to speak of the Chinese, Russian, or the Iranian government, as an independent international actor.

The decision to theoretically separate the nation-state into its principal parts emphasizes the functional similarity of publics and governments across the globe, regardless of nationality or regime type. The basic assumption of this theory is that publics and their respective governments are contracted in a principal-agent relationship. On the one hand, the public is the principal, or the central actor, that grants authority to the government to consolidate and organize resources, and to exercise power in the international arena. On the other hand, the government is the public’s agent and represents the public’s interest, or the national interest, in international politics. In essence, the public is the kernel or the core of the nation-state; it is the one true independent actor. The government and all its trappings are unveiled to be mere agents dependent on the public’s continued support.\(^3\)

Although the principal-agent relationship varies in degree by regime type, it is accurate for both democracies and autocracies. In a democracy, governments orchestrate the military, diplomatic, economic, and informational instruments of power, while publics retain the ultimate authority to approve or disapprove of the government’s policies. In an autocracy, publics do not enjoy the same level of participation, however, autocratic regimes, nonetheless, require the consent of the population to exercise power. This consent may be in the form of “obedience, passive support, or active cooperation.”\(^4\) In this view, the Saudi public as well as the American public may each be modeled as principal actors that possess the power to shape the actions of their government agents, albeit, a public residing under an authoritarian regime often navigates a

\(^3\) This statement reflects the notion of popular sovereignty promoted and defended by philosophers such as John Locke, *The Second Treatise on Civil Government*, 1689.

more treacherous path. Even in the most repressive regimes, nonetheless, governments require the consent of their public to govern. Figure 3.1 depicts the principal parts of the nation-state.

![Diagram of Nation-State Components]

Figure 3.1: The Principal Components of the Nation-state

The nation-state divided into its principal components; the nation, that is the public, and the state, that is the government. “G” denotes the government, while “P” denotes the public.

Modeling the individual components of the nation-state as independent actors has three theoretical advantages. First, it highlights the full effect of the phenomenon of interest, the spread of cyber technology and the resulting diffusion of power, from government agents to the public. This permits scholars and policymakers to observe the spread of cyber technology across

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actors, while simultaneously accounting for the prominent power nation-states continue to wield in the international system.

Second, depicting the principal parts of the nation-state allows policymakers to observe and better understand conflicts that may exist between publics and their respective governments. Government policy and public preferences are rarely in harmony. Previously, internal conflict was relegated to the domestic realm. Conflicts of interest between the Chinese (or the Russian, Iranian, etc…) public and the Chinese (or the Russian, Iranian, etc…) government, however, bear important strategic implications at the international level. Separating the nation from the state permits strategist to better understand these dynamics and the import of global public opinion.

Finally, new relationships are emerging on the international scene as a result of the proliferation of cyber technology. Most notably is the relationship between governments and foreign publics. This is a phenomenon that demands greater attention from international relations scholars and American foreign policymakers. The growing ability of governments to connect with and influence foreign publics represents a host of new strategic opportunities and vulnerabilities. Russian meddling in the U.S. 2016 presidential election is one prominent example that illustrates the urgent need to model foreign publics and foreign governments separately.6 Additionally, this model underscores the value of a strong public diplomacy component in American foreign policy. Autocracies are especially susceptible to preference gaps between the public and the government. Not to mention, these differences grow more pronounced with the spread of cyber technology.

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This fact speaks directly to the underlying question that motivates this study: Does the complexity of the international system invalidate grand strategy? More specifically, should the growing number and variety of threats in the contemporary security environment remain the primary focus of grand strategy scholars and policymakers? I argue that a better alternative to abandoning grand strategy is theoretical innovation. After all, the purpose of theory is to simplify the complex. The seeming complexity of the international system is not justification for abandoning grand strategy, rather, the complexity we perceive is an indication that the dominant theories in International Relations are in need of an upgrade.

The Two-level Game

Prominent among theories that examine the distinct influence of publics and governments on international politics is Robert Putnam’s “Diplomacy and Domestic Politics: The Logic of Two-level Games.” I build on Putnam’s “two-level game” model to explicate the effect of global cyber technology on the international system. Putnam’s model dissects nation-state interactions to offer a more thorough examination of the means by which publics shape international agreements, and more generally foreign policy at home and abroad. His work offers compelling evidence for relaxing the traditional assumption that nation-states be treated as the central actors on the international scene. The “two-level game” model emphasizes the public’s role in shaping international negotiations.

Putnam’s “two-level game” model shows that at the international level, which he refers to as Level I, government officials representing separate nation-states negotiate with one another via the traditional diplomatic process. Traditional diplomacy may be thought of as a meeting between agents of independent countries, with the intent to explore opportunities for cooperation
concerning a particular issue. Traditional diplomacy allows governments to express their goals and define the boundaries of the terms they are willing to accept. Most notably, it allows government agents to determine the extent their preferences on a specific issue overlap with the preferences of other nation-states. Traditional diplomacy affords government officials a wealth of information about foreign governments and the best avenues to achieve national goals.

The work of government agents is not complete at the end of international negotiations. In fact, for many agents, the most difficult task is just beginning. The agent’s, or government’s, authority to exercise power abroad is based upon pursuit of the public’s interest. Therefore, in order to maintain legitimate authority as the public’s agent, a government must reconcile its policies, to some degree, with the desires of its respective public. Consequently, government officials must justify Level I decisions to the public. The means by which this justification process is accomplished varies widely by regime type.

This second stage in Putnam’s two-level process, domestic politics, highlights the public’s role in formulating its country’s respective foreign policy. At the domestic level, or what Putnam refers to as Level II, government agents engage with their respective public to reconcile the findings of Level I negotiations with their constituents. Although modeled separately, Level II activities are an ongoing process, occurring both prior to and after Level I engagement. The myriad activities that occur at the domestic level permit the public to refine and convey their concerns and desires to the government. Level II activities ultimately determine which elements of a proposed policy the public, or the principal, deems acceptable.

As previously noted, the strength of a nation-state’s principal-agent relationship varies by polity, but regardless of regime type the relationship nonetheless holds at some level. The principal-agent contract is strongest for democratic nation-states and weakens with more
authoritarian regimes. Democratic institutions, in a representative democracy, inherently facilitate the ability of the public to participate in and influence foreign policy decisions through level II processes, such as voting and lobbying. It is important, though, not to simply dismiss the power of publics residing in authoritarian regimes. In authoritarian regimes, the public’s reaction to government policies may range from passive consent to active opposition.

The essential point is that government agents are not free to make policy decisions independently; they are constrained by the demands of their respective publics. Public dissatisfaction with a government’s policies, or lack of policy, may result in several outcomes. One possible outcome is that the public will independently mobilize and establish a non-state agent to pursue its interest. Non-governmental Organizations and terrorist organizations represent the range of non-state actors operating at the international level. Other possible outcomes include the loss of an election in the case of a democratic leader, or revolution in the case of an autocratic ruler.7

Bashar al-Assad is one of several dictators caught-up in the Arab Spring that can attest to the strength of the principal-agent relationship between publics and authoritarian governments. In the case of the al-Assad regime, the Syrian public’s dissatisfaction with the regime led to a civil war that severely challenged al-Assad’s ability to impose his authority on the Syrian public. With the help of Russian intervention, al-Assad retained the presidency, however, his standing in the international community as the right and proper leader of Syria suffered.

In order to craft acceptable policies, foreign or domestic, government officials must simultaneously be aware of the preferences of foreign governments at Level I and the boundaries

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of the preferences of their respective public at Level II. An agreement among government negotiators at Level I is inconsequential if the agreement has no hope of approval (or passive consent) by each country’s public, at Level II. Graphically separating the various actors that participate at the domestic and international levels underscores the degree of the public’s potential to influence international politics. By combining Level I and Level II negotiations, Putnam’s model illustrates that government actors must play a “two-level game.” Figure 3.2 depicts the two-level game.

![Figure 3.2: The Two-level Game](image)

The two-level game highlights the fact that government agents must reconcile the preferences of both the public and foreign governments.

Finally, Putnam coins the result of the two-level game the “win-set.” The win-set encompasses the common conditions that are acceptable to all actors at both Level I and Level II. These actors include government agents of each nation-state and each nation-state’s public.
The win-set illustrates the primary role *public opinion* plays in determining the bounds of international politics. Agreements among government officials at Level I are shown to be empty promises without the consent of the public at Level II. To illustrate this point, Putnam introduces the concept of *involuntary defection*—the inability of a government agent to deliver on a promise due to failed ratification at home.\(^8\) Putnam’s analysis may be extended to show that public opinion not only determines the bounds of the win-set, but also is capable of shifting the win-set. An illustration of the win-set draws one’s attention to the integral role of public opinion in determining international outcomes. The Venn diagram in Figure 3.3 graphically depicts Putnam’s win-set.

![Figure 3.3: The Win-set](image)

The result of two-level games, the win-set, is the overlap of all Level I and Level II preferences from each participating nation-state.

Government agents have historically enjoyed a strong informational advantage over the public. In fact, in many ways, the government’s primary duty is to develop expertise on political issues. As such, government agents have access to a wide array of resources dedicated to collecting, analyzing, and better understanding foreign affairs. These resources include large

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staffs of highly qualified individuals, near unlimited access to open-source material, and access to classified material. In addition to resources, government agents have the advantage of meeting first hand with the agents of other nation-states. The government’s access to resources and its ability to gain first hand knowledge give government officials an overwhelming command of the issues relative to the public. This is especially true in the foreign policy arena where public knowledge and interest is historically low.

Nevertheless, as the “two-level model” shows, the government remains beholden to the public and the public’s opinion on international politics. Despite this fact, the government enjoys much control over the manner in which the public reacts to foreign policy proposals. Traditionally, the public learns of foreign affairs from information provided by the government. The government is in the envious position to be both the agent of the public and the main supplier of political information to the public. As the public’s agent, the government has an incentive to use its informational advantage to shape its interaction with the public (Level II activities) and the public’s perception of events.

Robert M. Entman’s “Cascade Activation” model aids our understanding of how political information was traditionally converted into political power. Furthermore, Entman’s model highlights the fact that governments have historically possessed the preponderance of that power. The model illustrates how information about international politics flows down from government agents, through the media, and finally to the public. In the absence of an alternative and unbiased source of the facts, it is difficult for the public to refute the government’s view of international events. As a result, the government is often able to drive public opinion by selectively highlighting specific aspects of an issue and framing its foreign policies in a favorable light.

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Entman’s model is useful for demonstrating how government agents have historically capitalized on this *information gap* between the government and the public to frame and ultimately shape public opinion. More broadly, the model is also useful for understanding how the spread of cyber technology is changing the power dynamic between publics and their governments. Figure 3.4 depicts Entman’s “Cascade Activation” model.
Figure 3.4: The Cascade Activation Model

The bold arrows indicate the cascade of information from the administration down to the public. The dashed arrows represent the flow of public opinion from the public up to the administration.
Public Capacity Changes the Game

The Global Information Age has changed the power dynamic between publics and governments, and subsequently, the international environment. Tracing the link between information and power is essential to fully appreciating this change. The key commodity in the foreign policy process (at both Level I and Level II negotiations) is information.¹⁰ In the accurate trope, information is power. The public’s ability to influence or react to government policy is conditioned not only by regime type, but also increasingly by the public’s access to information about the government’s policies, and the public’s ability to coordinate collective action.

The discussion of how information is converted into political power brings us to the key concept in this dissertation, public capacity. I define public capacity as the extent citizens are able to access, produce, store, and exchange information, build awareness of political events, and collaborate and coordinate action locally and globally. Access to cyber technology is the primary driver of public capacity. During the past twenty-five years there has been a significant shift in information and communication capabilities across domestic (Level II) and international (Level I) actors. Technology that was once the sole domain of governments is now widely available to individuals. This includes an array of inexpensive means to communicate world-wide, around the clock coverage and minute-by-minute updates on international events, and the ability to transmit, receive, and store unprecedented volumes of information. Today, publics across the globe enjoy not only much greater access to information about world events, but also a

greater volume of available information, and a greater variety in the sources providing political information. Table 3.1 illustrates the global rise in public capacity.11

Table 3.1 is a sample of fourteen nation-states representing a variety of regime types. The table shows a count of mobile cellular subscriptions and Internet access, respectively, per 100 people in each country from 2000 to 2014. Moving across each row in Table 3.1 one can see a steady rise in public capacity within each of the individual fourteen nation-states. The columns of Table 3.1 offer a system-wide, or collective, view of this phenomenon for specified years, beginning in 2000 and ending in 2014. A comparison of the year 2000 column and the year 2014 column illustrates the dramatic expansion in public capacity that has occurred across the entire international system during the first decade of the twenty-first century. Table 3.1 underscores the fact that global public capacity has improved tremendously across the entire sample of nation-states, authoritarian and democratic regimes alike, although authoritarian regimes generally lag behind democratic ones. In summary, Table 3.1 suggests that not only has the international system experienced a significant change during the beginning of the twenty-first century, but also that there is greater transformation to come.

11 The data contained in Table 3.1 are compiled from the World Bank’s World Development Indicators (WDI). The WDI database is at http://data.worldbank.org/. The two indicators presented in Table 3.1 are mobile cellular subscriptions and Internet access. Each of these indicators is located under the database’s “Infrastructure” topic. The first value in each column indicates the number of mobile cellular subscriptions per 100 persons. The second value is Internet access per 100 persons. For example, in China in 2005, 30% of the population had mobile cellular subscriptions and 8.5% of the population had access to the Internet. Values over 100 indicate that there are more subscriptions than individuals. An asterisk (*) denotes that data is not available.
Such striking change in the availability of cyber technology affects the power dynamic among actors at the domestic and international levels in four distinct ways. First, a rise in public capacity diminishes the *information gap* between publics and governments by lowering barriers to the flow of information around the globe. Second, it permits more egalitarian reporting of international events by allowing the public to present *alternative frames* of government policies. An increase in public capacity affects not only *what* events are reported, but also *how* they are reported. Third, public capacity increases the *reverberation* of political messages and events. It affects *how broadly* events are reported and *how frequently* they are repeated. The public’s access to a greater volume and variety of information, induces more frequent updating, and hones global public opinion about government policies and actions. Fourth, a rise in public capacity improves the public’s ability to coordinate and mobilize in opposition to or support of government action. In short, the concept of public capacity helps explain how cyber technology has diminished state autonomy and elevated the role of foreign publics and global public opinion in shaping political outcomes.

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Table 3.1: The Global Rise in Public Capacity
Entman’s Cascade Activation model is useful for illustrating the significance of this change at the domestic level (level-II). As public capacity improves, the public becomes more capable of not only accessing greater volumes of information, but also producing politically relevant information, and coordinating to resolve collective action problems. As public capacity increases, the public becomes an alternative supplier of the key commodity—information.

In some instances, an increase in public capacity can reverse the traditional informational asymmetries between the public and the government. Instead of information about an event cascading down from elites, it is possible for information to flow up from the public to the government. Additionally, the public is more capable of influencing political outcomes by sharpening global public opinion. As a producer of information, the public holds the initiative to construct frames and influence how the news is received domestically and internationally. Figure 3.5 depicts Entman’s Cascade Activation model altered to show the impact of the rise of public capacity.
Figure 3.5: The Cascade Activation Model Depicting the Rise in Public Capacity
No longer is the “news” dominated solely by government elites filtering facts through state run, or large, well-established, media outlets. Instead individual citizens, often personally involved in events, are capable of producing original stories that reach out to global audiences. A technologically enabled public can repackaging stories as blogs, tweets, videos, emails, or calls; repeatedly sharing the news they believe matters, and emphasizing the elements they believe are most important.

The campaign “Raqqa is Being Slaughtered Silently,” offers a dramatic example. This campaign hosts a website that documents living conditions in the city and province of al-Raqqa, Syria. The site claims to publicly document atrocities committed by the Bashar al-Assad regime and the Islamic State of Iraq and Syria (ISIS) terrorist organization. The intent of the campaign is to provoke an international response to the crisis in Syria. Much of the content that appears on the website is from citizen-journalists residing in the city of al-Raqqa. Despite great individual risk, these citizen-journalists elect to stand in opposition to the al-Assad government and ISIS. When the citizens of al-Raqqa supply information about local conditions, to domestic and international audiences, it is a very different story than when the Assad regime presents the situation in al-Raqqa. The Syrian public and the al-Assad government frame the story from different perspectives. In the absence of cyber technology—Internet, mobile phones, and personal computers—it is likely that only the government’s perspective would reach the international community.

Furthermore, the citizen-journalists in al-Raqqa exemplify the fact that citizens in every country, regardless of regime type, wield a certain degree of political power, even if that power

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Cyber technology permitted the Syrian public to bring their side of the story to the “market place” of international politics. The citizens of al-Raqqa were able to circulate their stories abroad, build awareness of their plight, and contribute to the international conversation. Social media is a key aspect of the al-Raqqa opposition, and more generally, an essential element to unleashing the Syrian public’s political power. Despite facing great personal risk, citizen-reporters such as those participating in the “Raqqa is Being Slaughtered” campaign, are capable of offering alternative frames and narratives that challenge government perspectives, sustain public awareness, and help shape global public opinion.

Governments have historically enjoyed a strong informational advantage over the public, especially in the foreign policy arena. Today, however, citizens are less and less dependent solely on their government for facts about local and global events. As a result, the government’s ability to frame issues, shape public opinion, and dictate policy agendas, is eroding. This change permits publics across the globe to more effectively leverage their principal role in domestic politics, and subsequently, to bear greater influence on both domestic and international outcomes.

This is not to say that governments no longer have an informational advantage over the public, only that the information gap between the public and the government is diminishing. Putnam recognized the importance of this phenomenon and that “messages from abroad could change minds” and “‘reverberate’ within domestic politics.” He could not envision, however, the extent the public—enabled by cyber technology— influences the content of messages and the

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13 The notion that all citizens, despite regime type, can exercise some degree of political power is examined in detail in Gene Sharp, The Politics of Non-Violent Action (Part I): Power and Struggle, ninth printing, (Extending Horizons Books, 2006).

degree of reverberation in the twenty-first century. Figure 3.6 depicts Putnam’s two-level game altered to show the increase in public capacity.

Figure 3.6: The Two-level Game Depicting the Rise in Public Capacity

The dashed circles represent an expansion in the public’s access to information, and subsequently, political power owing to advancements in cyber technology.

The Three-level Game

Foreign publics are increasingly in the forefront of international politics. This change compels policymakers to view the world through a new strategic lens—a lens that brings into focus the power of foreign publics alongside the power wielded by foreign governments. The relationship between foreign publics and governments, however, does not fit neatly in Putnam’s

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Level-I or Level-II. It exists in a third plane or dimension—a Level-III. The two-level game requires further extension to illustrate the full effect of the dramatic rise in public capacity. International politics in the Global Information Age is more accurately represented as a three-level game—a game in which the outcome is determined by the will and desire of domestic publics and foreign governments as well as the opinion of foreign publics, or collectively, *global public opinion*. Figure 3.7 depicts the three-level game.

Figure 3.7: The Three-level Game

The three-level game highlights the fact that the rise in public capacity permits greater opportunity for governments to pursue independent relationships with foreign publics and vice versa.

The three-level game shows how citizens, independent of the government or media outlets, can invigorate and sustain discussions with foreign audiences despite the desires of their
respective government. Again, an example from the Arab Spring (2010) lends support to this claim. News of the self-immolation of Mohamed Bouazizi, a Tunisian street vendor, in protest against a repressive regime sparked a revolution that led to the overthrow of the Tunisian government. The story did not stop in Tunisia. Bouazizi’s plight resonated throughout North Africa and the Middle East. Wide and repeated circulation of his story brought public opinion in the region to a boil, roused other repressed publics, and helped inspire a wave of demonstrations, protests, and riots. In many cases, individual citizens using social media reported on these events. Private blogs and videos were picked up by the mainstream media and presented in contrast to the formal accounts offered by government authorities. The proliferation of these personal narratives reverberated around the globe and boosted global public opinion in support for the protestors. This example shows that cyber technology is a powerful tool for all publics, however, from a strategic perspective it is important to note that it is especially threatening to authoritarian regimes.

Of course, many authoritarian governments, for example China, Saudi Arabia, and Iran, monitor and limit the flow of information, especially politically relevant information, available to their citizens. These governments, however, face substantial obstacles to effectively controlling the public’s ability to share information and stories. One obstacle is user innovation. Publics have demonstrated a penchant for devising creative ways to circumvent government censorship. A prominent example is the Chinese government’s attempt to censor content referencing the Tiananmen Square protest of 1989. In the summer of 1989, the Chinese government ordered a

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16 Democracies are inherently better at handling an empowered public. Autocratic regimes, however, seem destined to face increasing challenges to their rule.
violent crackdown on pro-democracy protestors that had converged in Beijing’s Tiananmen Square. Since, the Chinese government has actively sought to minimize any recognition of the protest or the government’s violent response. Today the Chinese government routinely filters social networks for references to the Tiananmen protest.

The government’s efforts are useful in limiting a free and open discussion of Tiananmen. They fall far short, however, from preventing the topic from arising in the public space. Evoking the incident has devolved into a cat and mouse game with the public devising ever-new and clever ways of referencing the protest. One iconic photo, now banned, shows a defiant protestors blocking a column of Chinese tanks. Forbidden by the Chinese government, the image, nonetheless, continues to appear on Weibo, China’s social network. Users of Weibo, frequently manipulate the image to avoid detection by censors. For example, one doctored image replaces the column of tanks with a column of large yellow “rubber duckies.”

Another creative image shows a hand of cards with the eight, nine, six, and four of spades being held in Beijing Square as a reference to the date of the protest, June 4, 1989. These examples speak to the fact that there are infinite possibilities for creative users to circumvent government censors. In many ways, censorship has the opposite of its desired effect. Instead of banishing the Tiananmen protest from memory, government censorship fuels curiosity at home and greater attention abroad.

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A more prominent obstacle governments face when limiting the use of cyber technology by their public is coined the “Dictators Digital Dilemma.” Stemming the domestic flow of information may mitigate some problems, but it exacerbates others. There are major economic and political risks associated with over-restrictive Internet governance. An open Internet is vital to connecting national economies to global trade. The economic advantages gained by permitting broad connectivity are enormous. The potential political ramifications of permitting widespread use of cyber technology, however, can be equally enormous, especially for authoritarian regimes. For authoritarian governments, the Global Information Age pits these two goals, economic vitality and the consolidation of power, against one another.

Government efforts to curb this trend of transparency face significant challenges. The size, mobility, low cost, and ease of use of today’s cyber technologies complicate government attempts to control the flow of information across international borders. User innovation and the “Dictators Digital Dilemma” suggest that the rise in public capacity and the three-level game concept are widely applicable across the international system.

Smart Power and Global Public Opinion in the Three-level Game

The three-level game provides important indications to the kinds of policies and combinations of power that are most effective in this new era of increased transparency. It underscores the central role of global public opinion in the information age and draws our attention to how global public opinion is a growing political force in the international system. The simple premise that favorable public opinion enables the success of a foreign policy is

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amplified by a rise in public capacity. Conversely, unfavorable public opinion can signal demise or severely constrain a policy’s effect. In the information rich environment of the twenty-first century, global public opinion acts as the center of gravity of international politics. How foreign publics perceive a nation’s foreign policy’s, as either just or unjust, excessive or moral, has strategic ramifications.

There is much rhetoric among political leaders about “smart power” and the need for greater interagency cooperation among the institutions that exercise the nation’s diplomatic, intelligence, military, and economic instruments of power. Smart power implies the deft integration of hard power instruments (military and economic might) and soft power instruments (diplomacy and development efforts) in a complementary fashion. The three-level game helps strategist and policymakers understand the risk associated with an unbalanced foreign policy, particularly a foreign policy that relies too heavily on the military.

In an increasingly interconnected world, the use of force is often a liability as much as it is an asset. The potential negative consequences associated with the application of coercive policies have dramatically increased. As public capacity increases, so does the likelihood that the misuse of force or an error in the application of force resulting in collateral damage or civilian causalities will be transmitted across the globe in near real-time.

One example of how the magnitude of repercussions for ill-conceived or poorly executed strategies has changed is the accidental bombing of a Doctors Without Borders hospital in Afghanistan (2015). The incident resulted in the death of forty-two civilian patients, physicians, and staff.22 From a strategic perspective the incident damaged the credibility of the U.S. government as stories and images of the incident circulate around the globe. Whether owing to

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honest miscalculations, bad luck, or poor judgment, errors involving the exercise of military force provoke widespread condemnation, and rightly so. Not to be mistaken, military power remains a necessary and central feature of U.S. grand strategy, but as the United States has witnessed during the past twenty-five years, the risks related to an overreliance on military might are amplified in the information age.

These examples (Raqqa is Being Slaughtered, the Arab Spring, Tiananmen Square, and the Bombing of the Doctors Without Borders Hospital) illustrate how cyber technology has permitted the public to question, challenge, and oppose government policies. The examples bring to light the gravity of a rise in public capacity and the significance of the three-level game, but taken alone, they paint an incomplete picture. These examples portray an empowered public consistently disputing government policies and actions. There are, however, two sides to a rise in public capacity.

An increase in public capacity can rouse dissent against or it may bolster support for the government. On one side, an increase in public capacity empowers the public to more forcefully critique government policies that are deemed unjust, misguided, or inefficient. As the above examples show, public capacity can fuel opposition to and sharpen public opinion against government policies that are deemed unfair or extreme.

On the other side, public capacity may not always manifest as a force in opposition to the government. An increase in public capacity may work in the government’s favor by strengthening the effect of government narratives. This side of public capacity is less dramatic though equally important. An increase in public capacity exposes citizens to the real challenges and perils that exist in the international system. Better communication and information can improve citizens’ understanding of the scope and complexity surrounding many controversial
issues and give citizens a greater appreciation for the tough job of advancing the nation’s interests. In this way an increase in public capacity can make citizens more sympathetic to and supportive of government policies, and less judgmental of honest mistakes and unintended consequences. It can strengthen government narratives that the public deems purposeful and beneficial. In theory, a greater diversity and volume of news can intensify global public opinion for or against the government. How public capacity affects global public opinion has important implications for U.S. grand strategy. The remainder of this dissertation examines the relationship between public capacity and global public opinion.

Research Questions and Hypotheses

The three-level game is a broad theory that spawns a rich research agenda and a host of research questions. I limit the scope of this study to examining two research questions: what factors shape global public opinion and how does public capacity affect global public opinion? Understanding the relationship between public capacity and the factors that shape global public opinion is the first step in the broader research agenda. As the win-set illustrates, global public opinion is central to determining the bounds of international politics and integral to shaping international outcomes. Understanding the affect of public capacity on global public opinion establishes a jumping off point for future research exploring questions concerning public capacity’s affect on policy more deeply.

To examine the effect of public capacity on global public opinion, I first examine the factors that influence a foreign public’s attitude toward American foreign policy. These factors range from variables measuring security interests and socialized perceptions to influence by the United States. To establish this baseline, I replicate a 2005 study that examined the factors that
shape global public opinion and I assess whether the findings persist throughout the 2002 - 2015 time period. The following hypotheses are derived from the results of the 2005 study:

**H1:** Global public opinion of the United States is *more* favorable among countries that are NATO members.

**H2:** Global public opinion of the United States is *more* favorable among countries that experienced a recent terrorist incident.

**H3:** Global public opinion of the United States is *less* favorable among countries with large Muslim populations.

**H4:** Global public opinion of the United States is *more* favorable among countries that have a free press.

Additionally, I present two more variables that are important for explaining global public opinion of the United States during the 2002-2015 timeframe. The first variable accounts for America’s controversial decision to invade Iraq and the ensuing Iraq War (2003-2011). The second variable accounts for the historic election of President Barack Obama and his subsequent two terms in office (2009 – 2016). I derive two hypotheses from these variables:

**H5:** Global public opinion of the United States is *less* favorable during the Iraq War.

**H6:** Global public opinion of the United States is *more* favorable during the presidency of Barack Obama.

Next, I incorporate the key concept, *public capacity*, into the global public opinion model. I theorize that public capacity intensifies the effect of the factors in the model. The public opinion literature informs the hypotheses. Public opinion theory claims that an increase in
magnitude, or repetition, of a message can move, or intensify, opinion in a desired direction.\textsuperscript{23} The three-level game theory substantiates this claim by demonstrating how public capacity increases the volume and frequency of news available to citizens. I derive two hypotheses to test the relationship between public capacity and global public opinion.

**H7:** The negative relationship between the Iraq War and favorable public opinion of the United States intensifies as public capacity increases.

**H8:** The positive relationship between the Obama Presidency and favorable public opinion of the United States intensifies as public capacity increases.

The first six hypotheses are tested in chapter four. The last two hypotheses are tested in chapter five.

On September 11, 2013 an editorial authored by the Russian President Vladimir Putin and addressed to the American people appeared in the *New York Times*. The goal of Putin’s article was to sway a foreign public’s opinion, in this case U.S. public opinion, against coercive intervention into the ongoing Syrian Civil War. From an International Relations (IR) perspective, the most intriguing aspect of Putin’s editorial is not the persuasiveness of his argument but rather the actors involved. President Putin’s editorial was a rare maneuver by a head of state to directly engage a foreign public. This unprecedented act is evidence of the emerging power of foreign publics, the strategic importance of global public opinion, and the viability of public diplomacy as an instrument of national power.

Although the importance of shaping global public opinion through public diplomacy has recently become more evident, the engagement of foreign publics is not new to international politics. In fact, states have exercised public diplomacy for many years. Efforts by the United States Government to engage foreign publics have ranged from covert propaganda campaigns orchestrated by the Central Intelligence Agency (CIA) to a multitude of overt public diplomacy programs such as foreign student exchanges, the establishment of American libraries, and Radio Free Europe directed by the former United States Information Agency (USIA).

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One goal of the USIA during the Cold War was to make evident the contrast in living standards between Communist Bloc and Western societies through radio and television programming. The USIA programs, while not misleading or untruthful, were carefully crafted productions. Today, the volume of news stories, movies, and documentaries that depict life in the United States, and are available via the Internet, exponentially exceeds the material produced by the USIA. No doubt the Internet material does not always portray the United States in a favorable light, but there are many advantages to a more open medium. The variety and quality of the material available attracts larger audiences and the material’s authenticity likely adds to its persuasive ability.

The strategic value in public diplomacy is fueled by the interdependent and interconnected nature of the international community. In today’s global economy, individual citizens have a greater incentive to be concerned with foreign affairs, and as previously discussed, a greater ability to be informed of global events. The renewed relevance of this dimension of foreign policy compels states to foster empathy and international public support for their actions.

The next step in this study is to assess what factors shape global public opinion and examine how public capacity influences those factors. To that end, this chapter accomplishes two goals. First, it reviews the evolution of public diplomacy as a means for shaping global public opinion. Second, it then replicates three statistical models: an interest model, a socialization model, and an influence model to establish a baseline of variables that affect global public opinion on American foreign policy.
The Evolution of Public Diplomacy

For over 100 years, states have sought opportunities to cultivate relationships with citizens of other nations. The first acts of public diplomacy were simple engagements between diplomats of one state and foreign influential citizens of another. Throughout the twentieth century, states increasingly formalized their public diplomacy efforts by dedicating manpower, appropriating funding, and establishing independent agencies to better convey their national interests to foreign publics. Since its modest beginnings, the nature, scope, and relevance of public diplomacy have steadily evolved. Current public diplomacy efforts comprise a host of cultural, medical, economic, and educational programs targeting multiple sectors of society. This widespread implementation of public diplomacy is an implicit recognition that foreign governments and foreign publics are independent, if related, international actors.

The work of three authors, Walter R. Roberts, Karen Hughes, and Nicholas J. Cull, offer a thorough description of the evolution of public diplomacy as an instrument of foreign policy. Walter Roberts traces the initial implementation of public diplomacy from the late nineteenth century through the late twentieth century. His focus is on U.S. public diplomacy, however, he discusses how various countries developed early concepts of public diplomacy, and how the World Wars acted as catalysts for the development of public diplomacy programs. Karen

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Hughes, a former U.S. Undersecretary of State for Public Diplomacy during the George W. Bush administration, extends Robert’s work by providing readers with an appreciation for the wide range of programs that currently fall under the purview of public diplomacy. Finally, Nicholas Cull, discusses how the growth of communications technology throughout the late twentieth and early twenty-first century has significantly influenced both the breadth and quality of U.S. public diplomacy programs. His research provides important insights into the growing potential of public diplomacy to shape both U.S. and foreign public opinion, and consequently, to affect international politics. Collectively, Roberts, Hughes, and Cull’s works provide a full picture of historic and current public diplomacy practices. What follows is an analysis and detailed description of the major contributions of each of these authors.

Robert’s 2007 study, “What is Public Diplomacy,” accomplishes two important tasks. First, it demonstrates that state actors have recognized the vital role of foreign publics in international politics for over 100 years. Second, it identifies some of the early and persistent obstacles that delayed the development of formal public diplomacy programs and perhaps contributed to a delay in more robust scholarly examination. These obstacles consist of prevailing international norms of the nineteenth century disapproving of diplomats engaging foreign publics; early stigmas that arose from confusing public diplomacy with Soviet and Nazi propaganda programs; to limited technological capabilities; and internal bureaucratic disputes within the U.S. government. Two of these obstacles—international norms against engaging foreign citizens and limited technological means—have diminished over time, while the

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remaining two obstacles—the false association between propaganda and public diplomacy and internal bureaucratic politics persist.

Hughes’s 2007 article, “Waging Peace: A New Paradigm for Public Diplomacy,” dispels the common notion that public diplomacy consists solely of radio broadcasts. Written during her tenure as Under Secretary for Public Diplomacy from 2005 to 2007, Hughes provides the reader with a more complete appreciation for the spectrum of activities that exist under the public diplomacy umbrella. Her discussion illustrates the facilitation of more “voices” into the realm of diplomacy. Hughes emphasizes that, “although traditional diplomacy was focused exclusively on elites, today’s diplomacy is increasingly focused on vulnerable segments of the population,” that is, minorities or developing nations.⁹ A general description of the topics covered by Hughes range from the decentralization of embassies, expansion of exchange programs, and the rebuilding of cultural and medical diplomacy, to new efforts tailored specifically to address female populations abroad.

Additionally, Hughes makes explicit three important strategic aspects of public diplomacy. First, she highlights the fact that governments can establish a relationship with a foreign public even when no relationship exists between the two governments—is one of the more important contributions of the piece.¹⁰ Valuable, too, is Hughes’s discussion of democracy as a catalyst for change in United States grand strategy. She states, “As more governments around the world become more open and democratic, increasingly those governments must respond to their publics.”¹¹ This observation effectively identifies foreign publics as key components in international politics. Finally, Hughes acknowledges that change in cyber

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technology is driving change in diplomacy.\textsuperscript{12} Her discussion of cyber technology is limited to the notion that as barriers to communication are diminished, foreign publics become increasingly accessible not only to the United States but to a myriad of other states and non-state actors. Hughes’s limited treatment of technology is augmented by Cull’s in-depth analysis of the Internet as a tool of public diplomacy.

Cull’s 2013 article, “The Long Road to Public Diplomacy 2.0: The Internet in U.S. Public Diplomacy,” supplements Hughes’s discussion by providing an updated account of U.S. public diplomacy. Cull focuses exclusively on how advancements in information technology have changed the nature of public diplomacy. Cull explains that the term “public diplomacy 2.0” (henceforth P.D. 2.0) represents a “new public diplomacy” that permits a greater emphasis on “exchange, dialogue (as opposed to monologue) and mutuality”.\textsuperscript{13} Cull claims that the current era of 2.0 is unique in three distinct ways. First, P.D. 2.0 facilitates the creation of relationships through social media. Second, P.D. 2.0 is fundamentally about horizontally arranged networks of exchange rather than the vertically arranged networks of distribution from which information cascaded downward in the 1.0 era. Third, P.D. 2.0 is dependent on user-generated content.

The most helpful and significant contribution is Cull’s categorization of various types of public diplomacy efforts. He divides public diplomacy into five categories: international broadcasting, cultural diplomacy, exchange diplomacy, advocacy, and listening. Cull singles out “listening” as the newest dimension of public diplomacy made possible by the Internet. He defines \textit{listening} as “engaging a foreign public by listening to it and channeling what is learned into policy formation;” \textit{advocacy} is defined as “engaging a foreign public by explaining one’s

\textsuperscript{12} Ibid, p. 18.
policies and/or point of view;” cultural diplomacy is defined as “engaging a foreign public by facilitating the export of one’s culture such as arts and languages;” and exchange diplomacy is defined as “engaging a foreign public by facilitating direct contact between one’s own people and a foreign population.”14 The Fulbright scholars program and the Peace Corps each fall within the realm of exchange diplomacy. Finally, Cull defines International Broadcasting as the act of “engaging a foreign public through the provision of news according to the accepted mores of international journalism.”15 The best-known examples of international broadcasting are the Voice of America radio and Radio Free Europe programs.

Policymakers traditionally viewed public diplomacy as a “means to ‘push’ messages.16 The significance of P.D. 2.0 is that it effectively diversifies public diplomacy by enhancing the ability to listen. Establishing dialogue, rather than simply advocating U.S. policy, is key to understanding the perspective and concerns of foreign publics. The proliferation of information technology—specifically the Internet permits foreign publics to provide feedback to the government, which may be used to shape future policy. Historically, advocacy has dominated the U.S. approach to public diplomacy; P.D. 2.0, however, holds promise that there will be greater attention to listening, culture, and exchange programs.17

Though limited in number, the empirical studies examining how public diplomacy affects international politics have yielded several valuable insights. These studies have analyzed a range of topics from the timing of public diplomacy implementation to the characteristics of the

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16 Ibid, p. 136.
various actors involved. Authors Benjamin E. Goldsmith, Yusaku Horiuchi, and Takashi Inoguchi begin with a very general analysis of factors that potentially influence a foreign public’s opinion of American Foreign Policy. These authors fit three separate statistical models: an interest model, a socialization model, and an influence model. The interest model focuses on security and economic ties with the U.S. The socialization model focuses on a country’s cultural values and historical experiences. Goldsmith et al.’s final model, the influence model, analyzes the effect of U.S. aid and press freedom in each country. The dependent variable for each model is the foreign public’s opinion of the United States’ war in Afghanistan.

Only three factors within each of these models are found to positively and significantly affect a country’s approval of the U.S.’s war in Afghanistan. Goldsmith et al. report that countries that are either members of NATO, or that experienced a recent terrorist incident, or countries that have a free press all tend to support the U.S.’s war in Afghanistan, on average. Additionally, one factor, the percent of a country’s population that is Muslim, negatively affects a foreign public’s approval of the U.S.’s war in Afghanistan.

In 2009, Goldsmith and Horiuchi revisit their analysis of foreign public opinion with a more specific focus on public diplomacy. In this second study, Goldsmith and Horiuchi use

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21 Ibid, p. 422-424.
visits by U.S. dignitaries as a proxy for public diplomacy. The authors argue that visits by U.S. dignitaries are a prime example of public diplomacy, which they define as “overt state-directed activity, which seeks to promote the national interest of a given state through informing and influencing foreign audiences.”

Goldsmith and Horouchi report two important findings from the 2009 study. First, the authors conclude that public diplomacy does affect a foreign public’s opinion of the U.S. This finding lends empirical support to the argument that public diplomacy does indeed bear influence on international politics. Second, they conclude that the effect of public diplomacy is not always positive. Goldsmith and Horiuchi find that the effect of public diplomacy is conditioned by characteristics of the actors involved—the government conducting public diplomacy and the foreign public that is the target of the public diplomacy. Goldsmith and Horiuchi’s key finding is that the impact of a government’s public diplomacy effort is dependent on whether the foreign public views the government and the government’s agents as “credible, controversial, or non-credible.” If the government is viewed as “noncredible,” public diplomacy efforts risk exacerbating negative attitudes. The public diplomacy literature provides valuable insight into the formulation of global public opinion and the ability of nation-states to shape global public opinion.

Research Design

I begin the quantitative analysis of what shapes global public opinion on American foreign policy with the statistical models developed by Benjamin E. Goldsmith, Yusaku

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Horiuchi, and Takashi Inoguchi in their 2005 study. The unit of analysis for this replication is the country-year. The dependent variable is the percent of the population with a favorable public opinion of the United States. The dependent variable is taken from the Pew Global Attitudes Project annual cross-national survey conducted from 2002-2015. The survey measures foreign publics’ opinions on the United States. The Pew poll comprises responses from 61 countries over a 14-year period. The number and specific countries surveyed vary from year to year. The 2004 survey represents the smallest sample; it has only seven countries. The 2014 survey represents the largest sample; it has observations from 42 countries. The following countries appear in the survey every year: France, Germany, Jordan, Russia, Turkey, and the United Kingdom. Multiple countries to include Uzbekistan, Angola, Mali, and Morocco appear only once in the survey. I removed all observations for the United States and the Palestinian Territory. There are a total of 328 observations in the data set.

Owing to the panel nature of the data I elect to use a random effects model throughout the study. In this case, the random effects model affords several advantages to the fixed effects model. First, there are three variables in the data set that are time-invariant (mutual defense pact with the United States, United States covert action, and Muslim population). The fixed effects model is incapable of estimating time-invariant factors. Conversely, the random effects model permits estimation of these variables. In contrast the random effects model assumes that the 61

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27 The Pew survey question states, “please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of the United States. The percent responding favorable is calculated by combining “very favorable” and “somewhat favorable” responses. The Pew survey may be found at http://www.pewglobal.org/database/indicator/1/.
28 I removed two countries from the survey; the United States and the Palestinian Territory.
29 The specification for all statistical models is located in Appendix B: Statistical Models.
countries in our sample are a drawing from a larger population of countries with a common mean value for the intercept. Any differences in countries that are not accounted for in the model are reflected in the individual country disturbance term, not the intercept. Therefore, the random effects model allows us to generalize the inferences beyond the sample used, that is across the international system.\footnote{This discussion of fixed versus random effects is drawn from Damodar N. Gujarati and Dawn C. Porter, \textit{Basic Econometrics}, (New York: McGraw-Hill Irwin, 2009), p. 591-607.}

It is important to emphasize that I alter Goldsmith et al.’s models in two ways. First, the dependent variable for each model in the 2005 study is a foreign public’s support for the United States’ war in Afghanistan.\footnote{See Benjamin E. Goldsmith, Yusaku Horiuchi, and Takashi Inoguchi. “American Foreign Policy and Global Opinion: Who Supported the War in Afghanistan?” \textit{Journal of Conflict Resolution}, Vol. 49 No. 3 (2005), p. 411.} The dependent variable in this study is more general; it is the percent of a foreign public’s population with a favorable public opinion of the United States. Second, Goldsmith et al.’s analysis is limited to a single year, 2001. I use an expanded dataset that covers the years 2002 through 2015. Finally, there are a total of 61 countries analyzed in my study compared to 59 countries in the earlier study.

Goldsmith et al.’s results inform my hypotheses. Only three factors within each of these models are found to positively and significantly affect a country’s approval of the U.S.’s war in Afghanistan. Goldsmith et al. report that countries that are either members of NATO, or that experienced a recent terrorist incident, or countries that have a free press all tend to support the U.S.’s war in Afghanistan, on average.\footnote{Ibid, p. 422-424.} Additionally, one factor, the percent of a country’s population that is Muslim, negatively affects a foreign public’s approval of the U.S.’s war in Afghanistan.\footnote{Ibid, p. 424.} These findings are derived with data from a single year, 2001. I replicate
Goldsmith et al.’s important study to determine whether or not their results, based on 2001 data, endure throughout the 2002-2015 period. The expanded data set, covering multiple years instead of a single year, should provide a more nuanced understanding of the factors that shape global public opinion. Following is an in-depth description of the data used to replicate Goldsmith et al.’s security, socialization, and influence models.

**Interest Model**

The interest model focuses on security and economic ties with the U.S. The logic of the interest model is that publics are familiar with “state-level material interests,” and the state’s “pursuit of power” in the international arena. The security model comprises six explanatory variables.

Two of the independent variables in the interest model concern whether a country has an alliance with the United States. Countries that are formal allies are expected to exhibit more favorable opinions of one another. These two variables, mutual defense pact with the United States (MuDefPac) and NATO membership (NATO), are dummy variables. They are coded 1 if the country had a mutual defense pact with the United States or was a member of NATO and 0 otherwise.

The third independent variable is the amount of military aid received from the United States (MilAid). Countries that receive higher amounts of military aid are expected to exhibit a more favorable opinion of the United States. The military aid variable is measured as percentage of a country’s gross domestic product.

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34 Ibid, p. 410
35 Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
The fourth independent variable is the degree of trade with the United States (USTrd). Higher levels of trade are assumed to have a positive effect on public opinion. Countries that rely on a significant amount of trade with the United States are expected to exhibit a more favorable opinion of the United States. Trade with the United States is measured by taking the sum of imports from and exports to the United States as a percentage of each country’s gross domestic product.

The fifth and sixth independent variables represent a conflict of interest with the United States. The fifth variable, highest militarized interstate dispute (MID), accounts for the highest hostility level MID (0 - 5) with the United States since 1990 (USMid). The sixth independent variable, U.S. covert intervention, is a dummy variable that is coded 1 if the United States was known to have conducted a covert intervention in the state and coded 0 otherwise. These variables capture any history of confrontation and are expected to diminish a foreign public’s opinion of the United States. Table 4.1 presents descriptive statistics for the interest model variables.

Table 4.1 Interest Model Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FavOpn</td>
<td>328</td>
<td>53.6372</td>
<td>1.0</td>
<td>94.0</td>
<td>21.5321</td>
</tr>
<tr>
<td>MuDefPac</td>
<td>328</td>
<td>0.4116</td>
<td>0.0</td>
<td>1.0</td>
<td>0.49287</td>
</tr>
<tr>
<td>NATO</td>
<td>328</td>
<td>0.27439</td>
<td>0.0</td>
<td>1.0</td>
<td>0.44689</td>
</tr>
<tr>
<td>MilAid</td>
<td>326</td>
<td>0.15829</td>
<td>0.0</td>
<td>8.00717</td>
<td>0.59189</td>
</tr>
<tr>
<td>USTrd</td>
<td>326</td>
<td>6.83600</td>
<td>0.44795</td>
<td>75.01406</td>
<td>9.66332</td>
</tr>
<tr>
<td>USMid</td>
<td>328</td>
<td>0.72866</td>
<td>0.0</td>
<td>4.0</td>
<td>1.45141</td>
</tr>
<tr>
<td>USCov</td>
<td>328</td>
<td>0.29573</td>
<td>0.0</td>
<td>1.0</td>
<td>0.45707</td>
</tr>
</tbody>
</table>
Only one variable in the interest model from Goldsmith et al.’s 2005 study, NATO membership, was found to have a significant effect on a foreign public’s opinion of the United States. This finding informs the first hypothesis:

**H1: Global public opinion of the U.S. is more favorable among countries that are NATO members.**

The first hypothesis is confirmed if the partial slope coefficient for NATO members (NATO) is significant and positive. The hypothesis is falsified if the partial slope coefficient for NATO members is negative and significant. Table 4.2 presents the results of the interest model.

The results of the interest model differ substantially from Goldsmith et al.’s 2005 study. Three variables in the interest model are found to have a statistically significant effect on global public opinion of the United States. First, from the random effects results we conclude that NATO membership (NATO) is significant at the 95% confidence level. Surprisingly, NATO membership has a negative effect on global public opinion of the United States. The partial slope coefficient for NATO membership is negative 12.12098. *Ceteris Paribus*, we expect NATO membership to decrease favorable public opinion of the United States by 12.1 percentage points, on average. This finding falsifies the first hypothesis.

Second, military aid (MilAid) also has a significant, and unexpected, negative effect on global public opinion of the United States. This finding suggests that the more military aid a country receives from the United States, the lower the country’s opinion of the United States. From the random effects results we conclude that military aid is significant at the 90% confidence level. The partial slope coefficient for military aid is negative 2.31869. *Ceteris Paribus*, we expect for every 1% of a country’s GDP that the United States contributes in
military aid to decrease favorable public opinion of the United States by 2.31869 percentage points on average.

Finally, a militarized interstate dispute (USMid) with the United States also has a significant and negative effect. This finding supports the notion that countries with a history of past conflict with the United States will exhibit a less favorable opinion of the United States. From the random effects results we conclude that history of a militarized interstate dispute with the United States is significant at the 99% confidence level. The partial slope coefficient for a militarized interstate dispute with the United States is negative 5.38747. *Ceteris Paribus,* we expect for each increase in the level of a militarized dispute to decrease favorable public opinion of the United States by 5.38747 percentage points on average.

The effect of the remaining variables in the interest model, mutual defense pact with the United States (MuDefPac), trade with the United States (USTrd), and covert action by the United States (USCov) were not statistically significant. As a whole, the interest model explains 25% of the variation in global public opinion of the United States ($R^2$ overall = 0.2502). Finally, the results of this model falsify the first hypothesis.
Table 4.2 Interest Model Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf.</th>
<th>Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>62.78757</td>
<td>3.16018</td>
<td>19.87</td>
<td>0.000</td>
<td>56.59374</td>
<td>68.98141</td>
</tr>
<tr>
<td>MuDefPac</td>
<td>3.23678</td>
<td>4.91458</td>
<td>0.66</td>
<td>0.510</td>
<td>-6.39563</td>
<td>12.86919</td>
</tr>
<tr>
<td>NATO</td>
<td>-12.12098</td>
<td>5.09919</td>
<td>2.38</td>
<td>0.017</td>
<td>-22.11521</td>
<td>-2.12676</td>
</tr>
<tr>
<td>MilAid</td>
<td>-2.31869</td>
<td>1.32815</td>
<td>-1.75</td>
<td>0.081</td>
<td>-4.921809</td>
<td>0.28443</td>
</tr>
<tr>
<td>USTrd</td>
<td>0.1357069</td>
<td>0.159071</td>
<td>0.85</td>
<td>0.394</td>
<td>-0.176066</td>
<td>0.44748</td>
</tr>
<tr>
<td>USMid</td>
<td>-5.38747</td>
<td>1.61723</td>
<td>-3.33</td>
<td>0.001</td>
<td>-8.55718</td>
<td>-2.21776</td>
</tr>
<tr>
<td>USCov</td>
<td>-1.97596</td>
<td>4.95832</td>
<td>-0.40</td>
<td>0.690</td>
<td>-11.69408</td>
<td>7.74216</td>
</tr>
<tr>
<td>Sigma u</td>
<td>15.21796</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sigma e</td>
<td>9.36244</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>0.72543</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 326, 61 groups
R² overall = 0.2502, within = 0.0219, between = 0.2359
Wald chi2 (6) = 24.46, Prob > chi2 = 0.0004

Socialization Model

The socialization model focuses on a country’s cultural values and historical experiences. The socialization model assumes that a country’s citizens share a collective perception of politics that is shaped by factors such as religion, regime type, and economic status. The socialization model comprises four explanatory variables. The variables are, number of past terrorist incidents, gross domestic product per capita (GDP), polity score, and percent of the population that is Muslim.\(^{36}\)

The first independent variable in the socialization model is the number of significant terrorist events that occurred annually within a country (TerEvt). The terrorist event variable reflects the fact that the U.S. has waged a global war on terrorism throughout the twenty-first century. The terrorist event variable is expected to positively affect a foreign public’s opinion of the United States. The logic behind this variable is that countries that recently experienced an act of terrorism will have more empathy for the United State’s global war on terrorism. The

\(^{36}\) Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
source for terrorist events is the National Counterterrorism Center’s “A Guide to Counterterrorism.” The guide provides an annual timeline of significant terrorist incidents. I list the total number of terrorist events that occurred each year.

The second independent variable is a country’s gross domestic product (GDP) per capita based on purchasing power parity. Goldsmith et al. note that affluence is correlated with post-materialism and a decreased emphasis on military security. Countries with higher levels of GDP per capita are expected to have lower opinions of military interventions. Since the United States was engaged in two wars, one in Afghanistan and another in Iraq, during this time period, GDP is expected to negatively affect a foreign public’s opinion of the United States.

The third independent variable is a country’s polity score (Polity). Polity measures a regime’s authority characteristics on a scale from -10 to +10. Higher scores represent more democratic characteristics. Democratic states are more likely to have empathy for one another. Countries with higher levels of democracy, that is a higher polity score, are expected to have more favorable opinions of the United States.

The fourth and final independent variable in the socialization model is the percent of a country’s population that is Muslim (MusPop). The Muslim population variable reflects the fact that America’s primary adversaries in the Global War on Terror, the Taliban regime and al-Qaeda, are advocates of Islam. Therefore, the variable Muslim population is expected to negatively affect a foreign public’s opinion of the United States. Table 4.3 presents descriptive statistics for the variables in the socialization model.

Table 4.3 Socialization Model Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FavOpn</td>
<td>328</td>
<td>53.6372</td>
<td>1.0</td>
<td>94.0</td>
<td>21.5321</td>
</tr>
<tr>
<td>TerEvt</td>
<td>328</td>
<td>0.33842</td>
<td>0.0</td>
<td>11.0</td>
<td>1.11349</td>
</tr>
<tr>
<td>GDP</td>
<td>327</td>
<td>19799.23</td>
<td>1154.863</td>
<td>95527.95</td>
<td>13988.14</td>
</tr>
<tr>
<td>Polity</td>
<td>326</td>
<td>5.96933</td>
<td>-9.0</td>
<td>10.0</td>
<td>5.02477</td>
</tr>
<tr>
<td>MusPop</td>
<td>328</td>
<td>27.92012</td>
<td>0.0</td>
<td>99.8</td>
<td>38.03908</td>
</tr>
</tbody>
</table>

Goldsmith et al.’s 2005 study found two variables in the socialization model, experience of a recent terrorist event and Muslim population, to have a significant effect on global public opinion of the United States. This finding informs the second and third hypotheses:

**H2: Global public opinion of the U.S. is more favorable among countries that experienced a recent terrorist incident.**

**H3: Global public opinion of the U.S. is less favorable among countries with large Muslim populations.**

The second hypothesis is confirmed if the partial slope coefficient for countries that experienced a recent terrorist incident is positive (TerEvt) and significant. The hypothesis is falsified if the partial slope coefficient for countries that experienced a recent terrorist incident (TerEvt) is negative and significant. The third hypothesis is confirmed if the partial slope coefficient for countries with large Muslim populations (MusPop) is negative and significant. The hypothesis is falsified if the partial slope coefficient for countries with large Muslim populations (MusPop) is positive and significant. Table 4.4 presents the results of the socialization model.

The results of the socialization model differ slightly from Goldsmith et al.’s 2005 study. Two variables are found to have a statistically significant effect on global public opinion of the United States during the 2002 – 2015 time period. First, from the socialization model we
conclude that gross domestic product (GDP) is significant at the 95% confidence level although
the coefficient is small. The partial slope coefficient for gross domestic product (GDP) is
negative 0.00025. *Ceteris Paribus*, we expect for every 1% increase in a country’s GDP to
decrease global public opinion of the United States by 0.00025 percentage points on average.
This finding supports the notion that more wealthy nations frown upon military intervention.

Next, the percent of a population that is Muslim is found to have a significant and
negative effect on global public opinion of the United States. From the socialization model we
conclude that Muslim population (MusPop) is significant at the 99% confidence level. The
partial slope coefficient for Muslim population (MusPop) is negative 0.21771. *Ceteris Paribus*,
we expect for every 1 percent increase in a country’s Muslim population to decrease global
public opinion of the United States by 0.21771 percentage points on average. This finding
confirms the third hypothesis.

The effects of the remaining variables in the socialization model are not statistically
significant. Finally, the socialization model improves the overall explanation of global public
opinion. Whereas the interest model explained 25% of the variation in global public opinion of
the United States, the socialization model explains 36% ($R^2$ overall = 0.3631). Finally, the
results of this model confirm the third hypothesis. The second hypothesis can be neither
confirmed nor falsified.
Table 4.4 Socialization Model Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>70.19472</td>
<td>4.16090</td>
<td>16.87</td>
<td>0.000</td>
<td>62.0395 - 78.34994</td>
</tr>
<tr>
<td>TerEvt</td>
<td>-0.43497</td>
<td>0.58150</td>
<td>-0.75</td>
<td>0.454</td>
<td>-1.57468 - 0.70475</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.00025</td>
<td>0.00013</td>
<td>-1.96</td>
<td>0.050</td>
<td>-0.00050 - 3.99e-07</td>
</tr>
<tr>
<td>Polity</td>
<td>-0.05175</td>
<td>0.32656</td>
<td>-0.16</td>
<td>0.874</td>
<td>-0.69179 - 0.58830</td>
</tr>
<tr>
<td>MusPop</td>
<td>-0.21771</td>
<td>0.06346</td>
<td>-3.43</td>
<td>0.001</td>
<td>-0.34208 - 0.09334</td>
</tr>
</tbody>
</table>

n = 325, groups 61
R² overall = 0.3631, within = 0.0000, between = 0.1969
Wald chi2 (4) = 15.08, Prob > chi2 = 0.0045

Influence Model

Goldsmith et al.’s final model, the influence model, assumes that states will attempt to “influence foreign public opinion to their advantage.”38 The influence model comprises two explanatory variables.39 The first variable in the influence model is the amount of economic aid a country receives from the United States (EconAid). Economic aid, and the threats to cut economic aid, may be used as carrots and sticks to influence recipient countries. Countries that receive high levels of economic aid are expected to exhibit more favorable opinions of donor states. The economic aid variable is measured as percentage of a country’s gross domestic product.

The second and final variable in the influence model is press freedom (FrePrs). The press freedom variable assumes that countries with fewer media constraints will have greater exposure to U.S. interpretations of international events, and subsequently, greater empathy for U.S. foreign

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39 Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
policy. The press freedom variable is expected to positively affect a foreign public’s opinion of the United States. Table 4.5 presents descriptive statistics for the influence model variables.

Table 4.5 Influence Model Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>FavOpn</td>
<td>328</td>
<td>53.6372</td>
<td>1.0</td>
<td>94.0</td>
<td>21.5321</td>
</tr>
<tr>
<td>EconAid</td>
<td>326</td>
<td>0.37221</td>
<td>-0.00001</td>
<td>13.3864</td>
<td>1.07208</td>
</tr>
<tr>
<td>FrePrs</td>
<td>328</td>
<td>55.41768</td>
<td>13.0</td>
<td>89.0</td>
<td>20.38376</td>
</tr>
</tbody>
</table>

Only one variable in the influence model from Goldsmith et al.’s 2005 study, free press, was found to have a significant effect on a foreign public’s opinion of the United States. This finding informs the fourth hypotheses:

**H4**: Global public opinion of the U.S. is more favorable among countries that have a free press.

The fourth hypothesis is confirmed if the partial slope coefficient for countries that have a free press (FrePrs) is positive and significant. The hypothesis is falsified if the partial slope coefficient countries that have a free press (FrePrs) is negative and significant. Table 4.6 presents the results of the influence model.

Neither variable in the influence model is statistically significant. Relatedly, the influence model explains only 8% of the variation in global public opinion of the United States (R² overall = 0.0896). The fourth hypothesis is neither confirmed nor falsified.
Like Goldsmith et al. this study finds that NATO membership and Muslim population have a significant effect on global public opinion of the United States. Interestingly, NATO membership, however, was found to have a negative effect throughout the 2002 – 2015 time period. Additionally, this study finds that receiving military aid from the United States, involvement in a MID against the United States, and GDP all had significant and negative effects on global public opinion of the United States. The extent a country has a free press did not have a significant effect on global public opinion. Finally, of all three models, the socialization model has the most explanatory power.

**Combined Model**

Examining the effects of three separate models is useful for some analytic purposes. Policymakers, however, do not have the luxury of considering the effects of their actions in isolation. They need to see how all factors work together, how variables in separate models may complement or detract from one another.

Next I extend Goldsmith et al.’s study by combining all three models (security, socialization, and influence). The combined model presents a more accurate and policymaker-
friendly picture of what factors shape global public opinion on the United States. Table 4.7 presents the results of the combined model.40

Table 4.7 Combined Model Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>74.56234</td>
<td>7.42156</td>
<td>10.05</td>
<td>0.000</td>
<td>60.01635 to 89.10833</td>
</tr>
<tr>
<td>MuDefPac</td>
<td>-3.25826</td>
<td>5.47749</td>
<td>-0.59</td>
<td>0.552</td>
<td>-13.9940 to 7.47742</td>
</tr>
<tr>
<td>NATO</td>
<td>-10.61011</td>
<td>5.32872</td>
<td>-1.99</td>
<td>0.046</td>
<td>-21.0542 to -0.16602</td>
</tr>
<tr>
<td>MilAid</td>
<td>-2.92822</td>
<td>2.27389</td>
<td>-1.29</td>
<td>0.198</td>
<td>-7.38498 to 1.52853</td>
</tr>
<tr>
<td>USTrd</td>
<td>0.05619</td>
<td>0.15889</td>
<td>0.35</td>
<td>0.724</td>
<td>-0.25522 to 0.37670</td>
</tr>
<tr>
<td>USMid</td>
<td>-4.63021</td>
<td>1.62454</td>
<td>-2.85</td>
<td>0.004</td>
<td>-7.81426 to -1.46171</td>
</tr>
<tr>
<td>USCov</td>
<td>-3.31988</td>
<td>5.04539</td>
<td>-0.66</td>
<td>0.511</td>
<td>-13.2087 to 6.56891</td>
</tr>
<tr>
<td>TerEvt</td>
<td>-0.17158</td>
<td>0.58775</td>
<td>-0.29</td>
<td>0.770</td>
<td>-1.32356 to 0.98040</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.00013</td>
<td>0.00013</td>
<td>-0.96</td>
<td>0.338</td>
<td>-0.00040 to 0.00014</td>
</tr>
<tr>
<td>Polity</td>
<td>0.17835</td>
<td>0.36239</td>
<td>0.49</td>
<td>0.623</td>
<td>-0.53192 to 0.88861</td>
</tr>
<tr>
<td>MusPop</td>
<td>-0.20628</td>
<td>0.06834</td>
<td>-3.02</td>
<td>0.003</td>
<td>-0.34024 to -0.07233</td>
</tr>
<tr>
<td>EconAid</td>
<td>0.56663</td>
<td>1.29617</td>
<td>0.44</td>
<td>0.662</td>
<td>-1.97382 to 3.10707</td>
</tr>
<tr>
<td>FrePrs</td>
<td>-0.04531</td>
<td>0.11374</td>
<td>-0.40</td>
<td>0.690</td>
<td>-0.26824 to 0.17761</td>
</tr>
</tbody>
</table>

Sigma u | 14.69092 |
Sigma e | 9.35110 |
Rho | 0.71166 |

n = 324, groups 61
R² overall = 0.4331, within = 0.0198, between = 0.3582
Wald chi² (12) = 37.01, Prob > chi² = 0.0002

Three of the twelve variables in the combined model have a significant effect on global public opinion. These variables are NATO membership (NATO), militarized interstate dispute with the United States (USMid), and Muslim population (MusPop). First, from the combined model results we conclude that NATO membership (NATO) is significant at the 95% confidence level. The partial slope coefficient for NATO membership (NATO) is negative 10.61011. The estimated effect is slightly reduced from negative 12.12098 in the interest model to -10.1 percentage points in the combined model. Ceteris Paribus, we expect NATO membership to

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40 Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
decrease favorable public opinion of the United States by 10.61011 percentage points on average. The estimated effect of NATO membership in the combined model is slightly reduced from the estimated effect of negative 12.12098 in the interest model.

Second, the estimated effect of the militarized interstate dispute (USMid) variable also remains significant and negative in the combined model. From the combined model results we conclude that escalation of a militarized interstate dispute with the United States is significant at the 99% confidence level. The partial slope coefficient for military interstate dispute (USMid) is negative 4.63021. *Ceteris Paribus*, we expect an increase in each level of MID to decrease favorable public opinion of the United States by 4.63021 percentage points on average. The estimated effect of the militarized interstate dispute variable is slightly reduced from the estimated effect of negative 5.38747 in the interest model.

Third, the percent of a population that is Muslim is found to have a significant and negative effect on global public opinion of the United States. From the combined model results we conclude that Muslim population (MusPop) is significant at the 99% confidence level. The partial slope coefficient for Muslim population (MusPop) is negative 0.20628. *Ceteris Paribus*, we expect for every one percent increase in a country’s Muslim population of a population to decrease public opinion of the United States by 0.20628 percentage points on average. The estimated effect of the Muslim population variable remains relatively unchanged from the influence model to the combined model.

Finally, it is important to note that two variables were significant in the independent models, military aid and GDP, but were not statistically significant in the combined model. The combined model explains 43% of the variation in global public opinion of the United States ($R^2$ overall = 0.4331).
The Iraq War and the Obama Presidency

The combined model offers a more accurate picture of global public opinion during the 2002 – 2015 timeframe than the independent models. Furthermore, the combined model provides a sounds baseline of factors that affect global public opinion. The results of the combined model, however, remain unsatisfying. Particularly, the negative effect of the NATO variable is puzzling. This puzzle suggests that we must look for other important events during this period that may have influenced foreign opinions on American foreign policy.

The 2002 – 2015 period was a volatile time in American foreign policy. Two events stand out. First, America’s controversial decision to invade Iraq (2003) and the ensuing Iraq war (2003 – 2011) is an event that received global coverage. Unlike the U.S. war in Afghanistan, the invasion of Iraq was based on questionable logic and supported by marginal evidence that was eventually proven to be unfounded. The United States’ decision to invade Iraq drew much dissent worldwide and especially much criticism from other NATO countries. The invasion of Iraq represented a willingness by the United States to take unprecedented unilateral action with its military. More importantly, the Bush administration’s unfounded accusations that underpinned the invasion harmed U.S. credibility abroad. In contrast, the United States’ invasion of Afghanistan in 2001 was a NATO led mission that was widely supported by NATO members. The Iraq War variable represents a period when U.S. credibility was diminished. For these reasons, I add an Iraq war (IraqWar) variable to the model. I code the years of the Iraq war, 2003 – 2011, as 1 and all other years 0.

The second event that must be considered during this period is the election of President Barack Obama. President Obama’s election (2008) and subsequent two terms in office (2009 – 2016) were historic on many grounds. President Obama was the first African-American U.S.
president and the first U.S. president with a Muslim heritage. More importantly for this study, the election of President Obama represented a shift towards a more internationalist approach to American foreign policy. As a U.S. senator, President Obama had voted against the war in Iraq. As a presidential candidate one of his central campaign promises was to end the war in Iraq. If the Iraq war damaged America’s reputation abroad then the election of Barack Obama must be viewed as lifting America’s international stature. The Obama presidency (ObamaPres) variable represents a period of elevated U.S. credibility. For these reasons, I add a President Obama (ObamaPres) variable to the model. I code the years of the Obama presidency, 2009 – 2016, as 1 and all other years 0. Table 4.8 presents descriptive statistics for the Iraq war and President Obama variables.

Table 4.8 Iraq War and Obama Presidency Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>IraqWar</td>
<td>328</td>
<td>0.49085</td>
<td>0.0</td>
<td>1.0</td>
<td>0.50068</td>
</tr>
<tr>
<td>ObamaPres</td>
<td>328</td>
<td>0.59756</td>
<td>0.0</td>
<td>1.0</td>
<td>0.49114</td>
</tr>
</tbody>
</table>

**Full Model**

I label the combined model with the Iraq war (IraqWar) and Obama presidency (ObamaPres) variables the *full model*. I test two hypotheses with the full model. First, I expect the Iraq war (IraqWar) variable to negatively affect global public opinion on the United States. Second, I expect the Obama presidency (ObamaPres) variable to positively affect global public opinion on the United States.

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41 Appendix A provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
H5: Global public opinion of the United States is less favorable during the Iraq War.

H6: Global public opinion of the U.S. is more favorable during the presidency of Barack Obama.

The fifth hypothesis is confirmed if the partial slope coefficient for the Iraq war (IraqWar) is negative and significant. The hypothesis is falsified if the partial slope coefficient for the Iraq war (IraqWar) is positive and significant. The sixth hypothesis is confirmed if the partial slope coefficient for the presidency of Barack Obama (ObamaPres) is positive and significant. The hypothesis is falsified if the partial slope coefficient for the presidency of Barack Obama (ObamaPres) is negative and significant. Table 4.9 presents the results of the full model.

Nine of the fourteen variables in the full model have a significant effect on global public opinion. Only three of the variables, the Obama presidency (ObamaPres), trade with the United States (USTrd), and the level of press freedom (FrePrs) have a positive and significant effect. Six of the variables, the Iraq war (IraqWar), NATO membership (NATO), militarized interstate dispute with the United States (USMid), GDP, polity score (Polity), and Muslim population (MusPop), have a significant and negative effect on global public opinion on the United States.

First, that the Iraq war has a significant and negative effect on global public opinion of the United States. From the results of the full model we conclude the Iraq war variable is significant at the 95% confidence level. The partial slope coefficient for the Iraq war is negative 2.31668. Ceteris Paribus, we expect the Iraq War to decrease favorable public opinion of the United States by 2.31668 percentage points on average. This finding confirms the fifth hypothesis.
Second, the Obama presidency has a significant and positive effect on global public opinion of the United States. From the results of the full model we conclude the Obama presidency variable is significant at the 99% confidence level. The partial slope coefficient for Obama presidency is 10.044. Ceteris paribus, we expect the Obama presidency to increase favorable public opinion of the United States by 10.044 percentage points on average. This finding confirms the sixth hypothesis on average.

Third, NATO membership continues to have a significant and negative effect. From the results of the full model we conclude the NATO variable is significant at the 90% confidence level. The partial slope coefficient for NATO membership is negative 8.9190. Ceteris paribus, we expect NATO membership to decrease favorable public opinion of the United States by 8.9190 percentage points on average.

Fourth, trade with the United States has a significant and positive effect on global public opinion of the United States. From the full model we conclude that trade with the United States is significant at the 90% confidence level. The partial slope coefficient for trade with the United States is 0.29153. Ceteris paribus, we expect every 1% increase in trade with the United States to increase global public opinion by 0.29153 percentage points on average.

Fifth, a militarized interstate dispute with the United States has a significant and negative effect. From the results of the full model we conclude that a militarized interstate dispute with the United States is significant at the 95% confidence level. The partial slope coefficient for a militarized dispute with the United States is negative 3.69104. Ceteris paribus, we expect every increase in the level of militarized interstate dispute with the United States to decrease global public opinion on the United States by 3.69104 percentage points on average.
Sixth, GDP has a significant and negative effect on global public opinion of the United States. From the results of the full model we conclude that GDP is significant at the 99% confidence level. The partial slope coefficient for GDP is 0.00040. *Ceteris paribus*, we expect every 1% increase in a country’s GDP to decrease global public opinion of the United States by 0.00040 percentage points on average.

Seventh, polity score has a significant and negative effect. From the full model results we conclude that polity is significant at the 95% confidence level. The partial slope coefficient for polity is negative 0.84630. *Ceteris paribus*, we expect a one-point increase in polity score to decrease global public opinion of the United States by 0.84630 percentage points on average.

Eighth, Muslim population has a negative and significant effect on global public opinion of the United States. From the results of the full model we conclude that Muslim population is significant at the 99% confidence level. The partial slope coefficient for Muslim population is negative 0.18317. *Ceteris paribus*, we expect a 1% increase in a country’s Muslim population to decrease global public opinion of the United States by 0.18317 percentage points on average.

Finally, a free press has a positive and significant effect on global public opinion of the United States. From the results of the full model we conclude that free press is significant at the 99% confidence level. The partial slope coefficient for free press is 0.42587. *Ceteris paribus*, we expect a one-point increase in free press to improve global public opinion on the United States by 0.42587 percentage points on average. The *full model* explains 45% of the variation in global public opinion of the United States ($R^2$ overall = 0.4522). These findings confirm both the fifth and the sixth hypothesis.
Table 4.9 Full Model Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>50.87191</td>
<td>7.41316</td>
<td>6.86</td>
<td>0.000</td>
<td>36.34238 – 65.40145</td>
</tr>
<tr>
<td>MuDefPac</td>
<td>-3.77063</td>
<td>5.22633</td>
<td>-0.72</td>
<td>0.471</td>
<td>-14.0141 – 6.47279</td>
</tr>
<tr>
<td>NATO</td>
<td>-8.9190</td>
<td>4.95753</td>
<td>-1.80</td>
<td>0.072</td>
<td>-18.6356 – 0.79758</td>
</tr>
<tr>
<td>MilAid</td>
<td>-0.30388</td>
<td>2.03163</td>
<td>-0.15</td>
<td>0.881</td>
<td>-14.0141 – 6.47279</td>
</tr>
<tr>
<td>USTrd</td>
<td>0.29153</td>
<td>0.14989</td>
<td>1.94</td>
<td>0.052</td>
<td>-0.00225 – 0.58532</td>
</tr>
<tr>
<td>NATO</td>
<td>-8.9190</td>
<td>4.95753</td>
<td>-1.80</td>
<td>0.072</td>
<td>-18.6356 – 0.79758</td>
</tr>
<tr>
<td>USMid</td>
<td>-3.69104</td>
<td>1.49757</td>
<td>-2.46</td>
<td>0.014</td>
<td>-6.62623 – 0.75585</td>
</tr>
<tr>
<td>USCov</td>
<td>-2.28747</td>
<td>4.8213</td>
<td>-0.47</td>
<td>0.635</td>
<td>-11.73705 – 7.16211</td>
</tr>
<tr>
<td>TerEvt</td>
<td>0.08168</td>
<td>0.51412</td>
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<td>-0.92598 – 1.08933</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.00040</td>
<td>0.00013</td>
<td>-3.08</td>
<td>0.002</td>
<td>-0.00066 – 0.00015</td>
</tr>
<tr>
<td>Polity</td>
<td>-0.84630</td>
<td>0.34021</td>
<td>-2.49</td>
<td>0.013</td>
<td>-1.51311 – 0.17950</td>
</tr>
<tr>
<td>MusPop</td>
<td>-0.18317</td>
<td>0.06542</td>
<td>-2.80</td>
<td>0.005</td>
<td>-0.31139 – 0.05495</td>
</tr>
<tr>
<td>EconAid</td>
<td>-0.21049</td>
<td>1.15843</td>
<td>-0.18</td>
<td>0.856</td>
<td>-2.48100 – 2.06000</td>
</tr>
<tr>
<td>FrePrs</td>
<td>0.42587</td>
<td>0.11357</td>
<td>3.75</td>
<td>0.000</td>
<td>0.20328 – 0.64845</td>
</tr>
<tr>
<td>IraqWar</td>
<td>-2.31668</td>
<td>1.1497</td>
<td>-2.02</td>
<td>0.044</td>
<td>-4.57005 – 0.06331</td>
</tr>
<tr>
<td>ObamaPres</td>
<td>10.044</td>
<td>1.27113</td>
<td>7.90</td>
<td>0.000</td>
<td>7.55263 – 12.53538</td>
</tr>
<tr>
<td>Sigma u</td>
<td>14.14268</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sigma e</td>
<td>8.00614</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>0.75731</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 324, groups 61
R² overall = 0.4522, within = 0.2874, between = 0.3508
Wald chi2 (14) = 133.78, Prob > chi2 = 0.0000

Conclusion

This chapter accomplishes several important tasks. First, it shows how public diplomacy is evolving with the spread of cyber technology. Second, it presents an analysis of the factors that shape global public opinion. The analysis builds on Goldsmith et al.’s findings by using data drawn from a fourteen-year period instead of a single year. Only one variable, the percent of a population that is Muslim, had a persistent effect on global public opinion in both data sets. The Muslim population variable remained significant and negative with a relatively small coefficient in all models. This finding confirmed the third hypothesis: global public opinion of the United States is less favorable among countries with large Muslim populations. The effect of NATO membership was also consistently significant. Interestingly, NATO membership, however, was found to have a negative effect throughout the 2002 – 2015 time period. This
finding falsified the first hypothesis: *global public opinion of the United States is more favorable among countries that are NATO members.*

Three variables, military aid from the United States, involvement in a militarized interstate dispute (MID) against the United States, and GDP had significant and negative effects on global public opinion of the United States in the 2002 – 2015 study but did not have a significant effect in Goldsmith *et al.*’s study. Two variables had a significant effect in the Goldsmith *et al.* study, a recent terrorist incident and the extent a country has a free press, but did not have a significant effect in the current 2002-2015 study. These findings neither confirmed nor falsified the second hypothesis: *global public opinion of the United States is more favorable among countries that experienced a recent terrorist incident,* nor the fourth hypothesis: *global public opinion of the United States is more favorable among countries that have a free press.* Finally, of all three models, the socialization model exhibited the most explanatory power.

Third, this chapter presents a more policymaker friendly model of global public opinion that combines all twelve variables. When combined only three of the twelve variables have a significant effect on global public opinion. NATO membership, involvement in a MID against the United States, and Muslim population were all significant and negative. These findings offer important clues about crafting effective foreign policy.

Fourth, this chapter introduces two additional variables critical to explaining global public opinion of the United States during the 2002 – 2015 period, the Iraq war and the Obama presidency variables. The effect of both of these variables was significant. The effect of the Iraq war variable on global public opinion was negative, and the effect of the Obama presidency variable was positive. These findings confirmed the fifth hypothesis: *global public opinion of the United States is less favorable during the Iraq War,* and the sixth hypothesis: *global public opinion of the United States is more favorable during the Obama presidency.*
opinion of the United States is more favorable during the presidency of Barack Obama. The results of this analysis improve our understanding of the factors that shape global public opinion and set the stage for analyzing the research question, how does an increase in public capacity affect global public opinion?
CHAPTER FIVE
CHANGING THE GAME: HOW PUBLIC CAPACITY SHAPES GLOBAL PUBLIC OPINION AND WHY WE SHOULD CARE

The spread of cyber technology has diminished international barriers and intensified the socialization of publics around the world. This phenomenon permits citizens to gain exposure to a greater variety of communities and cultures. It permits individuals across the globe to become more aware of the differences in their lives and the lives of others. Citizens of developed nations can better understand the plight of those in undeveloped regions. Publics residing under repressive regimes can contemplate and measure their quality of life in a new light. Tolerance for a lack of civil liberties, the excessive use of force at home and abroad, or limited economic opportunity is diminished by the knowledge of greater freedom, justice, and prosperity enjoyed by others. Individuals who find their current regime—its foreign and domestic policies, and the quality of life it provides—unsatisfactory can be expected to advocate for change.

More importantly, they have the technological means to affect change. The public’s improved awareness and ability to frame and drive narratives about international events is an increasingly important factor in foreign policy calculations. In this new era, marked by diminished state autonomy and increased reverberation, global public opinion matters more than ever. This chapter examines the link between cyber technology and the factors that shape global
public opinion, to shed light on the research question, *how does an increase in public capacity affect global public opinion?*

*Open Versus Closed Media Markets*

If information is the “key market commodity” in foreign policy, then it is important to understand how that commodity is produced, supplied, traded, and consumed.¹ No longer is a measure of press freedom adequate for determining the public’s ability to access independent information and political news. In the Global Information Age, a country’s informational infrastructure determines these traits. Broadly, there are two infrastructural models: open and closed media markets. The two models have vastly different processes for determining what information is selected to be newsworthy and how that information is framed and disseminated. These models illuminate how an increase in public capacity influences global public opinion.

On one end of the spectrum are closed media markets. In closed media markets, reporters or editors select what information is newsworthy. This filtered information then becomes available to the public.² Closed media markets, or broadcast media, emphasize the *vertical flow* of a *single frame* cascading down from elites to the public. Broadcast media, represented by traditional newspaper, radio, and television outlets exemplify closed media markets.

On the other end of the spectrum are open media markets. In open media markets, individual citizens enjoy the freedom to customize and produce their own news. The important

distinction is that individual citizens, not reporters or editors, determine what events are newsworthy. Open media markets emphasize the horizontal flow of information among peers, or non-elites, and exposure to multiple and alternative frames, or interpretations, of an event. Social media, such as Twitter and Facebook, exemplify open media markets.

An increase in public capacity represents a shift from a closed media market toward an open media market. Public capacity opens up the horizontal flow of information among citizens. There are important political implications that accompany the transition from a closed to an open media market. One important implication is that closed media markets, or broadcast media, are more susceptible to centralized control and the top down dissemination of the news. In contrast, open media markets are much less susceptible to centralized control due to the relative low cost of social media platforms.\(^3\)

Public Capacity as a Latent Variable

The comparison of open and closed media markets outlines how public capacity can shape global public opinion. First, it diminishes state autonomy by reducing reliance on the vertical flow of information cascading down from government elites through the national media. Instead, cyber technology permits citizens to access a multitude of alternative news outlets, and correspondingly, a multitude of alternative news reports and interpretations. This extension of media outlets can range from foreign broadcast news sources to the social media posts of individuals across the globe.

Second, a rise in public capacity facilitates reverberation. Cyber technology enables citizens to repackage stories as blogs, tweets, videos, emails, or calls, and share those stories over

and over again. When stories, such as Mohamed Bouazizi’s self-immolation, the unintended bombing of the Doctors Without Borders hospital, or the election of President Barack Obama, reverberate within and across communities they subsequently intensify global public opinion. Repeated exposure to a story allows individuals to update and refine their beliefs by reinforcing, or in some cases negating, a previously held opinion.

I define public capacity as the extent a country’s citizens are able to access, produce, store, and exchange information, build awareness of political events, and collaborate and coordinate action, locally and globally. Public capacity is not observable; it is a latent variable. I measure public capacity by combining three metrics: the percentage of a country’s population that use the Internet, the percentage of a country’s population that has a mobile cellular subscription, and a country’s adult literacy rate. Mobile cell phones and the Internet capture two primary means of communication, voice and data. Additionally, the combination of the Internet and mobile cellular technology has proven exceptionally potent in the diffusion of power. The ability to transmit data (pictures, sound, text, and videos) via mobile phones is the foundation for the emergence of many social media platforms. Finally, the third metric I use to construct a measure for public capacity is adult literacy rate. Adult literacy rate reflects more than the degree citizens can read and write. It also reflects numeracy, the ability to make simple arithmetic calculations. More broadly, adult literacy rate is a measure of one’s overall educational attainment, and relatedly, one’s ability to comprehend and apply politically relevant information.4

4 This description of literacy is informed by the World Bank Indicators, Adult literacy rate, population 15+ years, both sexes (%), “Details” tab. Appendix C comprises full descriptions of all variables and sources.
I use factor analysis to combine these metrics and derive a public capacity score for each country-year. The countries represented in this data set have public capacity scores that range from -2.39 to 1.28. Table 5.1 presents descriptive statistics for the public capacity variable.

Table 5.1 Public Capacity Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Observations</th>
<th>Mean</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Std. Dev.</th>
</tr>
</thead>
<tbody>
<tr>
<td>PubCap</td>
<td>327</td>
<td>-3.35e-10</td>
<td>-2.385693</td>
<td>1.27526</td>
<td>.8581497</td>
</tr>
</tbody>
</table>

On the lower end of the public capacity range is Mali-2007 with a public capacity score of -2.3857. In 2007 it is estimated that 20% of Mali’s population had a mobile cellular subscription, less than 1% of the population used the Internet, and only 27% of the adult population was literate. Other countries on the lower end of the public capacity range include Pakistan-2002 with a score of -2.1170 and Ivory Coast-2002 with a score of -2.1023. In 2002 it is estimated that only 1.13% of Pakistan’s population had a mobile cellular subscription, 2.58% used the Internet, and only 46.8% of the adult population was literate. In Ivory Coast–2002 it is estimated that 6.16% of the population had a mobile cellular subscription, 0.5% of the population used the Internet, and only 47.45% of the adult population was literate.

The middle of the public capacity range comprises countries like Argentina–2007 with a score of -0.0055 and Turkey–2010 with a score of 0.0048. In 2007 it is estimated that 102% of Argentina’s population had a mobile cellular subscription. This number implies that mobile cellular phones were so prevalent that some citizens had more than one subscription. Additionally, Argentina’s adult literacy rate during 2007 was 97.58%. Despite the high number
of mobile cellular subscriptions and adult literacy rate, it is estimated that only 25.95% of Argentina’s population used the Internet in 2007. In our second example of a mid range public capacity score, Turkey – 2010, it was estimated that 85.63% of the population had a mobile cellular subscription, 39.82% of the population used the Internet, and 92.66% of the adult population was literate.

Finally, on the high end of the range is Japan – 2015 with a public capacity score of 1.28. In 2015, it is estimated that 126.54% of Japan’s population had a mobile cellular subscription. Again, this implies that many citizens had more than one mobile subscription. Furthermore 91% of Japan’s population was estimated to use the Internet, and 99% of Japan’s adult population was literate. Other countries on the higher end of the public capacity range include the United Kingdom - 2015 with a score of 1.27 and Australia – 2015 with a score of 1.21. In 2015 it is estimated that 124.13% of the United Kingdom’s population had a mobile cellular subscription, 92% used the Internet, and 99% of the adult population was literate. In Australia – 2015 it is estimated that 132% of the population subscribed to a mobile cellular service, 84.6% of the population used the Internet, and 99% of the adult population was literate.

Research Design

After establishing what factors shape public opinion in chapter four, it is possible to test the extent public capacity alters these factors. I return to the full model derived in the previous chapter to examine the research question, how does an increase in public capacity affect global public opinion. I derive two hypotheses. First, I expect public capacity to intensify the negative effect of the Iraq war variable on global public opinion of the United States. Second, I expect
public capacity to intensify the positive effect of the President Obama variable of public opinion on the United States.

**H7: An increase in public capacity intensifies the negative relationship between the Iraq War and favorable global public opinion of the United States.**

**H8: An increase in public capacity intensifies the positive relationship between the Obama Presidency and favorable global public opinion of the United States.**

The seventh hypothesis is confirmed if the partial slope coefficient for the Iraq war – public capacity interaction term (IraqWar*PubCap) is negative and significant. The hypothesis is falsified if the partial slope coefficient for the Iraq war – public capacity interaction term (IraqWar*PubCap) is positive and significant. The eighth hypothesis is confirmed if the partial slope coefficient for the Obama presidency – public capacity interaction term (ObamaPres*PubCap) is positive and significant. The hypothesis is falsified if the partial slope coefficient for the Obama presidency – public capacity interaction term (ObamaPres*PubCap) is negative and significant.

**Public Capacity as an Independent Variable**

Before testing my hypotheses, I first run a full model with public capacity as an independent variable. This model allows us to assess public capacity’s independent effect on global public opinion. Table 5.2 presents the results of the full model with public capacity as an independent variable.

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5 Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
Seven of the fifteen variables in the full model with public capacity as an independent variable have a significant effect on global public opinion. First, the primary variable of interest, public capacity, has a significant and negative effect. From the results of the full model with public capacity as an independent variable we conclude that public capacity is significant at the 99% confidence level. The partial slope coefficient for public capacity is negative 9.67680. 

*Ceteris paribus*, we expect a one-unit increase in public capacity to decrease favorable public opinion of the United States by 9.7 percentage points on average. Additionally the following five variables also had a significant and negative effect on favorable public opinion of the United States: militarized interstate dispute with the United States, polity score, Muslim population, and Iraq war. Two variables in the model had a significant and positive effect: free press, and Obama presidency. The full model with public capacity as an independent variable explains 55% of the variation in global public opinion of the United States ($R^2$ overall $= 0.5468$). The interesting finding in this model is the independent significant effect of public capacity on global public opinion of the United States.
Table 5.2 Full Model with Public Capacity as an Independent Variable

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>45.74666</td>
<td>7.18918</td>
<td>6.36</td>
<td>0.000</td>
<td>31.65613 - 59.83718</td>
</tr>
<tr>
<td>PubCap</td>
<td>-9.67680</td>
<td>1.75068</td>
<td>-5.53</td>
<td>0.000</td>
<td>-13.1081 - -6.24554</td>
</tr>
<tr>
<td>MuDefPac</td>
<td>-3.93947</td>
<td>5.02878</td>
<td>-0.78</td>
<td>0.433</td>
<td>-13.7957 - 5.916764</td>
</tr>
<tr>
<td>NATO</td>
<td>-4.80616</td>
<td>4.81793</td>
<td>-1.00</td>
<td>0.318</td>
<td>-14.2491 - 4.636816</td>
</tr>
<tr>
<td>MilAid</td>
<td>-0.04836</td>
<td>1.94463</td>
<td>-0.02</td>
<td>0.980</td>
<td>-3.8598 - 3.763044</td>
</tr>
<tr>
<td>USTrd</td>
<td>0.19672</td>
<td>0.14492</td>
<td>1.36</td>
<td>0.175</td>
<td>-0.08732 - 0.480745</td>
</tr>
<tr>
<td>USMid</td>
<td>-3.40112</td>
<td>1.43719</td>
<td>-2.37</td>
<td>0.018</td>
<td>-6.21796 - -0.58428</td>
</tr>
<tr>
<td>USCov</td>
<td>-2.30254</td>
<td>4.63819</td>
<td>-0.50</td>
<td>0.620</td>
<td>-11.3932 - 6.78814</td>
</tr>
<tr>
<td>TerEvt</td>
<td>-0.37121</td>
<td>0.49810</td>
<td>-0.75</td>
<td>0.456</td>
<td>-1.34746 - 0.60505</td>
</tr>
<tr>
<td>GDP</td>
<td>-4.72e-06</td>
<td>0.00015</td>
<td>-0.03</td>
<td>0.974</td>
<td>-0.00029 - 0.00028</td>
</tr>
<tr>
<td>Polity</td>
<td>-0.58293</td>
<td>0.32920</td>
<td>-1.77</td>
<td>0.077</td>
<td>-1.22816 - 0.06230</td>
</tr>
<tr>
<td>MusPop</td>
<td>-0.24994</td>
<td>0.06410</td>
<td>-3.90</td>
<td>0.000</td>
<td>-0.37556 - -0.12431</td>
</tr>
<tr>
<td>EconAid</td>
<td>-0.77718</td>
<td>1.11349</td>
<td>-0.70</td>
<td>0.485</td>
<td>-2.95957 - 1.40521</td>
</tr>
<tr>
<td>FrePrs</td>
<td>0.30889</td>
<td>0.11144</td>
<td>2.78</td>
<td>0.005</td>
<td>0.09105 - 0.52672</td>
</tr>
<tr>
<td>IraqWar</td>
<td>-2.44872</td>
<td>1.09982</td>
<td>-2.23</td>
<td>0.026</td>
<td>-4.60433 - -0.29311</td>
</tr>
<tr>
<td>ObamaPres</td>
<td>15.46122</td>
<td>1.55980</td>
<td>9.91</td>
<td>0.000</td>
<td>12.40406 - 18.51838</td>
</tr>
<tr>
<td>Sigma u</td>
<td>13.85391</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sigma e</td>
<td>7.77844</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>0.76032</td>
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<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 323, groups 61
R² overall = 0.5468, within = 0.3368, between = 0.4586
Wald chi2 (15) = 176.63, Prob > chi2 = 0.0000

**Iraq War and Public Capacity Interaction**

Next, I test the seventh hypothesis that an increase in public capacity intensifies the negative relationship between the Iraq War and favorable global public opinion of the United States. To assess the effect of public capacity I interact the Iraq war variable with the public capacity variable. The interaction term tests the hypothesis that the relationship between the Iraq war and favorable global public opinion of the United States varies at different levels of public capacity. Table 5.3 presents the results of the full model with the Iraq war - public capacity interaction.

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6 Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
The Iraq war - public capacity interaction term is negative and significant. From the results of the full model with the Iraq war - public capacity interaction term we conclude that the interaction is significant at the 90% confidence level. The partial slope for the Iraq war - public capacity interaction term is negative 2.15276. *Ceteris paribus*, we expect a one-unit increase in public capacity to amplify the negative effect of the Iraq war on favorable public opinion of the United States by 2.15276 percentage points on average. This finding suggests that news of the Iraq war reverberated at a higher rate in countries with higher public capacity. Citizens residing in countries with higher levels of public capacity had greater exposure to news about the war and access to a greater variety of news sources. These citizens were more capable of repacking news of the war in tweets, blogs, and texts and sharing it with friends, families, and other audiences. In short, news of the Iraq war was repeated more frequently in countries with higher public capacity and had continuing and serious effects on public opinion. In this case, the higher rate of reverberation intensified the Iraq war’s negative effect on global public opinion. This finding confirms the seventh hypothesis that *an increase in public capacity intensifies the negative relationship between the Iraq War and favorable global public opinion of the United States.*

Figure 5.1 illustrates how the relationship between the Iraq War and favorable public opinion of the United States varies as public capacity increases. As public capacity moves from -2.5 to 1.5, the negative effect of the Iraq War becomes more pronounced.
The graph illustrates how the relationship between the Iraq War and favorable public opinion of the United States varies at different levels of public capacity increases. As public capacity increases, the negative effect of the Iraq War becomes more pronounced.

The Iraq war variable remained significant and negative when public capacity was zero. From the results of the model we conclude that the Iraq war variable is significant at the 95% confidence level. The partial slope coefficient for Iraq war is negative 2.29011 when public capacity is zero. \textit{Ceteris paribus}, we expect a one-unit increase in public capacity to decrease favorable public opinion of the United States by 2.15276 percentage points on average when the public capacity is zero.

The public capacity variable also remained significant and negative when the Iraq war was zero. From the results of the model we conclude that the public capacity variable is
significant at the 99% confidence level. The partial slope coefficient for public capacity is negative 8.90612. *Ceteris paribus*, we expect a one-unit increase in public capacity to decrease favorable public opinion of the United States by 8.90612 percentage points on average when the Iraq war is zero.

Additionally, the effects of four additional variables were significant in this model. Two of the variables were significant and negative: a militarized interstate dispute with the United States and Muslim population, and two of the variables were significant and positive: free press and the Obama presidency. From the results of the model we conclude that a militarized interstate dispute with the United States is significant at the 95% confidence level. The partial slope coefficient of the militarized interstate dispute variable is negative 3.60809. *Ceteris paribus*, we expect a one-level increase in militarized interstate dispute to decrease favorable public opinion of the United States by 3.60809 percentage points on average. Next, we conclude that the Muslim population variable is significant at the 99% confidence level. The partial slope coefficient for the Muslim population variable is negative 0.25344. *Ceteris paribus*, we expect a 1% increase in a country’s Muslim population to decrease favorable public opinion of the United States by 0.25344 percentage points on average.

Finally, the free press and the Obama presidency variables were significant and positive. From the model we conclude that the free press variable is significant at the 99% confidence level. The partial slope coefficient for free press is 0.31115. *Ceteris paribus*, we expect a one-point increase in a country’s press freedom score to increase favorable public opinion of the United States by 0.31115 percentage points on average. The Obama presidency variable is significant at the 99% confidence level. The partial slope for Obama presidency is 15.51964. *Ceteris paribus*, we expect favorable public opinion of the United States to increase by 15.51964.
percentage points during the Obama presidency on average. The full model with the Iraq war and public capacity interaction explains 55% of the variation in global public opinion of the United States \( (R^2 \text{ overall} = 0.5472) \).

Table 5.3 Full Model with Iraq War and Public Capacity Interaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>46.04851</td>
<td>7.18210</td>
<td>6.41</td>
<td>0.000</td>
<td>31.97185 - 60.12516</td>
</tr>
<tr>
<td>MuDefPac</td>
<td>-4.34452</td>
<td>5.03564</td>
<td>-0.86</td>
<td>0.388</td>
<td>-14.2142 - 5.52515</td>
</tr>
<tr>
<td>NATO</td>
<td>-4.64754</td>
<td>4.81304</td>
<td>-0.97</td>
<td>0.334</td>
<td>-14.0809 - 4.78585</td>
</tr>
<tr>
<td>MilAid</td>
<td>0.21117</td>
<td>1.94314</td>
<td>0.11</td>
<td>0.913</td>
<td>-3.5973 - 4.01965</td>
</tr>
<tr>
<td>USTrd</td>
<td>0.19296</td>
<td>0.14477</td>
<td>1.33</td>
<td>0.183</td>
<td>-0.0908 - 0.47670</td>
</tr>
<tr>
<td>NATO</td>
<td>-3.60809</td>
<td>1.43930</td>
<td>-2.51</td>
<td>0.012</td>
<td>-6.42908 - 0.78711</td>
</tr>
<tr>
<td>USMid</td>
<td>-2.36537</td>
<td>4.63977</td>
<td>-0.51</td>
<td>0.610</td>
<td>-11.4591 - 6.72841</td>
</tr>
<tr>
<td>TerEvt</td>
<td>-0.44510</td>
<td>0.49771</td>
<td>-0.89</td>
<td>0.371</td>
<td>-1.42061 - 0.53041</td>
</tr>
<tr>
<td>GDP</td>
<td>-0.00002</td>
<td>0.00015</td>
<td>-0.14</td>
<td>0.886</td>
<td>-0.00031 - 0.00026</td>
</tr>
<tr>
<td>Polity</td>
<td>-0.53050</td>
<td>0.32959</td>
<td>-1.61</td>
<td>0.107</td>
<td>-1.17647 - 0.11548</td>
</tr>
<tr>
<td>MusPop</td>
<td>-0.25344</td>
<td>0.06415</td>
<td>-3.95</td>
<td>0.000</td>
<td>-0.37917 - 0.1277</td>
</tr>
<tr>
<td>EconAid</td>
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<td>1.12561</td>
<td>-0.99</td>
<td>0.320</td>
<td>-3.3244 - 1.08790</td>
</tr>
<tr>
<td>FrePrs</td>
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<td>0.11086</td>
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<td>0.005</td>
<td>0.09387 - 0.52843</td>
</tr>
<tr>
<td>IraqWar</td>
<td>-2.29011</td>
<td>1.09864</td>
<td>-2.08</td>
<td>0.037</td>
<td>-4.44339 - 0.13682</td>
</tr>
<tr>
<td>PubCap</td>
<td>-8.90612</td>
<td>1.79661</td>
<td>-4.96</td>
<td>0.000</td>
<td>-12.4274 - 5.38483</td>
</tr>
<tr>
<td>IraqWar*PubCap</td>
<td>-2.15276</td>
<td>1.20533</td>
<td>-1.79</td>
<td>0.074</td>
<td>-4.51517 - 0.20965</td>
</tr>
<tr>
<td>ObamaPres</td>
<td>15.51964</td>
<td>1.55402</td>
<td>9.99</td>
<td>0.000</td>
<td>12.47382 - 18.56545</td>
</tr>
<tr>
<td>Sigma u</td>
<td>13.85260</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sigma e</td>
<td>7.73437</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>0.76234</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( n = 323, \text{ groups 61} \)

\( R^2 \text{ overall} = 0.5472, \text{ within} = 0.3472, \text{ between} = 0.4487 \)

Wald chi2 (16) = 180.88, Prob > chi2 = 0.0000

Obama Presidency and Public Capacity Interaction

Finally, I test the eighth hypothesis that an increase in public capacity intensifies the positive relationship between the Obama Presidency and favorable global public opinion of the United States. To assess the effect of public capacity I interact the Obama Presidency variable
with the public capacity variable. The interaction term tests the hypothesis that the relationship between the Obama Presidency and favorable global public opinion of the United States varies at different levels of public capacity. Table 5.4 presents the results of the full model with the Iraq war public capacity interaction.

The marginal effect of public capacity on the Obama presidency is positive and significant. From the results of the full model with the Obama presidency – public capacity interaction we conclude that the interaction is significant at the 99% confidence level. The partial slope coefficient for the Obama presidency – public capacity interaction term is 4.55122. *Ceteris paribus*, we expect a one-unit increase in public capacity to amplify the positive effect of the Obama presidency on favorable public opinion of the United States by 2.15276 percentage points on average. This finding suggests that news regarding the Obama presidency reverberated at a higher rate in countries with higher public capacity. Citizens residing in these countries had greater exposure to news about President Obama and access to stories from a greater variety of sources. Additionally, these citizens were more capable of repacking news of the Obama presidency in tweets, blogs, and texts and sharing their thoughts with friends, families, and other audiences. In short, news centered on the Obama presidency was repeated more frequently in countries with higher public capacity and had continuing and serious effects on public opinion. In this case, the higher rate of reverberation intensified the Obama presidency’s positive effect on global public opinion. This finding confirms the eighth hypothesis that *an increase in public capacity intensifies the positive relationship between the Obama Presidency and favorable global public opinion of the United States*.

---

7 Appendix B provides the specification for each statistical model. Additionally, Appendix C provides an in-depth description of all variables, their sources, and coding decisions.
Figure 5.2 illustrates how the relationship between Barack Obama’s presidency and favorable public opinion of the United States varies as public capacity increases. As public capacity moves from -2.5 to 1.5, the positive effect of the Obama presidency becomes more pronounced.

The Obama presidency variable remained significant and positive when public capacity was zero. From the results of the model we conclude that the Obama presidency variable is
significant at the 99% confidence level. The partial slope coefficient for Obama presidency is 14.99111. *Ceteris paribus*, we expect a one-unit increase in public capacity to increase favorable public opinion of the United States by 14.99111 percentage points on average when the public capacity is zero.

The public capacity variable remained significant and negative when Obama was not the president. From the results of the model we conclude that the public capacity variable is significant at the 99% confidence level. The partial slope coefficient for public capacity is negative 11.32596. *Ceteris paribus*, we expect a one-unit increase in public capacity to increase favorable public opinion of the United States by 11.32596 percentage points on average when Obama was not the president.

Additionally, the effects of three additional variables were significant in this model. Two of the variables were significant and negative: a militarized interstate dispute with the United States and Muslim population. One of the variables, free press, was significant and positive. From the results of the model we conclude that a militarized interstate dispute with the United States is significant at the 95% confidence level. The partial slope coefficient for militarized interstate dispute with the United States is negative 3.51064. *Ceteris paribus*, we expect a one-level increase in militarized interstate dispute to decrease favorable public opinion of the United States by 3.51064 percentage points on average. Next, we conclude that the Muslim population variable is significant at the 99% confidence level. The partial slope coefficient for the Muslim population variable is negative 0.23862. *Ceteris paribus*, we expect a 1% increase in a country’s Muslim population to decrease favorable public opinion of the United States by 0.23862 percentage points on average. Finally, the free press variable was significant and positive. From the model we conclude that the free press variable is significant at the 95% confidence level.
The partial slope coefficient for free press is 0.25431. *Ceteris paribus*, we expect a one-point increase in a country’s press freedom score to increase favorable public opinion of the United States by 0.25431 percentage points on average. The full model with the Obama presidency and public capacity interaction explains 57% of the variation in global public opinion of the United States.

Table 5.4 Full Model with Obama Presidency and Public Capacity Interaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Estimate</th>
<th>S.E.</th>
<th>t-value</th>
<th>p-value</th>
<th>95% Conf. Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
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<td>6.61</td>
<td>0.000</td>
<td>33.24483 – 61.25339</td>
</tr>
<tr>
<td>MuDefPac</td>
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<td>5.03385</td>
<td>-1.05</td>
<td>0.295</td>
<td>-15.1425 – 4.58982</td>
</tr>
<tr>
<td>NATO</td>
<td>-5.11712</td>
<td>4.78112</td>
<td>-1.07</td>
<td>0.284</td>
<td>-14.4879 – 4.25370</td>
</tr>
<tr>
<td>MilAid</td>
<td>0.05459</td>
<td>1.9149</td>
<td>0.03</td>
<td>0.977</td>
<td>-3.6986 – 3.80772</td>
</tr>
<tr>
<td>USTrd</td>
<td>0.18343</td>
<td>0.14388</td>
<td>1.27</td>
<td>0.202</td>
<td>-0.09855 – 0.46543</td>
</tr>
<tr>
<td>USMId</td>
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<td>1.42292</td>
<td>-2.47</td>
<td>0.014</td>
<td>-6.29951 – 0.71278</td>
</tr>
<tr>
<td>USCov</td>
<td>-3.01480</td>
<td>4.63220</td>
<td>-0.65</td>
<td>0.515</td>
<td>-12.0937 – 6.06413</td>
</tr>
<tr>
<td>TerEvt</td>
<td>-0.24645</td>
<td>0.49001</td>
<td>-0.50</td>
<td>0.615</td>
<td>-1.20685 – 0.71395</td>
</tr>
<tr>
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<td>0.00014</td>
<td>-0.19</td>
<td>0.848</td>
<td>-0.00031 – 0.00026</td>
</tr>
<tr>
<td>Polity</td>
<td>-0.20177</td>
<td>0.34425</td>
<td>-0.59</td>
<td>0.558</td>
<td>-0.87647 – 0.47294</td>
</tr>
<tr>
<td>MusPop</td>
<td>-0.23862</td>
<td>0.06405</td>
<td>-3.73</td>
<td>0.000</td>
<td>-0.36415 – 0.11309</td>
</tr>
<tr>
<td>EconAid</td>
<td>-1.08249</td>
<td>1.10022</td>
<td>-0.98</td>
<td>0.325</td>
<td>-3.23887 – 1.07390</td>
</tr>
<tr>
<td>FrePrs</td>
<td>0.25431</td>
<td>0.11091</td>
<td>2.29</td>
<td>0.022</td>
<td>0.03693 – 0.47168</td>
</tr>
<tr>
<td>IraqWar</td>
<td>-1.56671</td>
<td>1.10982</td>
<td>-1.41</td>
<td>0.158</td>
<td>-3.74193 – 0.6085</td>
</tr>
<tr>
<td>ObamaPres</td>
<td>14.99111</td>
<td>1.53844</td>
<td>9.74</td>
<td>0.000</td>
<td>11.97582 – 18.00641</td>
</tr>
<tr>
<td>PubCap</td>
<td>-11.32596</td>
<td>1.7943</td>
<td>-6.31</td>
<td>0.000</td>
<td>-14.8427 – 7.8092</td>
</tr>
<tr>
<td>ObamaPres*PubCap</td>
<td>4.55122</td>
<td>1.35287</td>
<td>3.36</td>
<td>0.001</td>
<td>1.89965 – 7.20279</td>
</tr>
<tr>
<td>Sigma u</td>
<td>13.90119</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sigma e</td>
<td>7.64593</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rho</td>
<td>0.76774</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

n = 323, groups 61
R² overall = 0.5705, within = 0.3632, between = 0.4665
Wald chi2 (16) = 193.14, Prob > chi2 = 0.0000

These results support the claim that a greater diversity and volume of news can intensify global public opinion. The Global information age provides foreign publics the ability to continually reassess events and update their opinion of the United States. As public capacity increases, global public opinion becomes less sticky.
The strategic implications of this are twofold. First, a word of warning, the United States cannot rest on its laurels when it enjoys positive public opinion. Positive opinion can change quickly if there is a misstep in foreign policy. For example, the effect of NATO membership on public opinion of the United States switched from positive, in the Goldsmith et al. study (2001 data set), to negative in this study (2002 – 2015 data set). I contribute this shift to the United States’ controversial decision to invade Iraq and the Bush administrations associated loss in credibility abroad. Unlike the war in Afghanistan, America’s decision to invade Iraq was largely a unilateral decision that was not supported by NATO.

The second strategic implication is more hopeful. The good news is that negative opinions of the United States are also less sticky, that is negative global public opinion can be changed. Here is where strategic opportunity abounds in the Global Information Age. Public capacity not only makes it much easier to engage foreign publics, but also strategically more important. How well governments adjust to this increased scrutiny is the defining strategic test of the Global Information Age.

What We Have Learned

The intent of this study is not to unveil the next grand strategy moniker, but rather reorient how we think about grand strategy and offer clues to what we should be thinking about. In that spirit I briefly summarize the findings of the study and offer suggestions for what those findings propose. Table 5.5 presents an overview of results from each of the eight models tested in this study.
First, the most important finding is related to the key concept, public capacity. The effect of public capacity shows how cyber technology has altered the international environment. In the twenty-first century, governments face increased scrutiny domestically and internationally. Public capacity amplifies the effect of government policies. On one hand missteps will be magnified. On the other hand, the merits of a nation’s actions will become more transparent. This growing trend of transparency is related to a second variable, free press (FrePrs). The positive effect of the free press variable suggests that more transparency works in favor of the
United States. As public capacity increases and the international environment continues its shift from a closed to a more open media market policymakers are wise to contemplate *how to fully exploit the trend of growing transparency in the international system?*

Second, this project identified two factors, in addition to free press, which positively affect global public opinion. These factors are trade with the United States (USTrd) and the Obama presidency (ObamaPres). On the trade side, the results suggest policymakers take a note from the Marshall Plan and identify regional priorities for building robust trading partners. Relatedly, it is important to think of economic aid as a tool for transitioning states from aid recipients to trading partners. Prime examples of this model are post-World War II Europe and South Korea. Despite limited budgets and much dissent, U.S. policymakers had the foresight to invest in these countries with aid packages. Their foresight has paid a handsome dividend. Today these countries rank among our strongest allies and trading partners.

Third, the result of the Obama presidency variable speaks to the currency of credibility. I argue that the Obama administration was viewed as a credible messenger by the international community, in contrast to the Bush administration whose international reputation was tarnished by the Iraqi weapons of mass destruction claim. Information was a scarce resource during the twentieth century. In contrast, the twenty-first century is awash in information. In the twenty-first century information age, credibility is the scarce resource. What is in greatest demand is credible information. The finding of the Obama presidency variable suggests policymakers should deeply consider *what actions build and sustain trust, confidence, and credibility across the international system and exercise caution when a policy risks diminishing credibility.*

Fourth, several variables, NATO membership (NATO), a militarized interstate dispute with the United States (USMid), and the Iraq war (IraqWar) suggest that military force often has
a lasting negative effect on global public opinion. This effect is not necessarily limited to the
country where the conflict took place, but may extend across the international system. These
findings are a warning to policymakers of the danger in an overreliance on military power. It is
true that the nation requires a strong military to be an effective global leader. It is reckless,
however, to blindly frame all debates concerning the military as divided between those that
support a strong military and those against a strong military. More accurately, what the nation
needs is an effective military. America’s military is most effective when it has strong
interagency partners at the Department of State, Treasury, and the United States Agency for
International Development (USAID). This finding supports the claims of Secretaries of Defense
Robert Gates and James Mattis who have argued that the military alone is incapable of defending
and advancing American interests abroad.  

Finally, what is most troubling is what we do not see. The results of this study do not
show a significant and positive effect on global public opinion of the United States among our
Allies (NATO), among sister democracies (Polity), among developed nations (GDP), or among
recipients of our economic and military aid (EconAid and MilAid). These are counterintuitive
findings. These findings are analogous to a flashing master caution light in a cockpit warning of
imminent danger. They suggest that something is fundamentally wrong in American foreign
policy, and subsequently, deserve greater attention.

This summary identifies four themes that broaden the range of the grand strategic debate
beyond a focus on defeating terrorism. Those themes are: a trend toward greater transparency,
the value of trade, the currency of credibility, and the danger of an overreliance on military

power. These themes point to the kinds of policies and combinations of power that will be most effective in the Global Information Age. In the search for a grand strategy, it is important to consider how these themes are related and how they can be refined and articulated in a concise and accessible manner to mobilize public support and help keep politicians focused on long-term national goals. This is the essence of grand strategy, developing the logic and intellectual architecture to advance our national goals not just for one administration, or for one generation, but for generations to come.

Why We Should Care: Power and Strategy in the Global Information Age

This study began with a dilemma: whether or not a single grand strategy can address the growing volume and variety of threats to national security in the twenty-first century. Some scholars argue that grand strategy is a relic of the past. Other scholars claim that a viable grand strategy is an indispensable foreign policy tool, yet they offer little practical advice on how to move forward. This study sheds light on the debate by shifting the focus of the debate from threats to technology.

Since the September 11, 2001 attacks, terrorism has consumed U.S. security concerns, and rightly so. Many terrorist threats have the potential to cause great harm to the nation and U.S. citizens. Defending the nation against terrorism and other physical threats must remain one of the nation’s highest priorities. Relatedly, the U.S. military must remain the cornerstone of American foreign policy. Terrorism, however, does not pose an existential threat to the United States. Moreover, since 9/11 the threat of terrorism has overshadowed a more profound, though subtle phenomenon. This phenomenon is the wave of cyber technology that has washed over the international system and upended traditional power dynamics.
The realist and liberal lenses that served so well throughout the latter twentieth century provide little help in understanding the strategic consequences of this change. These traditional models are incapable of detecting the power diffusion phenomenon and assessing the impact of increases in public capacity. Subsequently, they have ceased to adequately inform U.S. foreign policy decision-making. Instead of sharpening our understanding of the international environment, these traditional paradigms distort and obscure some of the most important challenges and strategic elements of the new century.

This study presents an alternative model of international politics, the three-level game, to address these theoretical shortcomings. The three-level game model accounts not only for the interests of domestic groups and foreign governments, but also the increasingly independent will and opinion of foreign publics. It demonstrates how power and leadership each play distinct roles in international politics and helps explain why an over-militarized foreign policy is ill suited to achieve America’s aspirations in this new and increasingly complex era. Finally, the three-level game offers clues to the kinds of policies and combinations of power that will be most effective in the information age. It directs attention to the value in balancing America’s traditional threat-centric grand strategy with a more population-centric approach focused on honing favorable global public opinion by exploiting transparency, cultivating strategic trading partners, fortifying the nation’s credibility, and maintaining an effective military.

The Global Information Age demands theoretical innovation on the part of scholars. Likewise, it compels policymakers to view the world through a new strategic lens—a lens that emphasizes the effect of cyber technology alongside the threat of terrorism. The development of a compelling theory that clearly shows how the recent proliferation of cyber technology elevates the role of global public opinion in international affairs is the first step to broadening America’s
strategic aperture and developing a grand strategy fit for the Global Information Age. Only then will scholars and policymakers be able to envision the strategic opportunities that abound in the twenty-first century.
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APPENDIX A: KEY CONCEPTS

*Cyber Technology:* information and communication technology related to personal computers, mobile cell phones, wireless Internet, and social media programs and applications.

*Foreign Publics:* a population that is represented by a foreign regime and has interests distinct from one’s own national interests.

*Global Information Age:* an era characterized by technologically empowered citizens.

*Global Public Opinion:* the opinion of foreign publics which government officials find prudent to heed.

*Grand Strategy:* the logic that guides a nation’s foreign policy decisions.

*Information Gap:* the discrepancy in access to information between the public and government officials.

*Involuntary Defection:* the inability of a government agent to deliver on a promise due to failed ratification at home.
Power Diffusion: the spread of political power away from government officials to the public.

Power Transition: the rise in power of a weak country to the extent it is able to challenge a previously dominant country.

Public Capacity: the ability of citizens to convert information into political power. Public capacity is measured by the extent citizens are able to access, produce, store, and exchange information, build awareness of political events, and collaborate and coordinate action, locally and globally.

Public Diplomacy: a government’s direct engagement with foreign publics in an effort to shape global public opinion.

Reverberation: the repeating of political messages. Cyber technology increases reverberation thus amplifying the effect of political messages on global public opinion.

Three-level Game: a theory of international politics that models the government, the public, and foreign publics as discrete actors. The three-level game emphasizes the emerging role of the public in international affairs, and subsequently, the strategic significance of the relationship between governments and foreign publics.
Traditional Diplomacy: a meeting between government officials representing separate nation-states to express national goals, assess the extent their preferences overlap, and explore opportunities for cooperation.

State Autonomy: the ability of government officials to make policy and take action without interference from the public.

Two-level Game: A theory of international negotiations that accounts for the effects of domestic politics on international outcomes.
APPENDIX B: SPECIFICATION OF STATISTICAL MODELS

Interest Model:

\[ Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \epsilon_{it} + u_{it} \]

\( Y_{it} \) = Global Public Opinion of the United States (GPO).

\( \beta_1 \) = Population intercept.

\( \beta_2 \) = Partial slope coefficient for mutual defense pact with the United States (MuDefPac).

\( X_{2it} \) = Predictor for mutual defense pact with United States (MuDefPac).

\( \beta_3 \) = Partial slope coefficient for NATO membership (NATO).

\( X_{3it} \) = Predictor for NATO membership (NATO).

\( \beta_4 \) = Partial slope coefficient for military aid from the United States (MilAid).

\( X_{4it} \) = Predictor for military aid from the United States (MilAid).

\( \beta_5 \) = Partial slope coefficient for trade with United States (USTrd).

\( X_{5it} \) = Predictor for trade with United States (USTrd).

\( \beta_6 \) = Partial slope coefficient for militarized interstate dispute with United States (USMid).

\( X_{6it} \) = Predictor for militarized interstate dispute with United States (USMid).

\( \beta_7 \) = Partial slope coefficient for covert action by the United States (USCov).

\( X_{7it} \) = Predictor for covert action by the United States (USCov).

\( \epsilon_{it} \) = Disturbance term for individual countries
$u_{it} = $ Disturbance term for population

Socialization Model:

$Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \epsilon_{it} + u_{it}$

$Y_{it} = $ Global Public Opinion of the United States (GPO).

$\beta_1 = $ Population intercept.

$\beta_2 = $ Partial slope coefficient for terrorist event (TerEvt).

$X_{2it} = $ Predictor for terrorist event (TerEvt).

$\beta_3 = $ Partial slope coefficient for gross domestic product (GDP).

$X_{3it} = $ Predictor for gross domestic product (GDP).

$\beta_4 = $ Partial slope coefficient for polity (Polity).

$X_{4it} = $ Predictor for polity (Polity).

$\beta_5 = $ Partial slope coefficient for Muslim population (MusPop).

$X_{5it} = $ Predictor for Muslim population (MusPop).

$\epsilon_i = $ Disturbance term for individual countries

$u_{it} = $ Disturbance term for population

Influence Model:

$Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \epsilon_{it} + u_{it}$

$Y_{it} = $ Global Public Opinion of the United States (GPO).

$\beta_1 = $ Population intercept.

$\beta_2 = $ Partial slope coefficient for economic aid from the United States (EconAid).

$X_{2it} = $ Predictor for economic aid from the United States (EconAid).
\( \beta_3 \) = Partial slope coefficient for press freedom (FrePrs).

\( X_{3it} \) = Predictor for press freedom (FrePrs).

\( \varepsilon_i \) = Disturbance term for individual countries

\( u_{it} \) = Disturbance term for population

Combined Model:

\[
Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + \\
\beta_{10} X_{10it} + \beta_{11} X_{11it} + \beta_{12} X_{12it} + \beta_{13} X_{13it} + \beta_{14} X_{14it} + \varepsilon_{it} + u_{it}
\]

\( Y_{it} \) = Global Public Opinion of the United States (GPO).

\( \beta_1 \) = Population intercept.

\( \beta_2 \) = Partial slope coefficient for mutual defense pact with the United States (MuDefPac).

\( X_{2it} \) = Predictor for mutual defense pact with United States (MuDefPac).

\( \beta_3 \) = Partial slope coefficient for NATO membership (NATO).

\( X_{3it} \) = Predictor for NATO membership (NATO).

\( \beta_4 \) = Partial slope coefficient for military aid from the United States (MilAid).

\( X_{4it} \) = Predictor for military aid from the United States (MilAid).

\( \beta_5 \) = Partial slope coefficient for trade with United States (USTrd).

\( X_{5it} \) = Predictor for trade with United States (USTrd).

\( \beta_6 \) = Partial slope coefficient for militarized interstate dispute with United States (USMid).

\( X_{6it} \) = Predictor for militarized interstate dispute with United States (USMid).

\( \beta_7 \) = Partial slope coefficient for covert action by the United States (USCov).
\( X_{7it} \) = Predictor for covert action by the United States (USCov).

\( \beta_8 \) = Partial slope coefficient for terrorist event (TerEvt).

\( X_{8it} \) = Predictor for terrorist event (TerEvt).

\( \beta_9 \) = Partial slope coefficient for gross domestic product (GDP).

\( X_{9it} \) = Predictor for gross domestic product (GDP).

\( \beta_{10} \) = Partial slope coefficient for polity (Polity).

\( X_{10it} \) = Predictor for polity (Polity).

\( \beta_{11} \) = Partial slope coefficient for Muslim population (MusPop).

\( X_{11it} \) = Predictor for Muslim population (MusPop).

\( \beta_{12} \) = Partial slope coefficient for economic aid from the United States (EconAid).

\( X_{12it} \) = Predictor for economic aid from the United States (EconAid).

\( \beta_{13} \) = Partial slope coefficient for press freedom (FrePrs).

\( X_{13it} \) = Predictor for press freedom (FrePrs).

\( \epsilon_i \) = Disturbance term for individual countries

\( u_{it} \) = Disturbance term for population

**Full Model:**

\[ Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + \]

\[ \beta_{10} X_{10it} + \beta_{11} X_{11it} + \beta_{12} X_{12it} + \beta_{13} X_{13it} + \beta_{14} X_{14it} + \beta_{15} X_{15it} + \epsilon_{it} + u_{it} \]

\( Y_{it} \) = Global Public Opinion of the United States (GPO).

\( \beta_1 \) = Population intercept.

\( \beta_2 \) = Partial slope coefficient for mutual defense pact with the United States (MuDefPac).
\(X_{2it}\) = Predictor for mutual defense pact with United States (MuDefPac).

\(\beta_3\) = Partial slope coefficient for NATO membership (NATO).

\(X_{3it}\) = Predictor for NATO membership (NATO).

\(\beta_4\) = Partial slope coefficient for military aid from the United States (MilAid).

\(X_{4it}\) = Predictor for military aid from the United States (MilAid).

\(\beta_5\) = Partial slope coefficient for trade with United States (USTrd).

\(X_{5it}\) = Predictor for trade with United States (USTrd).

\(\beta_6\) = Partial slope coefficient for militarized interstate dispute with United States (USMid).

\(X_{6it}\) = Predictor for militarized interstate dispute with United States (USMid).

\(\beta_7\) = Partial slope coefficient for covert action by the United States (USCov).

\(X_{7it}\) = Predictor for covert action by the United States (USCov).

\(\beta_8\) = Partial slope coefficient for terrorist event (TerEvt).

\(X_{8it}\) = Predictor for terrorist event (TerEvt).

\(\beta_9\) = Partial slope coefficient for gross domestic product (GDP).

\(X_{9it}\) = Predictor for gross domestic product (GDP).

\(\beta_{10}\) = Partial slope coefficient for polity (Polity).

\(X_{10it}\) = Predictor for polity (Polity).

\(\beta_{11}\) = Partial slope coefficient for Muslim population (MusPop).

\(X_{11it}\) = Predictor for Muslim population (MusPop).

\(\beta_{12}\) = Partial slope coefficient for economic aid from the United States (EconAid).

\(X_{12it}\) = Predictor for economic aid from the United States (EconAid).

\(\beta_{13}\) = Partial slope coefficient for press freedom (FrePrs).
$X_{13it} =$ Predictor for press freedom (FrePrs).

$\beta_{14}$ = Partial slope coefficient for Iraq war (IraqWar).

$X_{14it} =$ Predictor for Iraq war (IraqWar).

$\beta_{15}$ = Partial slope coefficient for Obama presidency (ObamaPres).

$X_{15it} =$ Predictor for Obama presidency (ObamaPres).

$\varepsilon_l =$ Disturbance term for individual countries

$u_{it} =$ Disturbance term for population

Full Model with Public Capacity as Independent Variable:

$Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} +$

$\beta_{10} X_{10it} + \beta_{11} X_{11it} + \beta_{12} X_{12it} + \beta_{13} X_{13it} + \beta_{14} X_{14it} + \beta_{15} X_{15it} + \beta_{16} X_{16it} + \varepsilon_{it} + u_{it}$

$Y_{it} =$ Global Public Opinion of the United States (GPO).

$\beta_1 =$ Population intercept.

$\beta_2 =$ Partial slope coefficient for mutual defense pact with the United States (MuDefPac).

$X_{2it} =$ Predictor for mutual defense pact with United States (MuDefPac).

$\beta_3 =$ Partial slope coefficient for NATO membership (NATO).

$X_{3it} =$ Predictor for NATO membership (NATO).

$\beta_4 =$ Partial slope coefficient for military aid from the United States (MilAid).

$X_{4it} =$ Predictor for military aid from the United States (MilAid).

$\beta_5 =$ Partial slope coefficient for trade with United States (USTrd).

$X_{5it} =$ Predictor for trade with United States (USTrd).
\( \beta_6 \) = Partial slope coefficient for militarized interstate dispute with United States (USMid).

\( X_{6it} \) = Predictor for militarized interstate dispute with United States (USMid).

\( \beta_7 \) = Partial slope coefficient for covert action by the United States (USCov).

\( X_{7it} \) = Predictor for covert action by the United States (USCov).

\( \beta_8 \) = Partial slope coefficient for terrorist event (TerEvt).

\( X_{8it} \) = Predictor for terrorist event (TerEvt).

\( \beta_9 \) = Partial slope coefficient for gross domestic product (GDP).

\( X_{9it} \) = Predictor for gross domestic product (GDP).

\( \beta_{10} \) = Partial slope coefficient for polity (Polity).

\( X_{10it} \) = Predictor for polity (Polity).

\( \beta_{11} \) = Partial slope coefficient for Muslim population (MusPop).

\( X_{11it} \) = Predictor for Muslim population (MusPop).

\( \beta_{12} \) = Partial slope coefficient for economic aid from the United States (EconAid).

\( X_{12it} \) = Predictor for economic aid from the United States (EconAid).

\( \beta_{13} \) = Partial slope coefficient for press freedom (FrePrs).

\( X_{13it} \) = Predictor for press freedom (FrePrs).

\( \beta_{14} \) = Partial slope coefficient for Iraq war (IraqWar).

\( X_{14it} \) = Predictor for Iraq war (IraqWar).

\( \beta_{15} \) = Partial slope coefficient for Obama presidency (ObamaPres).

\( X_{15it} \) = Predictor for Obama presidency (ObamaPres).

\( \beta_{16} \) = Partial slope coefficient for Public Capacity (PubCap).

\( X_{16it} \) = Predictor for Public Capacity (PubCap).
\( \varepsilon_i \) = Disturbance term for individual countries

\( u_{it} \) = Disturbance term for population

Full Model with Iraq War and Public Capacity interaction:

\[
Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + \beta_{10} X_{10it} + \beta_{11} X_{11it} + \beta_{12} X_{12it} + \beta_{13} X_{13it} + \beta_{14} X_{14it} + \beta_{15} X_{15it} + \beta_{16} X_{16it} + \beta_{17} X_{17it} + \varepsilon_{it} + u_{it}
\]

\( Y_{it} \) = Global Public Opinion of the United States (GPO).

\( \beta_1 \) = Population intercept.

\( \beta_2 \) = Partial slope coefficient for mutual defense pact with the United States (MuDefPac).

\( X_{2it} \) = Predictor for mutual defense pact with United States (MuDefPac).

\( \beta_3 \) = Partial slope coefficient for NATO membership (NATO).

\( X_{3it} \) = Predictor for NATO membership (NATO).

\( \beta_4 \) = Partial slope coefficient for military aid from the United States (MilAid).

\( X_{4it} \) = Predictor for military aid from the United States (MilAid).

\( \beta_5 \) = Partial slope coefficient for trade with United States (USTrd).

\( X_{5it} \) = Predictor for trade with United States (USTrd).

\( \beta_6 \) = Partial slope coefficient for militarized interstate dispute with United States (USMid).

\( X_{6it} \) = Predictor for militarized interstate dispute with United States (USMid).

\( \beta_7 \) = Partial slope coefficient for covert action by the United States (USCov).

\( X_{7it} \) = Predictor for covert action by the United States (USCov).
\( \beta_8 \) = Partial slope coefficient for terrorist event (TerEvt).

\( X_{8it} \) = Predictor for terrorist event (TerEvt).

\( \beta_9 \) = Partial slope coefficient for gross domestic product (GDP).

\( X_{9it} \) = Predictor for gross domestic product (GDP).

\( \beta_{10} \) = Partial slope coefficient for polity (Polity).

\( X_{10it} \) = Predictor for polity (Polity).

\( \beta_{11} \) = Partial slope coefficient for Muslim population (MusPop).

\( X_{11it} \) = Predictor for Muslim population (MusPop).

\( \beta_{12} \) = Partial slope coefficient for economic aid from the United States (EconAid).

\( X_{12it} \) = Predictor for economic aid from the United States (EconAid).

\( \beta_{13} \) = Partial slope coefficient for press freedom (FrePrs).

\( X_{13it} \) = Predictor for press freedom (FrePrs).

\( \beta_{14} \) = Partial slope coefficient for Iraq war (IraqWar).

\( X_{14it} \) = Predictor for Iraq war (IraqWar).

\( \beta_{15} \) = Partial slope coefficient for Obama presidency (Obamapres).

\( X_{15it} \) = Predictor for Obama presidency (Obamapres).

\( \beta_{16} \) = Partial slope coefficient for Public Capacity (PubCap).

\( X_{16it} \) = Predictor for Public Capacity (PubCap).

\( \beta_{17} \) = Partial slope coefficient for Iraq war (Iraqwar) and Public Capacity (PubCap) interaction.

\( X_{17it} \) = Predictor for Iraq war (IraqWar) and Public Capacity (PubCap) interaction.

\( \varepsilon_t \) = Disturbance term for individual countries

\( u_{it} \) = Disturbance term for population
Full Model with Obama Presidency and Public Capacity Interaction:

\[ Y_{it} = \beta_1 + \beta_2 X_{2it} + \beta_3 X_{3it} + \beta_4 X_{4it} + \beta_5 X_{5it} + \beta_6 X_{6it} + \beta_7 X_{7it} + \beta_8 X_{8it} + \beta_9 X_{9it} + \]
\[ \beta_{10} X_{10it} + \beta_{11} X_{11it} + \beta_{12} X_{12it} + \beta_{13} X_{13it} + \beta_{14} X_{14it} + \beta_{15} X_{15it} + \beta_{16} X_{16it} + \]
\[ \beta_{17} X_{17it} + \epsilon_{it} + u_{it} \]

\[ Y_{it} = \text{Global Public Opinion of the United States (GPO).} \]

\[ \beta_1 = \text{Population intercept.} \]

\[ \beta_2 = \text{Partial slope coefficient for mutual defense pact with the United States (MuDefPac).} \]

\[ X_{2it} = \text{Predictor for mutual defense pact with United States (MuDefPac).} \]

\[ \beta_3 = \text{Partial slope coefficient for NATO membership (NATO).} \]

\[ X_{3it} = \text{Predictor for NATO membership (NATO).} \]

\[ \beta_4 = \text{Partial slope coefficient for military aid from the United States (MilAid).} \]

\[ X_{4it} = \text{Predictor for military aid from the United States (MilAid).} \]

\[ \beta_5 = \text{Partial slope coefficient for trade with United States (USTrd).} \]

\[ X_{5it} = \text{Predictor for trade with United States (USTrd).} \]

\[ \beta_6 = \text{Partial slope coefficient for militarized interstate dispute with United States (USMid).} \]

\[ X_{6it} = \text{Predictor for militarized interstate dispute with United States (USMid).} \]

\[ \beta_7 = \text{Partial slope coefficient for covert action by the United States (USCov).} \]

\[ X_{7it} = \text{Predictor for covert action by the United States (USCov).} \]

\[ \beta_8 = \text{Partial slope coefficient for terrorist event (TerEvt).} \]

\[ X_{8it} = \text{Predictor for terrorist event (TerEvt).} \]

\[ \beta_9 = \text{Partial slope coefficient for gross domestic product (GDP).} \]
\( X_{9it} \) = Predictor for gross domestic product (GDP).

\( \beta_{10} \) = Partial slope coefficient for polity (Polity).

\( X_{10it} \) = Predictor for polity (Polity).

\( \beta_{11} \) = Partial slope coefficient for Muslim population (MusPop).

\( X_{11it} \) = Predictor for Muslim population (MusPop).

\( \beta_{12} \) = Partial slope coefficient for economic aid from the United States (EconAid).

\( X_{12it} \) = Predictor for economic aid from the United States (EconAid).

\( \beta_{13} \) = Partial slope coefficient for press freedom (FrePrs).

\( X_{13it} \) = Predictor for press freedom (FrePrs).

\( \beta_{14} \) = Partial slope coefficient for Iraq war (IraqWar).

\( X_{14it} \) = Predictor for Iraq war (IraqWar).

\( \beta_{15} \) = Partial slope coefficient for Obama presidency (ObamaPres).

\( X_{15it} \) = Predictor for Obama presidency (ObamaPres).

\( \beta_{16} \) = Partial slope coefficient for Public Capacity (PubCap).

\( X_{16it} \) = Predictor for Public Capacity (PubCap).

\( \beta_{17} \) = Partial slope coefficient for Obama presidency (ObamaPres) and Public Capacity (PubCap) interaction.

\( X_{17it} \) = Predictor for Iraq war (Iraqwar) and Public Capacity (PubCap) interaction.

\( \epsilon_i \) = Disturbance term for individual countries

\( u_{it} \) = Disturbance term for population
APPENDIX C: DESCRIPTION OF VARIABLES

Dependent Variable

Favorable Opinion of the United States: The percentage of a country’s population with a favorable opinion of the United States measured annually. The abbreviation for the dependent variable throughout the study is FavOpn. Source: Pew Research Center, Global Attitudes and Trends, Global Indicators Database (www.pewglobal.org/database/indicator/1/).

Key Independent Variables of Interest

Public Capacity: The extent a country’s citizens are able to access, produce, store, and exchange information, build awareness of political events, and collaborate and coordinate action, locally and globally. Public capacity is a latent variable that is measured by combining three metrics: percentage of a country’s population that use the Internet, percentage of a country’s population that has a mobile cellular subscription, and a country’s adult literacy rate. I combine these metrics to derive a public capacity score using factor analysis. The abbreviation for this variable throughout the study is PubCap. Source: Data for Internet use, mobile cellular subscriptions and adult literacy rate are taken from the World Bank’s indicators, “Individuals using the Internet (% of the population),” “mobile cellular subscriptions (per 100 people),” and “Adult literacy rate, population 15+ years, both sexes (%)” tabs, respectively at http://data.worldbank.org.indicator. Data for adult literacy rate was not available for each year. I conducted linear interpolation to derive the missing data. Additionally, several developed countries had no data in the World
Bank data set. These countries include Australia, Canada, Czech Republic, France, Germany, Israel, Japan, Netherlands, Slovakia, and the United Kingdom. The adult literacy rate for these developed countries was taken from Index Mundi, a data portal that compiles facts and statistics from multiple sources. The source of the data is the CIA World Factbook. The web address for index mundi is http://www.indexmundi.com/map/?t=0&v=39&r=xx&l=en.

**Iraq War**: A dummy variable coded 1 during the years the United States was engaged in Operation Iraqi Freedom (2003 – 2011) and coded 0 otherwise. The abbreviation for this variable throughout the study is *IraqWar*.

**Obama Presidency**: A dummy variable coded 1 during the years Barack Obama served as U.S. president (2009-2016) and 0 otherwise. The abbreviation for this variable throughout the study is *ObamaPres*.

**Interests Model Independent Variables**

**Mutual defense pact with the United States**: A dummy variable coded 1 if a country has a mutual defense pact with the United States and coded 0 otherwise. The abbreviation for this variable throughout the study is *MuDefPac*. Source: The Correlates of War Project, Formal Alliances dataset (v4.1). I used the directed dyad dataset, “alliance_v.4.1_directed.” The COW Formal Alliances directed dyad dataset ends in 2012. The dataset for his study includes years up to 2015. The column “right_censor,” in the Formal Alliance dataset, is coded “1” if the directed-dyad is still considered in the alliance as of December 31, 2012. I coded all post 2012 years as
“1” if the alliance was still active on December 31, 2012. (http://www.correlatesofwar.org/data-sets/formal-alliances).

**North American Treaty Organization (NATO) member:** A dummy variable coded 1 if a country is a member of NATO and coded 0 otherwise. The abbreviation for this variable throughout the study is *NATO*. Source: NATO website (http://www.nato.int/cps/en/cpsolive/topics_52044.htm)


**Highest Militarized Interstate Dispute (MID) with the United States:** The highest hostility level MID with the United States from 1990 – 2010. The Correlates of War dataset does not have information beyond the year 2010. The range of hostility levels is 1 – 5. I code a 0 if no dispute is recorded. The abbreviation for this variable throughout the study is *USMid*. Source: The Correlates of War Project, Militarized Interstate Dispute dataset at the participant level (MIDB_v.4.01). ([http://www.correlatesofwar.org/data-sets/MIDs](http://www.correlatesofwar.org/data-sets/MIDs)).

**United States covert intervention:** A dummy variable coded 1 if a country has at least one (known) instance of U.S. covert intervention since 1945. Goldsmith, Horiuchi, and Inoguchi, in their 2005 study, identify Greece, Guatemala, and the Philippines as countries with at least one known instance of U.S. covert intervention since 1945. I include these countries and supplement this information with examples taken from Loch Johnson’s chapter on Covert Action in *American Foreign Policy and the Challenges of World Leadership: Power, Principle, and the Constitution*. The abbreviation for this variable throughout the study is *USCov*. These countries are Ukraine, Poland, Hungary, Indonesia, China, Malaysia, Venezuela, Thailand, Lebanon, Turkey, and Pakistan. Source: See Loch K. Johnson, *American Foreign Policy and the Challenges of World Leadership: Power, Principle, and Purpose*. (New York: Oxford University Press, 2015), p. 367-402.

**Socialization Model Independent Variables**

**Past terrorist incidents:** The total number of significant terrorist events that a country experienced each year. I count all events to include sentencing of convicted terrorist since these events are carried widely in the news, and therefore, increase the publics awareness and
sensitivity to terrorism. The abbreviation for this variable throughout the study is TerEvt.

Source: The National Counterterrorism Center’s “Counterterrorism Guide” presents a timeline of significant terrorist events by country and year. The timeline may be accessed via the “Counterterrorism Guide” located at https://www.nctc.gov/site/timeline.html or accessed directly at https://www.dni.gov/nctc/timeline.html.

Gross Domestic Product (GDP) per capita: GDP per capita based on purchasing power parity (in constant 2011 international dollars). The abbreviation for this variable throughout the study is GDP. Source: World Bank’s indicators, Economy and Growth, “GDP per capita (current international$)” tab, (http://data.worldbank.org/indicator).

Polity Score: A country’s revised combined polity score (POLITY2) with a range from -10 to +10. The abbreviation for this variable throughout the study is Polity. Source: The Center for Systemic Peace’s integrated Network for Societal Conflict Research (http://www.systemicpeace.org/inscrdata.html).

Muslim Population: The percent of a country’s population that is Muslim. The abbreviation for this variable throughout the study is MusPop. Source: Central Intelligence Agency’s World Factbook under the “Religion” field listing tab. The World Factbook does not provide annual data. I assume religion to be a stable metric. Therefore, I use the most recent information provided in the World Factbook for a country’s Muslim population for all years in the dataset. For example, the World Factbook lists Canada’s Muslim population as 3.2%. Therefore, I code Canada’s Muslim population as 3.2% for all years in the dataset. Additionally, for some
countries the World Factbook provides a range. When a range is given I take the mean of the range. For example, Russia’s Muslim population is listed as 10-15%. In this case I code Russia’s Muslim population as 12.5% for all years in the dataset.


*Influence Model Independent Variables*


**Press freedom:** A measure of media independence that assesses the degree of print, broadcast, and digital media on a range from 0 – 100. Lower scores represent more press freedom. To allow a more intuitive interpretation, I take the inverse of the score so that a higher score corresponds to more freedom. For example, if a score is 21 then I code as 79. The abbreviation for this variable is *FrePrs*. Source: Freedom House, “Scores and Status 1980 – 2016” file located at: https://freedomhouse.org/report-types/freedom-press.
APPENDIX D: STATA CODE AND DIAGNOSTICS

The master data set is located on my personal webpage: joshuamassey.squarespace.com.

Stata code

clear

set more off

import excel "C:\Users\jnmassey\Desktop\Masterpubcap.xlsx", firstrow

CHAPTER FOUR

Descriptive Statistics:

sum FavOpn MuDefPac NATO MilAid USTrd USMid USCov TerEvt GDP Polity MusPop EconAid FrePrs

Random Effects Preparation:

encode Country, gen(id)

list Country id in 1/61, sepby (Country)

xtset id Year

Interests Model:

xtreg FavOpn MuDefPac NATO MilAid USTrd USMid USCov

Socialization Model:

xtreg FavOpn TerEvt GDP Polity MusPop

Influence Model:
xtreg FavOpn EconAid FrePrs

**Combined Model:**

treg FavOpn MuDefPac NATO MilAid USTrd USMid USCoV TerEvt GDP Polity MusPop EconAid FrePrs

**Descriptive Statistics:**

sum IraqWar ObamaPres

**Combined Model:**

xtreg FavOpn MuDefPac NATO MilAid USTrd USMid USCoV TerEvt GDP Polity MusPop EconAid FrePrs IraqWar ObamaPres

**CHAPTER FIVE**

**Factor Analysis:**

factor PubCapInt PubCapMo PubCapLit

rotate

predict PubCap

**Descriptive Statistics:**

sum PubCap

**Full Model with PubCap as IV:**

xtreg FavOpn PubCap MuDefPac NATO MilAid USTrd USMid USCoV TerEvt GDP Polity MusPop EconAid FrePrs IraqWar ObamaPres

**Full Model with IraqWar##PubCap Interaction:**

xtreg FavOpn MuDefPac NATO MilAid USTrd USMid USCoV TerEvt GDP Polity MusPop EconAid FrePrs IraqWar##c.PubCap ObamaPres
Margins Plot Example:
margins, dydx(IraqWar) at ((means) MuDefPac=0 NATO=0 USCov=0 ObamaPres=0
PubCap=(-2.5 (.5) 1.5))
marginsplot, recast(line) recastci(rarea)

Full Model with ObamaPres##PubCap Interaction:
xtreg FavOpn MuDefPac NATO MilAid USTrd USMid USCov TerEvt GDP Polity MusPop
EconAid FrePrs IraqWar ObamaPres##c.PubCap
margins, dydx(ObamaPres) at ((means) MuDefPac=0 NATO=0 USCov=0 ObamaPres=0
PubCap=(-2.5 (.5) 1.5))
marginsplot, recast(line) recastci(rarea)