

WOR(L)DS OF DR. STRANGELOVE:

*The Persuasiveness and Institutionalization of Defense Rationalist Ideas on
Nuclear Strategy, 1948-1963*

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Declaration

I hereby declare that this thesis contains no materials accepted for any other degrees, in any other institution. The thesis contains no materials previously written and/or published by any other person, except where appropriate acknowledgement is made in the form of bibliographical reference.

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19 September 2014

Abstract

The Cold War has been over for two decades, yet (nuclear) deterrence theory remains a key conceptual tool in strategic studies. Ideas such as counterforce—the targeting of enemy forces as opposed to cities—and second strike deterrence are still naturalized artefacts for academics and policymakers alike: not as much debated but refined by contemporaries. The logic of a “delicate balance of terror” outlived the superpower confrontation and has been transplanted into other issue areas, such as drone warfare, deterring terrorism or cyberattacks. Thus, the jargon of the civilian strategists commonly referred to as “defense rationalists” is still a prominent feature of contemporary US defense policy narratives, along with its inherent biases.

Although claims about the laws of a non-event like nuclear war are still highly problematic, something makes these ideas “sound right”, or commonsensical. This dissertation problematizes the historical contingency of these concepts by reinterpreting the realm of nuclear strategy, construing it as an interpretative enterprise where a multitude of ideas compete. The power of ideas is most obvious in the act of naming: assigning names to phenomena, thereby enabling multiple avenues of actions. Experts in this environment in turn influence outcomes by rendering their ideas persuasive for other actors through language.

This dissertation applies the toolkit of discursive institutionalism and interpretivism, and offers a conceptual synthesis of the two through a new micro-theory of persuasion: *contextual suasion*. Contextual suasion improves on existing approaches by linking the agency concept embedded in interpretivism, and discursive institutionalism’s concept of structure through a mechanism of idea dissemination via textualization and re(con)textualization. It understands persuasion as a correspondence between idea and its

environment—a correspondence that is not necessarily static, but can be manipulated. The more an idea is in line with its context—a composite of traditions, beliefs about interests, other ideas etc.—the more it “sounds right” to audiences, and is more likely to be accepted either as an internalized belief or as a strategic tool. Institutionalization then is linked to persuasiveness through the concept of discursive dominance: in order to serve as the basis of policy decisions and institutions, an idea has to dominate the policy discourse.

In order to answer the central research question—*What explains the initial successful institutionalization of defense rationalism?*—an empirical analysis is conducted on a selection of hallmark research from the RAND Corporation (“the quintessential Cold War think tank”) on nuclear bombing, second strike deterrence and war limitation in the early Cold War (1948-1963), showing that the lasting impact of these ideas has less to do with their problematic correspondence to reality, than their versatility as carriers of “scientific” and “rational” storylines.

With its dual focus on interpretive theory-building and empirics the dissertation contributes to a number of topics within international relations, including the history and internal workings of the deterrence discourse, the limits and dynamics of expert influence on policy-making, defense policy think tank-patron interactions in the American context, the use of scientific language for sanitizing military discourse, and last, but not least, the influence of ideas on “hardcore” policy areas such as national defense from an interpretivist point of view.

Acknowledgments

I am now at the end of a seven-year long journey that took the better part of my 20s. It has been a bumpy, but exciting ride that spanned two continents and at least three universities. During these years I have spoken to a diverse group of people about the project, about the miseries of being a graduate student, about life, the universe and everything. Many people on this list may not have realized back then just how important these conversations were, both for my research and my mental health. But they were, and I am eternally grateful for them. So now this very personal list of people I want to acknowledge is long, and I feel like a successful sound editor at the Oscars ceremony who wants to thank his whole team and family, but no one in the audience—save for those mentioned—really cares about the speech. They want to get to the content. In my case, my readers are probably already looking forward to stories of mushroom clouds and mad science. Well, time to do this before the microphone disappears and the orchestra starts playing.

First and foremost I would like to express my deep appreciation and gratitude to my supervisor, Alex Astrov, for the guidance and mentorship he provided. His intellect is only matched by his love for movies—a trait we share with gusto. Maybe I'll do my next doctorate in film studies, who knows? I would also like to thank Tamás Meszerics for launching me on the right track by provoking my interest in rational choice theory and the people who created it. As this dissertation attests, looking behind the curtains of game theory is a slippery slope, and you may very well end up going through coffee-stained archival documents on nuclear targeting.

This dissertation never would have been finished to my satisfaction without said archival work in the United States. I would like to thank the Hungarian Fulbright Commission

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Friends helped me take my mind off research so that I could get back to it with my sanity intact. Thank you Doro, Orsi and Olga for wonderfully deep and silly conversations

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In the wake of the First World War, war was seen as too important to leave to generals, and it was taken over by the politicians. They, having done little better in the Second World War, left the field to the academics.

/Michael MccGwire/

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INTRODUCTION: THINKERS OF THE UNTHINKABLE

Warfare is no longer a military problem.

/General Curtis E. LeMay, USAF¹/

In Spring 2012 I was present at the lecture of an analyst from the RAND Corporation on the possibility of cyberdeterrence—detering potential enemies of the United States from launching a cyberattack by threatening with retaliation—held at the US Congress. The lecturer, who shall not be named here, urged a return to deterrence as it was practiced during the Cold War. Assertively, he argued that the strategy of threatening the Soviet Union with nuclear retaliation-in-kind contributed to the US “winning” the Cold War, so the strategy has proven its effectiveness. Though a few caveats necessarily apply when moving such a concept from one national security field to another, he argued, deterrence in the cybersphere is—to paraphrase Dr. Strangelove²—not only possible, but essential. This whole argument struck me as anachronistic—a feeling reinforced by the presented book’s cover depicting a mushroom cloud made of ones and zeroes, undoubtedly chosen to invoke old connotations. Can such an untested, Cold War-born concept supposedly specific to nuclear weapons be so ageless? So...generalizable? Does deterrence theory explain the logic of any conflict, not just nuclear war? Meanwhile the audience was very enthusiastic and the analyst was treated like a rock star. Using deterrence to avert cyberattacks simply made sense to them.

This personal anecdote is only one example of the prevalence of deterrence thinking in the contemporary United States. Ideas such as counterforce are still naturalized artefacts for

¹ Deputy Chief of Air Staff for Research and Development, 1945-47, future commander of the Strategic Air Command (SAC) and Air Force Chief of Staff. Quote from ca. 1946. Quoted in Jardini, 1996, p. 314.

² Dr. Strangelove (played by Peter Sellers) is an ex-Nazi scientist/strategist in Stanley Kubrick’s satire *Dr. Strangelove or: How I Stopped Worrying and Love the Bomb* (Kubrick, 1964). His cartoonish, yet menacing character, along with the lines he delivers, provide a smart and perceptive caricature of defense rationalists and their ideas.

academics and policymakers alike: not as much debated but refined by contemporaries. The logic of a “delicate balance of terror” apparently outlived the superpower confrontation and has been transplanted into other issue areas, like the cyberworld. Thus, the jargon of “cold warriors” is still a prominent feature of contemporary US defense policy narratives, along with its inherent biases. Although claims about the laws of a non-event like nuclear war are still highly problematic, something makes these ideas “sound right”. But sounding right does not make one right, or does it? Questioning the timelessness of these concepts, this dissertation problematizes their historical contingency by reinterpreting the realm of nuclear strategy as an interpretative enterprise where a multitude of ideas compete, and conceptualizing the role of the civilian strategist as the producers of ideas within this policy realm.

For scholars of foreign and security policy, problematizing the role of experts and their ideas is well-trodden ground as the issue of ideas in policy-making has long been a crucial point in the debate between reflexivist and rationalist-materialist explanations of bureaucratic politics. While rationalists regard ideas as epiphenomenal, hard-to measure variables, cases supporting the reflexivist argument often feature crisis events after which new ideas swept away old policy ideas and material interests alike, the epitome being the rise of Keynesianism after World War II. But unlike economic policy, national security, the setting for deterrence theory, appears to be a “hard case” for theorizing as there seems to be little or no room for ideas in determining policies that are designed to further the national interest. National security seems bureaucratic, materialist, rational and interest-based, making it a difficult case for ideational theory application.

Yet the field of deterrence strategy and theory offers an interesting exception. Faced with the perceived policy vacuum the development of nuclear weapons ushered in the early Cold War, the US military turned to civilian scientists for answers. These experts, who later became known as “defense rationalists”, were employed to construct policies that were previously the exclusive domain of soldiers. Thus, paradoxically, key ideas in this particular policy field originated from outsiders who were themselves incapable of performing the military operations they sought to analyze and theorize. Defense rationalists vocally relied on the authority of the scientific method in lieu of practical knowledge and figured prominently in the development of the Air Force’s Strategic Air Command’s (SAC) Cold War strategies, proposing concepts that form the backbone of deterrence theorizing to this day. Nuclear deterrence as conceptualized by defense rationalists gradually became synonymous with nuclear strategy making, and it left a lasting influence both on policy and theory.

What makes defense rationalists and their ideas exceptionally interesting for the above theoretical debate about the role of ideas is just how lasting and all-pervasive their influence has been—despite the specificity and technicality of their original field of research (nuclear strategy), and the paradoxical “those who don’t theorize” relationship between analyst and object of study. A cursory survey of contemporary deterrence theory and policy already attests to this exceptional influence. Despite convincing arguments about the theory’s anachronism in the post-Cold War world, its ideological roots (Klein, 1994), and even its gender bias (Caldicott, 1986; Cohn, 1987), deterrence theory’s logic is not subject to serious criticism. Debates are self-referential, conceptual conflicts are recreated, outside criticism is

marginalized as non-scientific, and contemporary “re-thinkers” of deterrence “refine” basic ideas rather than exceeding them.³

But the prevalence of Cold War deterrence thinking is not confined to university halls and academic conferences: it could be found at the negotiating table for the New START treaty and in the *Nuclear Posture Review* of the Obama administration, lending these old ideas continued policy relevance (United States Department of Defense, 2010a). Yet the story is not just about the use of concepts: as part of the policy-making tradition in the US dating back to the McNamara years, defense rationalist modes of reasoning also have influenced how American decision-makers construct policies and how they evaluate them in practically all policy fields from urban planning to energy policy.

Meanwhile, the methods developed (or improved) at the RAND Corporation and similar research institution, most importantly game theory and systems analysis, contributed to the general “scientific revolution” first in economics and subsequently in the wider social sciences (Amadae, 2003). International Relations (IR) is no exception: interdisciplinary conceptual contaminations such as “games”, “rationality”, “self-interest” and “utility maximization” are the buzz words of the discipline. Method and language, with all their implications, also seem to be the key to defense rationalist legacy.⁴ But what exactly explains the longevity of defense rationalist ideas?

³ Apart from cyberdeterrence, the most prevalent examples for this trend are the predominantly realist literature on deterring rogue states and terrorists (Levi, 2004) and the treatment of the missile defense debate (Glaser & Fetter, 2001).

⁴ Defense rationalist influence does not stop at policy and academia. Charged with tackling the most fundamental, existential question of the Cold War, nuclear war, “the Unthinkable”, defense rationalists, the “priests” of the arcane art of nuclear mass destruction, quickly got the attention of the media and the general public. Their secrecy, exclusive jargon and occasional arrogance just reinforced their appeal. Defense rationalist works written for the general public became bestsellers (Kahn, 1960), the “suave young men” of RAND were featured in major news outlets (“Valuable Batch of Brains: An Odd Little Company Called RAND Plays a Role in U.S. Defense,” 1959), and the “Bland Corporation” was forever immortalized in Stanley Kubrick’s (1964) cinematic masterpiece, *Dr. Strangelove*.

The apparent commonsensibility of deterrence theory and the paradigmatic omnipresence of its scientific foundations make a critical investigation of the origins and influence of defense rationalist thought problematic. As Bradley Klein (1994) observes, attacking deterrence theory seems like an attack on common sense itself. Even if we bracketed the commonsensical appeal, reifying deterrence as the covering law of nuclear conflict, and accepting established problems of the debate as starting points for criticism still would not enable us to overcome the mode of reasoning inherent to the theory, and would simply leave analysts with an observation of why particular ideas *within* defense rationalism survive. But, as I suggest, by tracing the problems of defense rationalism to its initial institutionalization through intellectual centers such as the RAND Corporation, and *not* to deterrence theory's big debates, attention can be drawn to the idiosyncrasy and historical contingency of defense rationalist thought, with the pivotal question being how a novel and highly abstract approach with often arrogant claims to scientific authority could overturn the heavily institutionalized, experience-rooted practices of the US Air Force. Put differently: what made abstract defense rationalist ideas "sound right" to veterans of World War II? Why did rigid military institutions adopt outsider ideas uttered in the abstract language of science, so alien to the military world?

This issue of contingent persuasiveness is critical to understanding both the genesis of defense rationalism, and also its problematic claims to universality. For instance, even though deterrence theory seems sound, the mere presence of nuclear weapons does not necessitate the strategy of nuclear deterrence, or at the very least, not necessarily along the ideas devised by defense rationalism. Two understanding of nuclear strategy external to

deterrence theory, preventive war and disarmament—both discredited by defense rationalism as irrational—present viable counterfactuals against this claim.⁵

Once we return to the first two decades of the Cold War, to the birth and institutionalization of defense rationalism, the naturality of its core concepts immediately becomes suspect. Indeed, one of the puzzling aspects of the conceptual history of defense rationalism stems from this institutional context: the initial marriage of the two traditions—military and scientific—was not without conflict, and these conflicts rarely ended with a scientific victory. Curiously though, historical accounts still often glorify defense rationalism as the triumph of modern science over rigid military dogma, without problematizing the persuasiveness of its claims to authority over military strategy-making. But if we take RAND as an example for a defense rationalist hub supplying policy *solutions*, the extent of dismissive behavior on behalf of the military patron is striking, and seems to run against defense rationalists’ assumed influence on Cold War strategy. Nuclear weapons were where the money was, and, to twist the classic line, the services wanted “more buck for their bang”. If defense rationalists could not supply ideas that supported Air Force goals, the future “whiz kids” were often pushed aside.⁶ So the question then becomes: if the group of idea carriers was unsuccessful in standard policy terms, then why have their methods and language so

⁵ By now the popularity and paradigmatic dominance of defense rationalism naturalized the assumption that deterrence as conceptualized by defense rationalists was the only possible—and successful—theory/policy of nuclear conflict. The two plausible counterfactuals based on real-life policy alternatives to deterrence I mention are a preventive/preemptive strike against the Soviet Union as promoted by the US Air Force in the early Cold War (see Freedman, 1986; Trachtenberg, 1988), or disarmament in one form or another, promoted by factions within the elite, but also by civil organizations (Tannenwald, 2005b). The availability of these alternatives at various points in time further highlights the historical contingency of defense rationalist thought. Once deterrence as theorized by defense rationalism became the norm, these alternatives were crowded out for the better part of the Cold War, only surfacing with Star Wars (prevention) and the global antinuclear movement which included the famous pastoral letter of the US Catholic Bishops (United States Conference of Catholic Bishops, 1983).

⁶ The apparent gap between defense rationalist fame and influence (understood as policy advocacy) differs from instances where intellectual works were “rediscovered” by future generations: nuclear strategists like Albert Wohlstetter or Bernard Brodie. RAND and its staff were both famous and infamous during the Cold War, as symbols of the “military-industrial complex”.

widely proliferated? If proliferation was due to strategic use, then why did the ideas remain central to the policy discourse even after supporting interests dissipated?

Seeing the root of the longevity of defense rationalist thought in its initial institutionalization in the early Cold War (1948-1963)⁷, this dissertation problematizes the selection and subsequent institutionalization of these ideas, seemingly alien to the military mindset. In light of defense rationalism's lasting influence, and the problematic persuasiveness of its early manifestations vis-à-vis a military patron, I pose the central research question as: *What explains the initial successful institutionalization of defense rationalism?*

In order to avoid the pitfalls of existing rational and reflectivist approaches, the dissertation explains the selection of ideas for policy use through the concept of persuasiveness. Persuasive ideas are not merely intellectually compelling, but also fit with existing policy problems, ideas, and the general policy environment. From a discursive point of view, this entails a correspondence between the new idea and existing discourses dominating the policy issue. Persuasive ideas are “picked up” and re(con)textualized by other actors in the policy field, which leads to their gradual discursive dominance. If an idea dominates the policy discourse, it is more likely to serve as the basis of institutions. Using this conceptual base, the dissertation then historicizes the persuasiveness of defense rationalist ideas through three case studies. These cases, each organized around a key RAND project, seek to show that the persuasiveness of defense rationalist ideas was historically contingent and was far from automatic. Their eventual success was not necessarily due to their

⁷ Any periodization of the complex series of events that we refer to as the Cold War is necessarily arbitrary. In this dissertation, the analyzed “early period” extends from the foundation of the RAND Corporation in 1948, to the years of the Kennedy presidency (ending in 1963) when defense rationalist ideas and methods proliferated across American public policy-making, starting with the Pentagon under Secretary of Defense Robert S. McNamara.

correspondence to scientific standards—establishing the persuasiveness of these ideas involved a series of discursive moves on the side of their carriers which not always had to do with the scientificity of the expert's claims, but more with the specificities of the policy context. Historicizing defense rationalism in this fashion leads to questioning the universality of the ideas it produced (with a special emphasis on deterrence), as historicizing the taken-for-granted by definition leads to its denaturalization, to the claim that what is now objective might not have been so historically. The argument that no claim is universal is a truism of modern social science, and this has to be the case with defense rationalism as well. What this historical approach offers is an answer to the more crucial question of why certain ideas are selected for policy use, and not others—what makes one claim more persuasive than another?

Theoretical framework

Undeniably, the existing literature on defense rationalists and theories of nuclear war is already extensive, and existing works can supply tentative answers to some aspects of the research question. Generally, accounts of Cold War US nuclear strategy-making and/or defense rationalism either approach deterrence theory from the point of view of the theorists and their ideas, or they chart a broader, sociological narrative of the evolution of the “American way of policy-making”. The first branch makes the claim that defense rationalists were exceptionally skilled individuals who came at the right time with the right ideas and “discovered” the laws of deterrence. Common in these works is the way they depict nuclear strategy-making as a policy field of scientific innovation, a land of geniuses and their noble struggle against a dogmatic and ignorant military. Idea persuasiveness here results from the scientific quality of the idea and the scientific authority its originator. The second group of

works sees defense rationalism as an evolutionary next step in the development of the American way of approaching policy problems—i.e. the ahistorical and apolitical use of scientific tools to approach policy problems pragmatically. These analyses argue that defense rationalism successfully incorporated and communicated key elements of the American “national ideology”, which then explains its success and the longevity of policy beliefs based upon it. Both streams of the literature present important elements of the nature of defense rationalist influence, yet they only offer partial answers. For the sake of the dissertation, I refer to the first approach as the “geniuses thesis”, while I call the second “grand narratives”. These two implicitly mirror the agency-structure divide within International Relations which structures the theoretical discussion of the dissertation where I take issue with both narratives.

In structuring the theoretical framework of the dissertation, I depart from an ontology that sees policy-making as a discursive environment where a multitude of ideas compete. Ideas that form the basis of actual policies are selected based on their persuasiveness for policymakers: key actors either fully internalize these ideas, or they use them strategically. Persuasiveness is always relative and relational—it can only be interpreted in a matrix of existing ideas, policies, bureaucratic practices and the general policy environment. Within this ontology, defense rationalists are understood as a particular group of intellectuals with specialized knowledge, engaged with assigning meaning to the Cold War nuclear confrontation in terms of general strategy as well as specific policies such as force deployment. As intellectuals, defense rationalists had direct institutional access to policy-making and relied primarily on their authority as *rational* and *objective* scientists when navigating the policy nexus, while their policy suggestions manifested in their expert ideas.

By pointing out the conceptual weaknesses of agential, structural and practice-driven approaches in IR, I offer a synthesis under the meta-theoretical umbrella of interpretivism (as theorized by British political philosopher Mark Bevir), using its conceptual triptych of beliefs, traditions and dilemmas. Interpretivism offers a humanistic approach to policy-making that successfully integrates structural elements through the concept of traditions. According to interpretivism, all agency is situated: individuals take actions that are guided by their beliefs about the world which are conditioned by their environment, conceptualized as a web of meanings. Traditions represent the structural element of beliefs: they guide individual action, and are intersubjectively shared among actors. Dilemmas on the other hand represent instances where available traditions are under stress, inviting reflexive agents to transform or even abandon these, depending on their interpretation of the dilemma. Put differently, traditions and dilemmas contribute to the context in which ideas compete, and idea persuasiveness in turn has to be established vis-à-vis this primarily discursive environment.

Formal and informal institutions are essential components of the bureaucratic environment that policy experts need to navigate. In order to address interpretivism's self-confessed lack of a theory of institutions I introduce discursive institutionalism (DI) as an interpretive bridge between narrowly agency/structure-centric approaches, one that is able to accommodate expert ideational influence in its understanding of policy-making. Unlike traditional new institutionalisms, DI understands institutions as context: policy is not just about the ideas and the texts that carry them, but also about the institutional context that shapes their dissemination via discourse. Institutions are then simultaneously structures and constructs internal to agents whose "background ideational abilities" (akin to traditions) within a given meaning context explain how institutions are created and exist, as actors use these abilities to make sense of the world and act upon it. "Foreground discursive abilities" in

turn explain how institutions themselves change and persist. Translated to the vocabulary of interpretivism, foreground discursive abilities manifest themselves in discursive strategies, ways in which agents “seek to frame and present particular themes, issues and arguments with a view to shaping the context of political debate in a manner that is considered to be most conducive to the attainment of their objectives” (Kettell, 2012, p. 3).

The two approaches combined form the meta-theoretical basis for the micro-theory of ideational influence that I propose. This theory of persuasion that I call contextual suasion links the agency concept embedded in interpretivism, and discursive institutionalism’s concept of structure through a mechanism of idea dissemination via textualization and re(con)textualization. It understands persuasion as a correspondence between idea and its environment—a correspondence that is not necessarily static, but can be manipulated. The more an idea is in line with its context—a composite of traditions, beliefs about interests, other ideas etc.—the more it “sounds right” to audiences, and is more likely to be accepted either as an internalized belief or as a strategic tool. Crucially, contextual suasion shows that persuasion entails both a passive (structural), and an active (agential) element. Since persuasiveness is understood as a correspondence between idea and context, an idea may be persuasive from its initial introduction on. This implies that successful ideas can be successful purely because they successfully incorporate certain shared elements of their context. Put in rhetorical terms, this suggests that an actor’s ability to persuade its audience may have little to do with his or her ability as a speaker: the text that transmits the idea may initially hold the necessary contextual links for successful persuasion.

Nevertheless, persuasion is not necessarily a mere catering to context/audience: it can be used to change said context: conscious reflexive agents that are aware of their context

can shape an idea's persuasiveness by employing their foreground discursive abilities. Actively molding persuasiveness in terms of policy-making can then be used to either change or uphold policies and institutions. In this latter sense, contextual suasion is akin to rhetorical argumentation as it involves a strong choice element. These choices are important precisely because of the aforementioned passive element of persuasiveness: the actor's ability to persuade its audience may have little to do with foreground discursive abilities. The non-passive (non-correspondence) version of persuasion therefore should not be outcome-based but should involve the assessment of the choice of rhetorical elements made by the speaker. These can range from genre to intertextual and interdiscursive references, or even tone.

Through all these elements, the theoretical framework proposed in this dissertation to examine the influence and longevity of defense rationalist ideas offers a number of contributions and challenges to the existing literature. First, it furthers the debate between reflexivism and materialism by presenting a powerful hard case for showing idea influence. Secondly, and in connection with the previous point about sticky institutions, the dissertation contributes to the revision of new institutionalist approaches to ideas and change. Third, through discursive institutionalism, the dissertation provides the missing link between interpretivism and institutionalism. Finally, the dissertation continues theoretical and empirical work on interpretivism and discursive institutionalism by applying contextual suasion on three case studies.

Structure

The dissertation is organized into two parts. Part I deals with developing the theoretical framework and is composed of three chapters. Chapter 1 reviews the existing literature on

defense rationalist influence which I group along the aforementioned geniuses thesis and grand narratives divide. As this categorization mirrors the agency-structure, these two streams of works will be used to provide tentative hypotheses for my review of the theoretical literature on the role of expert ideas. Accordingly, the chapter engages two key approaches within the reflexivist literature: new institutionalism, a structuralist take on ideas, and epistemic communities, an agential approach that exemplifies thin constructivism. Using this review of competing approaches, the chapter will identify persuasiveness as the central problem of assessing ideational influence.

Chapter 2 re-engages the existing literature through the problem of persuasiveness. It departs from Vincent Pouliot's methodological writing on "subjectivism" (Pouliot, 2007) that mirrors the problems I will identify with the existing ideational literature in Chapter 1. The chapter then offers a critique of the practice turn in IR that seeks to transplant subjectivist tenets into ontological and epistemological terms. Based on this criticism I then offer ways of synthesis between agential and structural approaches via the tenets of (British) interpretivism (Bevir, Daddow, & Hall, 2013; Bevir & Rhodes, 2005a, 2010; Bevir, 2000), and discursive institutionalism. Discursive institutionalism, the new interpretive branch of new institutionalism, will supply the missing theory of institutions in interpretivism. These two combined form the meta-theoretical basis for a micro-theory of ideational influence that the next chapter introduces.

Chapter 3 offers my theoretical contribution: a micro-theory of ideational influence which I call *contextual suasion*. Contextual suasion links the agency concept of interpretivism with discursive institutionalism's concept of structure (i.e. institutions) through an operationalizable mechanism of idea influence. Within contextual suasion, persuasion can

be understood as a correspondence between idea and its environment—the more an idea fits with its context, the more it “sounds right” to audiences, and is more likely to become part of the discourse. Part I concludes with a brief section that offers a series of conclusions, as well as theoretical contributions to ongoing conceptual debates.

Part II of the dissertation (Chapters 4-7) is devoted to the empirical application of contextual suasion. For the purposes of this dissertation, I have selected three landmark RAND projects that exemplify defense rationalism’s “science of warfare” and reflect three different outcomes of persuasion—each originally presented as a defense rationalist solution to a dilemma that the Air Force was facing. In its introductory section I discuss case selection in detail. Before moving onto the cases, Chapter 4 offers an overview of key elements of the policy context that defense rationalists needed to navigate, ranging from presidential policies to military structures, interservice rivalries and competing traditions of the two main players: the RAND Corporation and the US Air Force. This overview serves the purpose of situation the three case studies.

Chapter 5, “Bombers” discusses the fate of the 1950 so-called bombing as an example of failed persuasion. Charged with devising a bombing strategy for the Air Force, RAND engaged in a massive, ambitious project, using newly developed methods, such as systems analysis and gaming simulations. Despite the sound scientific basis of the project, however, recommendations were completely scrapped by the Air Force.

Chapter 6, “Bombers” deals with RAND’s famous 1953 Base Study (or Vulnerability Study, as its 1954 iteration is also known), representing a case of automatic (passive) persuasiveness. Charged with devising a base system for the Air Force, defense rationalists at RAND instead assessed existing basing policies and came up with a striking

revelation about their vulnerability to a Soviet sneak attack. The study's conclusions shocked the Air Force and catapulted vulnerability into the center of the intra-service discourse. Curiously however, the actual policy recommendations of the study were only minimally followed.

Chapter 7, "Cities" finally deals with the so-called counterforce debate at the turn of the 1950s/1960s. Counterforce, the idea of attacking enemy forces as opposed to cities was offered by RAND's defense rationalists as a conceptual answer to the US Navy's Polaris submarine system and its theoretical underpinning, minimum deterrence. The Polaris program therefore represented a multi-faceted dilemma to the Air Force—a dilemma that the service could not deal with its own. Though a success with various audiences, counterforce was not adopted verbatim by the Air Force or others in the wide discourse coalition that evolved around it: the original defense rationalist idea was reconceptualized and recontextualized in several iterations. Counterforce therefore represents a case where an idea's persuasion had to be consciously established through a sequence or (re)textualization by key idea carriers (both its originators and its military and political proponents) within an ever-changing policy environment. Finally, the dissertation offers a reiteration of the argument and a summary of empirical findings in the concluding section.

PART I: THEORY

Chapter 1: From historical narratives to theorizing ideational policy influence

Policy experts are intellectuals with highly specialized knowledge relevant to a particular policy field. They are called upon to guide policy decisions with their counsel, not to take those decisions. The expert, through his/her ideas, thereby gains the possibility to influence the policy process at various stages, from problem construction to policy-making and implementation. Scientist-cum-experts form a special subset within this group as their bureaucratic authority is derived almost entirely from their scientific knowledge, proxied by their standing within the scientific community—an apolitical “ranking” external to the policy process which is assumed to be based on a rigorous and objective selection mechanism that evaluates academic output exclusively. Scientific output in turn is imbued with the traditional Enlightenment authority of science as the objective, rational lens to view the world. Therefore, the scientist-expert, the vetted originator and carrier of such specialized knowledge, gains social capital outside of the policy process, which however, still transfers to the realm of policy since scientific knowledge was the reason for the expert’s involvement in the policy cycle in the first place.

Defense rationalists as scientists *and* policy experts constitute a subset of this category. Their centrality not only to deterrence thinking and Cold War US nuclear policy, but also IR at large is unquestionable. This centrality, combined with a considerable overlap

between the development of IR and defense rationalism—with IR scholars constantly assessing the “hot topic” of the Cold War: nuclear deterrence—grounded an extensive historical literature that deals with these specific scholars. These historical works deal with the conceptual history of deterrence-as-IR, the history of deterrence-as-policy, and also with the history of the group of deterrence theorists and their central institutions, such as the RAND Corporation. This variety of approaches has not led to a conceptual cacophony, however. As I have already discussed in the introduction of this dissertation, works in this category can be grouped into two distinct categories: they either approach deterrence theory from the point of view of the theorists and their ideas (the “geniuses thesis”), or they chart a broader, sociological narrative for the evolution of the “American way of policy-making” (“grand narratives”).

This distinction between the geniuses narrative and grand narratives, I argue, also makes sense from the theoretical point of view, and can contribute to my review of the theoretical literature on expert idea influence. The two branches of the literature namely implicitly mirror positions that roughly correspond to opposite sides of the agency vs. structure divide.⁸ This debate, similarly to its materialist-reflexivist cousin, has arguably been both over-analyzed and turned into a largely empty metaphor for IR’s fourth “great debate” (S. Smith, 2007). But my goal here is not to contribute to its—perhaps impossible—resolution. Rather, I will mobilize hypotheses (loosely understood) from this literature later in this introductory section to guide my initial survey of the theoretical literature.⁹

⁸ See e.g. Bieler, 2001; Carlsnaes, 1992; Dessler, 1999; Wendt, 1987.

⁹ For more on using pre-existing narratives to theorize foreign policy-making, see Guzzini, 2013.

1.1. Geniuses and grand narratives: A brief literature review

1.1.1. *A small group of men: The geniuses thesis*

The branch of the literature I call the geniuses thesis mainly consists of organizational histories of RAND and/or histories of defense rationalism¹⁰, personal histories of key figures in the strategy-making process¹¹, the history and analysis of ideas of strategy¹², case studies of military policy-making¹³, analyses of the complex relationship between science, the military and Cold War politics¹⁴, and also the popular representation of the defense rationalist group.¹⁵

They can best be summarized by a quote from historian Marc Trachtenberg:

A small group of men—Bernard Brodie, Thomas Schelling, Albert Wohlstetter, and a handful of others—working mainly at the RAND Corporation, had moved into an intellectually barren ‘no-man’s land’ traditionally neglected by both military officers and students of international politics. Their ideas would prove to be enormously influential, and their style of analysis in large measure became the sophisticated way of approaching nuclear issues in the United States. (Trachtenberg, 1989, p. 301, emphasis added)

Proponents of this line of reasoning share three basic assumptions: first, that the nuclear age is unique, and technological developments, such as nuclear weapons and ballistic missiles, introduced a revolution¹⁶ in military affairs (Aron, 1965; Brodie, 1946; etc.), leading to a

¹⁰ Campbell, 2004; Collins, 2002; Digby, 1989; Freedman, 1986; Herken, 1980, 1987; Jardini, 1996; Kaplan, 1983; Long, 2008; May, 1998; Rocco, 2008; B. L. R. Smith, 1966; Specht, 1960.

¹¹ Coffey, 1986; Ghamari-Tabrizi, 2005; LeMay & Kantor, 1965; Sent, 2006; Wohlstetter, 2010.

¹² Freedman 1986; Powell 1985; Marc Trachtenberg 1991 and many-many more.

¹³ Ball & Toth, 1990; Ball, 1980; Rosenberg, 1983; Spinardi, 1994.

¹⁴ Geiger, 1992; Hounshell, 2001; Reisch, 2005; Robin, 2001; Roland, 1985; B. L. R. Smith, 1990; Solovey, 2001; van Keuren, 2001.

¹⁵ Though the majority of authors subscribe to the view that defense rationalists had crucial influence on nuclear policies, some offer a more cynical view wherein strategists’ ideas are subdued by organizational interests. See esp. Rosenberg (1983).

¹⁶ The “thermonuclear revolution” thesis states that even after the development of the *atomic* bomb, questions of mobilization, accuracy and classical strategic thinking were still important due to the low number of bombs, their limited yield and the fact that they could only be delivered by bombers. *Thermonuclear* weapons (hydrogen bombs) developed in 1953 mark the true turning point. The destructive potential of these weapons alone, the argument goes, made it impossible to see thermonuclear war as a continuation of politics with different means—it made war “unthinkable”, and put deterrence at the center of *nuclear* strategy. As a side-effect, the revolution

corresponding policy vacuum in strategy-making. The argument first appeared in Bernard Brodie's writing who, in his *Layman's Guide to Naval Warfare* argued that it is very rare that a military innovation renders existing technology obsolete (Brodie, 1942). When change comes, it is best when it is unequivocal. In *The Absolute Weapon* (1946) he later argued that the atomic bomb represents such a change (his choice of title for the book—a reference to Clausewitz's idea of absolute war—reflected his belief in a nuclear revolution). When others claimed that the destructiveness of the bomb would result in bigger armies, Brodie stated that “The atomic bomb is not just another and more destructive weapon to be added to an already long list [of weapons]. It is something which threatens to make the rest of the list relatively unimportant” (quoted in Herken, 1987, p. 8).¹⁷

Second, authors argue that the US military was unable to fill this policy vacuum ushered by new technology, since the nuclear revolution had rendered pre-nuclear ideas obsolete. Finally, scholars hold that this revolution coincided with the outbreak of the Cold War, a conflict that structured new ideas that were meant to fill the vacuum. Though prior military thinking—tested during the bombing campaigns of WWII—prevailed in the initial years of the Cold War, the end of nuclear unipolarity, the first Berlin Crisis, and mass-production of nuclear weapons and carriers eventually turned these not only obsolete, but suicidal, leading to a true—i.e. widely perceived—vacuum. This is the point when civilian scientists (the geniuses), previously only working in engineering projects, finally got the limelight in military policy circles as the Armed Forces, most notably the US Air Force turned

made military experience truly irrelevant, as “thinking about the unthinkable” became an area of civilian expertise (Aron, 1965; George & Smoke, 1974, pp. 20–21; Hacker, 2007; Trachtenberg, 1989).

¹⁷ *The Absolute Weapon* is the first comprehensive treatise of nuclear deterrence. In it Brodie argued that the destructiveness of the bomb not only made it a decisive weapon in attack, but also an inhibitor of aggression, a deterrent. He suggested that the traditional Clausewitzian *Ziel* of war, defeating the enemy, should be supplanted with the goal of preventing war in the first place: “thus far the chief purpose of our military establishment has been to win wars. From now on its chief purpose must be to avert them. It can have no other useful purpose” (Brodie, 1946, p. 76).

to them for policy answers. Due to the Air Force's centrality in the bureaucracy, as well as the think tank's unique institutional characteristics, RAND became the epitome of civilian strategic research with its "university-like halls" (May, 1998). It was a "pioneering and probably the most successful think tank" (Hounshell, 1997), the "Cold War *avant garde*" (Ghamari-Tabrizi, 2000). RAND's organizational philosophy, funding, the academic freedom of its analysts—i.e. the freedom to publish and pick their own topics—their access to classified information all elevated the think tank above its competitors and turned it into a prestigious forum for defense rationalists. The theoretical "solution" of the Cold War strategic conundrum was mostly developed there, culminating in a particular understanding of nuclear deterrence that built on cutting-edge research methods, such as rational choice theory, systems analysis and linear programming. The new approach essentially turned to Cold War military antagonism into a nuclear conflict, which led to new thinking and new strategies—the "the generation of knowledge" (Hounshell, 1997)—and policy methods that transformed US policy-making across policy areas.

By now, it has probably become apparent to the reader just how central the RAND Corporation is to the geniuses narrative, both in terms of its impact on deterrence theory, and on public policy-making in general. As J. A. Smith notes,

In fact RAND and think tank are virtually synonymous (...) RAND became the prototype for a method of organizing and financing research, development and technical evaluation that would be done at the behest of government agencies, but carried out by privately run nonprofit research centers (...) the RAND model flourished in the 1950s, spinning off competitors and causing the other military branches to set up similar units. Such groups as the Mitre Corporation, the Systems Development Corporation, Analytic Services, the Center for Naval Analyses, the research analysis Corporation, and the Institute for Defense Analyses have given military planners routine and sustained access to researchers with advanced scientific and technical skills. (J. A. Smith, 1991, pp. 115–116)

So why was RAND unique and how was it possible that such an institution could fit into the rigid military bureaucracy? Here the literature emphasizes the favorable environment of postwar US science policy, once again turning to the role of outstanding individuals that enabled a postwar science policy that was favorable to the freedom of scientific inquiry, basic research, and civilian-military cooperation. The first Chief of Staff (CoS) of the US Air Force, General Henry “Hap” Arnold, and the politician who rewrote legislation on science, Senator Vannevar Bush; are therefore frequently presented as “visionaries”, outstanding, charismatic individuals who carried and pushed through the reforms of the postwar year (Jardini, 1996; Kaplan, 1983; May, 1998). The environment created by these individuals enabled the creation of RAND, the quintessential Cold War think tank. (For more on the postwar institutional framework, see section 4.1 of this dissertation).

Though all other services created their own institutes, these could not enjoy RAND-level success since they lacked the permissive credo that let the “geniuses” think and work free of bureaucratic pressures. Due to the strict control of their military patrons, these institutes could not attract the great minds of people like John von Neumann, Thomas Schelling or John Nash—at least until they copied RAND’s organizational structure and methods verbatim. This rather simplistic presentation of scientific integrity and autonomy underplays the limits of military patronage—though RAND’s falling out with the Air Force is addressed in detail—and culminates into a measure of expert success in terms of activity: innovative thinking, reformulation of policy research.

Within the geniuses narrative, defense rationalists created the ideas that rewrote strategic thinking, and the organizational philosophy of RAND was essential to their work. Actors and their stage, or, to use the topical metaphor, nuclear priests and their Church (Cohn,

1987, p. 702; Hilgartner, Bell, & O'Connor, 1982) are inseparable, and essential to the story. In the postwar political environment, science was yet another resource mobilized for national defense: with its institutionalization, scientific advice became one of multiple available approaches to national security policy. Here, a *scientific* approach to nuclear strategy that defense rationalists advocated (Brodie, 1949, p. 468) proved to be triumphant over alternatives not necessarily because of a special status of science—though proponents of the “geniuses thesis” certainly subscribe to the superiority of science over military/political experience and intuition—but because of the skills and ambitions of the scientists: they were simply smarter than everyone else in the room and could therefore *uncover* the laws of nuclear conflict.

Within the above works on defense rationalism, the ideas developed by these highly trained intellectuals are presented as *the best possible* answer to a completely novel, *nuclear* question. Due to the perceived policy vacuum, military know-how could be presented as irrelevant, further strengthening authority of the “science of warfare” and enabling defense rationalists to overcome bureaucratic opposition, and to eventually dominate the deterrence discourse by the end of the 1950s.¹⁸ Success, according to the narrative, was due to the superiority (scientificity) of the arguments—which derives from the special skills and epistemic background of the scientist—and their correspondence of their ideas to the Cold War strategic environment, which, in this interpretation, strategists “analyzed” and “explained”, but did not help create. As Marc Trachtenberg puts it:

¹⁸ Brodie notes that “the famous apothegm of Clemenceau that war was too important to be left to generals, has often been expressed by soldiers themselves. It is not imply that the waging of war or the preparation for it requires many skills to which the soldier makes no pretentions. It is that the skill which is peculiarly his own is in all but the rarest instances incomplete with respect to one of its fundamentals—a genuine understanding of military strategy” (Brodie, 1949, p. 467).

what [economists and other experts working on strategy] had was something very general, a way of approaching issues, rather than anything that in itself suggested substantive answers that went right to the heart of the strategic problem. But this meant that a constituency existed (...) for ideas from economics that would have some substantive bearing on the very new problems of strategy that were to emerge in the 1950s. (Trachtenberg, 1989, p. 309)

Despite Trachtenberg's emphasis on the importance of a proper, receptive audience (constituency), the nature of this type of science, and the reasons for its persuasiveness (i.e. its superiority) remain unproblematized/assumed. Since defense rationalist ideas are treated as the best possible answer to an objective problem (they describe and explain the real world dynamics of deterrence), works of the literature debate and evaluate the adequateness of strategic ideas, such as counterforce, escalation dominance, second strike deterrence and many more. Analyses address adequacy with regards to an "objective" security environment, but not the internal logic (i.e. the underlying principles) of these strategic ideas, or deterrence as an idea/policy itself. Studies underplay the *context* of the ideas and/or equate it with the strategic environment for correspondence, resulting in a narrative where strategists educated a rigid military bureaucracy how to "run" the Cold War properly, and the military simply "realized" the adequacy of these ideas in the face of overwhelming scientific evidence. Here once again, the non-event of nuclear war is used retroactively to legitimate deterrence theory: there was no nuclear war between the superpowers, so deterrence works both as policy and scientific theory.

As it is common to mainstream strategic studies—a sub-discipline that greatly benefited from defense rationalism (see esp. Klein, 1994)—there is an underlying assumption at work here that makes an objective evaluation of strategic ideas possible. It states that security has both a subjective (fear) and an objective (threat) element—an idea that dates back to Thucydides' analysis of the Peloponnesian War (Thucydides, 1960)—that the analyst can

differentiate between. This often implicit assumption makes it possible to evaluate the adequacy of strategic ideas—and policies—in terms of their correspondence to both the perceived (inter/subjective) and the “real” security environment. Deterrence strategies are presented as the output of constant deliberation within the strategist community, addressing an ever changing military-political environment (often in opposition to official doctrines). Consequently, the critique of massive retaliation, the misinterpretation of the “missile gap”, and the blunder in Vietnam, for example, are often in the focus of these analyses. In sum, deterrence is seen as a theory evolving in linear approximation to the Cold War reality (see Kratochwil, 2011). Success/influence here is attributed to scientific arguments raised by a small group of highly intelligent people, and the latter factor is attested by their fame and legacy, as works along this narrative often turn into entertaining stories of the underdog genius struggling against a dogmatic military establishment (Abella, 2008; Ghamari-Tabrizi, 2005; Kaplan, 1983; McDermott, 1971; J. Wohlstetter, 2010).

In sum, the geniuses thesis paints a colorful picture of a group of extremely skilled individuals who, against all odds, could persuade a doctrinal military establishment to adjust defense strategies to the requirements of the nuclear age—an era that defied all pre-existing knowledge, and, due to certain key characteristics, opened the door for abstract, deductive science to fill the void. Put simply, nuclear weapons were too complex, too novel and plainly too dangerous to allow the “muddling through” of traditional policy-making. Science on the other hand could not only chart the laws governing this new world, but could also provide answers to how to govern it—how to “tame the nuclear genie”. Thus, from a theoretical point of view, these accounts bracket context through the nuclear revolution thesis—i.e. an ideational vacuum—and argue that policy had to be built up from scratch. Accordingly, they focus on the agents and trace the success of deterrence theory back to the theorist: the genius

intellectual who had the right training and the right ideas at a very dangerous moment in human history. The non-event of nuclear war is then used to reinforce this narrative: the presence of these individuals *averted* nuclear war. What these studies do not address, however, is why an outside group of laymen could sweep away decades, even centuries of military know-how, and substitute it with abstract models. Persuasiveness here is assumed—it is an inherent characteristic of the genius and his ideas—and not problematized.

So why were these ideas so readily accepted and institutionalized? At first glance, the success of defense rationalist thought is simply the function of its scientificity: since it embodies cutting-edge science, it by default trumps all other kind of policy knowledge. This authority of a particular kind of science over experience, indeed even over other forms of science, is the white spot of the narrative. The vacuum-like understanding of the nuclear revolution namely only offers an incomplete explanation: even if we assume the existence of an ideational “tabula rasa”, the question of why exactly this kind of science had to fill it is not discussed. Where the policy authority of science in the United States originates is a question of historical-sociological context. Therefore I now turn to the competing explanation of defense rationalist success, the so-called grand narratives that use sociological theorizing to account for the rise of defense rationalism.

1.1.2. The American way: Grand narratives

The branch of the literature that I call “grand narratives” is composed of a loose collection of diverse works whose unifying characteristic is their reliance on sociological theorizing. Most analyses in this group offer some form of ideational history, either that of deterrence and its roots in modern economics, or a wider, “grandier” narrative of the American policy tradition

that dates back to the industrial revolution. This latter “American way of thinking” is seen as a continuous strife to elevate reason into a sort of organizational idea for the whole of society.¹⁹ Scholars depict the American mind as obsessed with reason, equipped with a problem-solution logic of pragmatism, and the idea that science (understood as a primarily a means to solve problems, be it technical or social) can ultimately solve not just technical, but also social problems. These ideational histories are complemented by the works of strategic culture theorists who argue that a certain constellation of structural factors produce specific cultures of strategy (Gray, 1981; I. A. Johnston, 1995; Lantis, 2002).

But deterrence theory has obvious links to International Relations beyond the strategic culture school. During the Cold War, nuclear strategy became coterminous with deterrence as understood by defense rationalists, and strategy became nuclear strategy, with war avoidance as the primary directive of national defense. This close relationship between deterrence thinking and international (inter-bloc) politics naturally affected International Relations as a discipline: its most prominent thinkers during the Cold War all wrote about nuclear war and deterrence in one form or another (Mearsheimer, 1984; Quester, 1985; Snyder, 1983; Waltz, 1981, to list a few). Historians identified “generations” of nuclear strategist (Freedman, 1986), mostly active at RAND, and their public work was integrated into the strategic studies debate; with analysts like Bernard Brodie, Albert Wohlstetter or Herman Kahn serving as figureheads for the (neo)realist movement within IR. Given this close relationship between deterrence theory, defense rationalism, and the emergent discipline, it is perhaps less surprising that IR offers one of the key grand narratives for the origins of defense rationalism, and to a certain degree treats it as coterminous with (neo)realist strategic studies.

¹⁹ See esp. Bell, 1988; Commager, 1950; Dawidoff, 1984; Hoffmann, 1977; Morgenthau, 1946.

In *An American Social Science: International Relations*, Stanley Hoffman (1977) traces the origins of International Relations as a social science back to the end of WWII, mirroring the dominant origin myth of the discipline that classical realists like Morgenthau and Carr championed, which sees the birth of realism—and with it, IR—as a *scientific* criticism of the prescriptive normativity of idealism. Realism was largely the intellectual product of European émigrés, and Hoffman argues that this unique blend of disillusioned European thinking and the environment the US provided lies at the root of the new discipline. The circumstances of its birth were marked by the rise of the new superpower, a rise that was accompanied by both a renewed wave of idealism (postwar internationalism) and a revulsion/guilt about prewar US idealism and isolationism.

Within the US context, Hoffmann—relying on Morgenthau—captures the complex origins of IR in three factors: intellectual predispositions, political circumstances and institutional opportunities. The first element is what he calls—along Ralf Dahrendorf—“Applied Enlightenment”, the conviction that all problems—including social—can be solved with the scientific method, which is assumed to be value-free, and would combine empirical investigation, hypothesis formation and testing (Hoffmann, 1977, p. 45). The logic is reminiscent of Enlightenment rationalism, and is also reiterated in James Scott’s work as “high modernism”, as “the rational design of social order commensurate with the scientific understanding of natural laws” (Scott, 1998, p. 4).

What is distinctly American, Hoffmann argues, is the scope of these beliefs and their depth. Essentially, they encompass both the social and the natural world, and they go beyond the concern of problem-solving, entailing a faith in the existence of a sort of “masterkey”, an operational paradigm. Without it, there can only be muddling through, but no continuous

progress. Hoffman (1977, p. 45) terms this paradigm an American “national ideology”, which “magnifies and expands eighteen-century postulates”. There has never been an ideological contest to this paradigm in the United States, and the country’s 20th century history—economic growth, external success, social integration etc.—had reinforced faith in it.^{20,21}

Since the US national ideology encompassed both the natural and the social world, the rapid development and prestige of the natural sciences were bound to influence the social sciences as well, blurring the distinction between the two fields. At the end of WWII, a new dogma appeared, Hoffmann argues, that deemed economics as the first and only social science that met the expectations of the national ideology—the application of reason to human affairs—and thus became a model for the other social sciences, the “physics of human affairs”. The “promotion” of economics affected the other social sciences, especially political science: science became both a substitute for politics, and, by definition, a tool for its analysis.

The intellectual environment in the United States and the wave of European immigrants were a perfect match: the latter offered what the first wanted. Hoffman talks about “a remarkable chronological convergence” between the policymaker’s needs and the scholar’s performance. What the leaders were looking for was a sort of “intellectual compass” that would help them deal with the postwar/Cold War environment. It would justify US involvement in global affairs—and discredit isolationism—rationalize power maximization,

²⁰ Henry S. Commager’s Tocquevillian *The American Mind* (Commager, 1950) shares this premise, that things we know about American history and culture somehow add up to an American character and philosophy whose character “all but eludes description and [whose] philosophy definition, yet both were unmistakable” (Commager, 1950, p. 3). Commager’s central thesis states shocks (industrialization, urbanization, the Civil War etc.) experienced by the US in the 19th century led to the development of an individualist, materialist, optimistic and Darwinist American character.

²¹ The manifestations of the American national character in terms of economics and public policy are also pronounced in another famous grand narrative, Daniel Bell’s *The End of Ideology: On the Exhaustion of Political Ideas in the Fifties* (Bell, 1988). Bell discusses a wide variety of topic in this collection of essays, but here I would like to only draw attention to his treatment of Taylorism and the rise of technocracy in the 20th century US. As Bell explains, Taylor introduced science into management, exerting a sort of “social physics leading to a distinctly new approach to management which also provided a new justification for the managerial class whose old justification of “natural right” was eroding.

and underpin containment (Hoffmann, 1977, pp. 47–48). For Hoffmann, the IR branch of defense rationalism falls into this trend. Again, due to the match of supply and demand,

the attempt at finding principles for any ‘strategy of conflict’ [referring to Thomas Schelling’s (1960) book of the same title] in a nuclear world is inseparable from the tendency to devise a strategy for America, at a time when both sides had weapons of mass destruction, and when there were serious problems of alliance management, guerilla wars, or ‘wars of national liberation’. (Hoffmann, 1977, p. 48)

What is quite interesting in the shared history of IR and defense rationalism is that though Hoffmann lists Morgenthau as a primary mover for the transfer of the American national ideology to the management of international relations, Morgenthau himself was very critical of rationalism, calling it—among other things— a “modern intellectual fraud” (1946, p. 95), with proponents unable to learn from neither history (1946, p. 37) nor mistakes (1946, p. 39). But reading his 1946 *Scientific Man vs. Power Politics*, it becomes obvious that his criticism is much broader and is hence rather targeted at the American national ideology—captured under rationalism—itsself. Ever since science and politics had become coterminous in the 19th century, the scientific frontier became the only relevant frontier, diminishing the importance of other (geopolitical) borders. This led to the reduction of *political* problems to scientific ones, the technologization, technocratization and scientification of domestic politics, which is then transferred to the international arena (Morgenthau, 1946, pp. 102–103). Moreover, since science/physics is a unified field, by extension, politics can be, too, leading to the well-known search for the philosopher’s stone, the magic formula that can solve any social problem.

Thus we return back to the American national ideology: the deep belief in the problem solving qualities of science, and the conviction that science produces objective, and therefore ethically acceptable policy. Morgenthau (1946, pp. 141–145) essentially presents himself as an anti-naturalist in opposition of the American way of making social science/IR.

Ironically, however, at least in Hoffmann's interpretation, Morgenthau's criticism did not change the essence of the American national character. Instead, it introduced a series of questions about the management of global affairs that were then submitted to well-known *American* methods of problem-solving. In such a context it is therefore not surprising how successful early defense rationalism and then Waltzian neo-realism became in the wake of the behaviorist revolution: Waltz (1979) after all sought to make Morgenthau's realism more *scientific*.

The military's apparent interest in scientific policy advice forms Hoffmann's institutional element of success, charting a change from the early Cold War when academics acted as consultants for policy, and the 1960s when the McNamara revolution in policy-making introduced the expert-cum-policymaker. Yet, as I have repeatedly emphasized, it is still striking how the extensive civil penetration of military policy-making could come to be, and why defense rationalist ideas were adopted to such a large scale. The fact that outsiders, themselves incapable of performing the operations they analyzed, could have such fundamental influence on policy is truly extraordinary.

Nuclear weapons alone do not automatically determine nuclear strategy in any form. Though technology acts as a constraint on action²², ideas on strategy give meaning to capabilities, and not the other way round. Since ideas never enter the policy debate in a complete vacuum, defense rationalist ideas had to engage pre-existing ideas on military strategy in order to fulfill organizational demand. Interestingly, a considerable portion of the literature on US military traditions feeds into the above discussion on a US national ideology

²² Early ballistic missiles for example could not be used to precisely target enemy installations, but could hit large targets like cities. As a consequence, city-avoidance strategies—along with their moral implications—were dismissed by the military.

through the argument that the prudential, practical view of problem solving had an effect on “the American way of war” (see e.g. A. R. Lewis, 2007). The claim that policy can have a historically resilient national style is of course debatable, as the growing literature on strategic culture demonstrates.

Strategic culture traces national styles of strategy back to geopolitical, historical, economic and other macro factors, organizational characters of various military services (i.e. traditions), and recent conflict experience; though the precise “grab-bag” of variables and the nature of causality varies across the theory’s generations (I. A. Johnston, 1995; Lantis, 2002). This strategic culture provides the context within which strategic ideas and policies are debated. It is often emphasized that defense rationalist ideas did contribute to the development of American strategic culture, generating a novel approach to nuclear strategy (Gray, 1979, 1994). But since culture changes slowly and gradually, these ideas constantly had to relate to lasting practices embedded in “timeless tenets of war”, the peculiarities of US strategic culture or politico-strategic configuration of the Cold War. In order to persuade actors, overcome and transform biases, defense rationalist ideas had to offer better alternatives to pre-existing policy problems, and had to conform to expectations, broadly understood, within the policy discourse.

The strategic culture literature already boasts an impressive array of studies on the history of US strategic culture, mapping its relatively stable, historical-cultural aspects, and thereby enabling us to control for the influence of defense rationalist ideas. Comprehensive treatises identify a number of features that have characterized the American approach to war since the Revolution (Gray, 1981, 1994, 2006; Harris, 2009; A. R. Lewis, 2007). First, the United States follows an approach to war that Clausewitz would call “absolute”, one that aims

at annihilating the enemy's armed forces, and with it, a complete overthrow of the enemy regime—an approach best exemplified by American insistence on unconditional surrender in WWII. Since the US is a popular democracy, and therefore has a system of governance susceptible to societal pressures, the use of force is always decisively massive. With a populace that is difficult to mobilize, wars often have to have ideological overtones. Second, American strategic culture is ahistorical. One of the main tenets of US exceptionalism is the belief that the United States is the New World, a unique social experiment that is the best of all existing worlds. Consequentially, Americans have no real respect for historical expertise and a low level of tolerance for peacetime balance of power politics.

Third, the US has a pragmatic frontier culture that translates into a heavy reliance on machines. The triumph of American science has long been understood not as basic research but useful technical innovations, epitomized by WWII inventions such as the B-29 bomber or the atomic bomb. Fourth, pragmatism also translates to an “engineering approach” (Gray 1994), i.e. an obsession with reducing complex systems to a few apparently simple principles, thereby creating a strategic culture that is closer to administration than politics (cf. Bell, 1988). Fifth, American strategic culture is blind to cultural differences. Research into the strategic cultures of other states was never encouraged, and “for many years, American officials and theorists believed that they could enlighten the backward Russians with the gospel of strategic stability” (Gray, 1994, p. 594; cf. Adler, 1992; Chilton, 1985b).

Sixth, US strategic culture is also apolitical: contrary to the Clausewitzian logic, Americans do not see war as a continuation of politics, but rather as an alternative to it. The apolitical attitude contributes to the low respect for balance of power politics and the emphasis on tactics, rather than strategy. And finally, the public rhetoric of American

strategic culture also often seems aggressive, morally certain and “aggressively macho” (Weldes, 1999, pp. 42–47), reflecting a general need to “act tough” (Moss, 1985, p. 45). Such aggressive discourses are “frequent at a number of different levels of the defense establishment and (...) they suggest (...) a revised cultural primitivism used in the service of military and political policies” (Moss, 1985, p. 46).²³

Defense rationalism reflects these attributes, in both content and method/language. The Clausewitzian absolute approach to war is a prominent feature in Bernard Brodie’s writing (e.g. Brodie, 1946, 1958, 1965). Moreover, the language common to defense rationalist idea presentations is markedly male chauvinistic, as feminists demonstrate (Caldicott, 1986; Cohn, 1987). But above all else, defense rationalism reflects the engineering approach to strategy: using deductive reasoning and formal logic to simplify complex systems. With systems analysis, for example, the complex question of the arms race, “how much is enough”, actually seemed solvable. In game theoretical models, even in the very basic chicken game, the two players mirrored each other. The underlying argument was that behavior can be universally modeled based on the rational actor model, rendering cultural variables like Soviet strategic culture irrelevant. Due to their abstract, deductive nature and universalistic claims, these models were also ahistorical: cultural idiosyncracies did not figure in rational choice analysis. Since game theoretical models referred the Soviet Union and the United States as unitary actors, all games could be constructed so that the United States could “win”, i.e. simulations were always aimed at designing a winning strategy for the United States, and avoiding the question of a loss.

Thus, even though rational choice theory was heralded as the essence of a methodological revolution in the social sciences—take for example the second great debate in

²³ I have to thank Deborah Larson for bringing this point to my attention.

International Relations (Bull, 1966; Herrmann, 2002; Sanders, 2002)—due to its origins in military strategy-making, it carried the characteristics of a national ideology. Therefore, a grand narrative explanation for the influence of defense rationalism would claim that these ideas related to underlying cultural currents, transplanting a century-old logic into yet another policy field. Thus, their development is more a case of evolution than revolution. As Gray argues, the American way of strategy was not perfect, but it was still durable because it had been “sufficiently true to American culture [the national ideology] to be socially tolerable” (Gray, 1994, p. 579).

So the key to these explanations is not necessarily about the ideas exclusively. As the story of defense rationalist demonstrates, people with scientific training gained an ever increasing role in the US government (first in the military). This role was no longer restricted to technical counseling or the development of technological equipment, but also to policy advice. The cooperation between civilian advisors and the bureaucracy reached its peak during the McNamara revolution in the early 1960s, when the “whiz kids” revolutionized policy-making (Kaufmann, 1964). Beyond McNamara’s personal interest, the correspondence between defense rationalist emphasis on effective systems and the characteristics of the American style of management—best captured in the image of the manager that manipulates resources, both human and material, to achieve greater efficiency, measured in profits (Twing, 1998)—facilitated this scientist-expert incursion. In his work, the manager appeals to the ideal of effectiveness and scientific objectivity to provide him or her with authority. As such, the American style of management naturally reflects the engineering approach.

In her *Rationalizing Capitalist Democracy* Sonia Amadae (2003) further demonstrates the Hoffmannian logic of intellectual supply and demand through the case of

defense rationalism, moving beyond policy-making. She makes the claim that rational choice liberalism, a “remarkable expression of Western civilization’s ongoing fascination with reason” (Amadae, 2003, p. 6), was used to anchor American society and defeat communism during the Cold War. Faced with the threat of communism, the West, more specifically “the leader of the Free World”, needed a new theoretical basis to counterbalance and fight “the fearsome tides of organic or group theories that threatened to subsume individuals and their aspirations for freedom” (Amadae, 2003, p. 3). Thus “the self-interested, rational actor became the central figure around which the reexamination of traditional Enlightenment themes and problems of government [were] based”; enabling the reconstruction of commerce, politics, scientific inquiry, and indeed military strategy. Amadae traces the development of this new “ideology”, rational choice theory (RCT), back to defense rationalists working at the RAND Corporation, and links these ideas to broad intellectual trends in economics and liberal philosophy, claiming that they were organically linked to previous philosophies—i.e. the national ideology.

This link was crucial for the success of rational choice. As Thomas Schelling himself remarked, no one really knew whether the methods used by defense rationalists were able to achieve better decisions, but they still had theoretic legitimacy insofar as they claimed to be based on scientific analysis, and had practical legitimacy as a consequence of their repeated use (Amadae, 2003, p. 11). But for Amadae, the link is not only important in explaining the striking success of RCT in the social sciences and in policy circles. The feedback loop is equally important for her analysis, i.e. showing how RCT was used to sustain “a philosophical foundation for American capitalist democracy” (Amadae, 2003, p. 15). Again, the narrative is

about context: ideational supply meeting its demand.²⁴ The military origins of the rational choice revolution at RAND are an organic offshoot of this societal/intellectual demand in Amadae's view. The fact that rational choice was used for policy analysis that was of particular (national) interest in the early Cold War then secured the theory's continued use (see practical legitimacy), and its eventual transfer to public administration during the Kennedy years²⁵ as McNamara used the "epistemic leverage" that systems analysis and other rationalist methods provided to shift government decision-making technologies "from a legislative-democratic platform to a policy sciences model that depended on claims of objectivity and scientific rigor for its authority and legitimacy" (Amadae, 2003, p. 31). The McNamara revolution eventually secured the lasting influence of rational choice liberalism in US policy-making techniques, while its continued popularity in academic circles secures its hold on the social sciences.

Thus, within the picture that these diverse works of "grand narratives" seem to paint, European effects coupled with US intellectual traditions formed a problem-solving, particularly American approach to science that heavily reified scientific problem-solving. Defense rationalism was a natural outgrowth of this trend, and it exemplified the interdisciplinary cross-fertilization between physics and the social sciences, most notably economics and political science/IR. Therefore, defense rationalism is less the product of a revolution but an organically growing ideational position that can be traced back to structural

²⁴ Crucially, for Amadae, demand came both from policy (the military) and philosophy: Schumpeter, Hayek and Popper had already voiced a demand for a methodological basis for scientifically assaulting the philosophical underpinning of communism. Their followers, like Buchanan, Tullock, and Riker, salvaged the basic tenets of liberalism and used them as a foundation to build a social science meeting this demand.

²⁵ Amadae recognizes the importance of the McNamara years and even uses Daniel Ellsberg—the RAND analyst who moved to policy-making, and later leaked the famous Pentagon Papers (Sheehan, 1971)—as a central character in her narrative.

variables (national ideology and policy demand) that enabled the inflow of European ideas and their fusion with the above American approach, producing a new science that was still faithful to the national ideology, all despite the novelty of its object of analysis: nuclear conflict. Defense rationalism was thus a controlled leap forward to a new topic, and its influence was due to ideological familiarity and a match with structural elements, most notably policy demand.

Within this structuralist narrative, culture is a strong constraint that also constitutes successful ideas: defense rationalism could be successful because it conformed to a number of cultural topoi, and it conformed readily as it had been built on the tenets of the national ideology from the get-go. The problem here in terms of answering the central research question of this dissertation is that, theoretically, other ideas also could have been successful, especially preventive war under nuclear monopoly/superiority. In fact, another alternative, disarmament, did eventually triumph over war-fighting and now co-exists with (minimum) deterrence even though its conceptual roots can also be traced to humanist movements (full disarmament). In this sense, culture/context can only be an enabling/limiting condition: it does not preset policy, yet limits the kind of policy ideas that can develop. However, if culture is theorized as omnipresent, it does not truly explain anything. To make sense of the historical context, grand narratives need to be linked to some form of institutionalism that can explain how ideas create new institutions, and how institutions react to new ideas.

In sum, grand narratives are important for the purposes of this dissertation as they tell us a lot about the ideational-institutional context of the agency within the geniuses thesis. Taking the predominantly structural logic of these works seriously, there seems to be something distinctly American about defense rationalism. The underlying logic is a

continuation of Enlightenment rationalism, and could even be seen as the culmination of the American experiment: the logic of problem-solving science applied to a key problem of national survival, and later to all aspects of social life. The success of these ideas is not simply due to their own qualities, but to their deeper connections to their context, and specifically the American national character. As Hoffman (1977) would argue, this could happen “only in America”. Nevertheless, this narrative necessarily represents only one particular side of a much more complex story.

After this overview of the two competing narratives on defense rationalist influence, I move onto the discussion of their theoretical implications. Building on the core argument of grand narratives I will first discuss new institutionalism as the most popular ideational approach within IR, followed by a critique of agential theories that offer a more systematized understanding of the arguments underlying the geniuses thesis.

1.2. Interpreting structure: Ideas and institutions

New institutionalism is an obvious theoretical contender for answering the question why defense rationalist ideas were taken up by military institutions in the early Cold War. Not only for the approach’s obvious focus on institutions, but also because its proponents have already engaged the question of the role of ideas in policy-making and change on many occasions, and has even devoted attention to the special subset of expert ideas (e.g. Hall, 1986; Sikkink, 1991). Yet ideas are clearly a late addition to new institutionalism, and their frequent use and central role constantly raises questions about the relevance of exclusively *institutionalist* explanations, leading critics of diverse meta-theoretical conviction to argue that they merely serve the aim of “saving” a struggling research project (Bevir, Daddow, & Hall, 2012; Blyth,

1997; Jervis, 1994). Though this ad hoc, methodology-driven use of ideas in inductive theorizing has settled the rationalist-reflexivist debate on ideas in favor of the latter position (ideas *do* matter, and they do so in an institutional context), ideational scholars still owe their critics an explanation of just when and how ideas influence policy outcomes. The problems with these ideational projects can be summed up in three fundamental clusters of questions that have been raised from both sides of the aisle (Blyth, 1997; Brint, 1990; Yee, 1996):

- 1) Why are certain ideas selected to serve as the basis of policies and institutions, and not others? What is the mechanism of idea selection?
- 2) Why and how do certain ideas remain influential in the long run? How are ideas linked to certain political actors? (It is thus crucial to problematize which actors internalized or strategically used defense rationalist ideas; and how the ideas themselves became institutionalized and naturalized, enabling their longevity.)
- 3) How do ideas influence political processes? How do ideas enable shifts in policy, and how do they follow shifts in the policy environment? What specific policy options become possible under a certain policy idea? (Note that influence here is not strictly causal.)

Ideas are common elements of policy genesis and transformation and hence link the above three groups of questions: after the selection process, new policy ideas or “policy paradigms” (Hall, 1993) take the place of old ideas, become gradually influential and serve as the basis of institutions that influence/guide individual behavior. Selection, institutionalization and influence are closely linked and should therefore be conceptualized jointly. This triad of concepts is the main contribution of new institutionalism to the reflexivist-materialist debate on ideas, and it should be central to all explanation of idea influence, including the present

analysis. Nevertheless, any account of idea-based change needs to avoid the trap of structuralism common to all institutionalisms: one should not forget that institutions also enable action that could in turn alter/create institutions, so agency, such as that of defense intellectuals, should be a crucial element in explaining change and also idea influence. As I will show in this overview, traditional new institutionalist approaches have a mixed record both with ideas, and the agency they invoke. Therefore, they cannot fully account for the central puzzle of this dissertation.

The three dominant branches of new institutionalism—historical, rational choice and sociological institutionalism—developed as a critique of the behavioral revolution. Despite their conceptual differences, the three schools are united in that they relegate a central role to institutions in explaining political action. New institutionalism thereby aims at disentangling the complex interrelations of institutions and political processes, which also differentiates it from “old” institutionalism: the goal is not merely the analysis of formal institutions, but the understanding of political processes and outcomes *through* the analysis of institutions, broadly understood. Though definitions vary across schools, institutionalists agree that institutions embody values and power relations, and they are simultaneously human artifacts and possess a life of their own.

In the past two decades, new institutionalism became the frequent target of criticism from both the orthodoxy and the heterodoxy. Its critics raise the issue of conceptual and theoretical vagueness, the lack of explanatory power, and a status quo bias. These critiques often are joined in a focus on the Achilles’ heel of new institutionalism: institutional change. Change has always been a difficult issue for institutionalist for a simple reason: institutions are used as explanatory variables. Institutionalism(s) therefore focus more on continuity and

institutional reproduction (with variance lying in the outcomes that institutions produce), instead of change and adaptation. Therefore, initially, institutionalists neglected the systematic investigation of change, along with that of institutional genesis. Ideas themselves are one of the common elements of new institutionalist responses to these critiques, and it is specifically through the explanation of the process of institutional change that institutionalism enrich the reflexivist literature, and gains importance for this dissertation.

Institutionalist studies often explain political phenomena via the concept of sticky institutions, i.e. the institutional inertia that follows institutionalization. As soon as an institution is established, the concept shows, it gains a life of its own and acts as a strong constraint on individual action. Moreover, due to the phenomenon of institutional reproduction, the institution grows resilient to changes in its environment. Even if it does change eventually, it changes slowly. Since institutions influence individual preferences, a sticky institution, like for instance a military service, socializes the individual to behave conservatively, thereby further reinforcing institutional continuity and limiting change. Nevertheless, high levels of institutional stability are deduced from institutional theory and are not supported by the empirics, as institutional change is commonplace.

For new institutionalists change can either be revolutionary (longer period of institutional stability are interrupted by critical events) or incremental (less likely due to the stickiness logic). Common to these accounts is that change originates within structure to which agency merely reacts by erecting new institutions, leaving no room for conscious, agency-driven change. Institutionalists thereby disregard political actors, their conflicts, power differentials, and they dismiss the possibility of conscious institution design as a means of political power, i.e. the possibility of an actor creating an institution to further his or her

own goals (see Peters and Pierre's critique in Olsen, 2009, p. 3; cf. Bevir et al., 2013, Chapter 1). In order to account for these instances of change, new institutionalism turned to external variables, such as shocks (economic, political, military), exceptional leaders, or the aforementioned ideas. The introduction of these variables did however not solve the original problem, but instead led to a familiar one: by abandoning the exclusive focus on institutions, new institutionalism diluted its framework and diminished the explanatory power of purely institutional explanations.

The three variants of new institutionalism differ on the extent to which they are able to incorporate ideational factors into their framework. Rational choice institutionalism has an especially hard time dealing with subjective categories such as ideas: they are often toned down to nothing more than pure information, mechanisms for choosing among interests, focal points for establishing new equilibria, or just post hoc justifications for interest-based choices (the strategic use). Looking at these four separate conceptualizations, the problematic relationship between ideas and interests is apparent. Do ideas precede interests as “road maps” (Goldstein & Keohane, 1993a), similarly to Max Weber’s “switch men” (Weber, 1948)? Or do they bear importance as “focal points” right after a change has been initiated by individual actors?

Historical institutionalists on the other hand hold the previously mentioned assumption that institutions are mostly conservative, and shield decision-making practices and policy organizations from change. In Pierson’s (2000) formulation, institutions host self-fulfilling processes which hinder change once these processes are entrenched. This is the popular institutionalist argument for path dependence, wherein the costs of change outweigh the benefits of continuity and institutional permanence. Thus the original institutional setup

may keep the institution on the pre-set initial track (lock-in) (see Krasner, 1993; Pierson, 2000; Thelen & Steinmo, 1992). Using the logic of path dependence/sticky institutions, historical institutionalists could in theory explain the longevity of defense rationalism despite changes in both the policy environment and in the perceived interests of the original backers of the approach (i.e. the US Air Force²⁶), drawing attention to the importance of formal and informal institutional structures in perpetuating ideational influence (cf. Allan, 2013). Nevertheless, they cannot account for the *genesis* of these institutions, specifically the selection and institutionalization of defense rationalist ideas in- and outside of RAND. Thus, when these logics are translated to the topic of this dissertation, institutionalism once again encounters the problem of change.

Historically developed institutional systems are relatively stable, so historical institutionalists focus on revolutionary change at “formative moments” (Ikenberry, 1994)—a model of change commonly called punctuated equilibrium (Peters, Pierre, & King, 2005)—that in turn can lead to the genesis of new institutions. These formative moments are powerful enough to fundamentally challenge existing institutional setups and become catalysts for sweeping change. During such moments, institutionalism can accommodate agency, since crises enable actors to institutionalize ideas they hold as they search for new solutions, since the crisis had already discredited the ideas that the old institutions embody. This historical narrative consequently divides the life of institutions into normal periods and critical junctures. However, as Hall and Taylor (1996) note, historical institutionalism is often incapable to explain where these formative moments originate.

²⁶ After some Randites joined the Kennedy campaign in 1960, and later on transferred to the McNamara-led Department of Defense—then highly critical of the military establishment—the Air Force re-evaluated its approach to RAND and took a more controlling stance, limiting the think tank’s outside research through Secretary of the Air Force Eugene Zuckert’s famous directive (May, 1998, pp. 396–397). This conflict led to a falling-out between donor and think tank, eventually spurring RAND’s management to diversify both research and clientele (see Jardini, 1996).

One encounters the problem of the origin of formative moments also with defense rationalism: if indeed defense rationalism was a novel approach to military problems (i.e. a blueprint for a new type of institution), then what provoked its institutionalization? As I mentioned, the (thermo)nuclear revolution is often presented as such a formative moment (Brodie, 1946; Trachtenberg, 1989), leading to legitimacy loss on behalf of the status quo institutions (i.e. military organizations) and a *carte blanche* for defense rationalists. However, as I stress repeatedly, military thinking remained remarkably consistent throughout the early Cold War (i.e. defense rationalism's institutionalization), irrespective of technological developments. It was only around the end of the 1950s when deterrence truly took center stage (both as theory and policy), and it did so after a series of intense political and theoretical debates. Once we look at the history of the consecutive Single Integrated Operational Plans (SIOP) of the 1960s—master plans for conducting full-scale nuclear war against the Soviet Union and its satellites—war fighting and deterrence become conflated into an all-out qualitative and quantitative arms race, further weakening “revolution in military thinking” arguments (cf. Freedman, 1989; Pringle & Arkin, 1983). Thus, change (institutionalization) here seems to be more incremental than revolutionary.

In sum, the concept of punctuated equilibria highlights many of the previously discussed problems of institutionalist approaches. Structuralism, for example, still limits the creation of a sufficiently political and dynamic model of change, leading internal critics to call for an integration of a micro-theory of individual action (Peters et al. 2005). Such critics point out that conscious political action can also be the source of institutional change (Thelen & Steinmo, 1992, pp. 16–17). Though these critiques leave more room for agency, agency here is still very much reliant on structural factors, such as “windows of opportunity” (structural crises), like the aforementioned nuclear revolution in the case of defense rationalism. This

understanding of institutional change, though less structural, is still incapable to incorporate agency proper into the framework.

Historical institutionalists maintain that ideas can offer an answer to these issues, since ideas are often crucial in institutional genesis as they can serve as “road maps” for decision-makers, and “blueprints” for institutions (Berman, 2001; J. L. Campbell, 2002; Goldstein & Keohane, 1993a). Yet ideas in such context are more like “intervening variables”, not things tied to conscious agency. Ideas float around in the institutional context and are therefore available to decision-makers to use. Yet ideas are not sufficiently integrated in the approach’s ontology, structuralism underplays the role of idea carriers (and reifies the ideas themselves as things that “float” out there). In addition, the empirics lean towards incremental change rather than a sweeping revolution (cf. the criticism of the nuclear revolution thesis).²⁷

Institutionalists are aware of many of these problems and acknowledge that institutionalism needs a micro-theory for disentangling institutional change, a micro-theory that does exclusively rely on external, non-institutional variables. Moreover, given that institutionalist approaches emphasize that institutions alone do not explain political phenomena, the inclusion of such variables is unavoidable (Thelen & Steinmo, 1992, p. 3). Interestingly, some of the related questions raised by prominent institutionalists even mirror those of interpretivist political science, emphasizing the importance of agency even in

²⁷ The third variant in new institutionalism, sociological institutionalism, suggests that institutions can only change if the norms and rules underlying them weaken or lose their legitimacy. Change in an institution is therefore not the result of a loss of efficiency, but a loss of legitimacy. Just like with the historical argument of path dependency, suboptimal institutional setups may survive if underlying norms are shared and supported by a wide segment of society. Ideas also receive a central role in explaining change: the idea that challenges the legitimacy of existing institutions serves as a focal point for rival institutional structures. However, just like with its counterparts, sociological institutionalism also posits signs of rigid structuralism: it merely shifts the definition of “external shocks” towards crises in legitimacy. Though arguably a legitimacy crisis is more likely to have an ideational origin than a war or an economic meltdown, the framework itself does still not integrate conscious agents who originate the ideas into the analysis.

institutional-structural accounts. Harty (2005, p. 66) for example suggests that the solution lies in the “how”: the research focus needs to be shifted from windows of opportunity to resources, including ideas. Thereby ideas would cease to be separate from agency: conscious creative agents could use them to maintain institutions, or initiate their change. Thus, ideas can be a resource in the hands of an actor—for example through mere instrumental use—while framing the action itself: anything the actor does can only be interpreted through the actor’s ideas. This conceptualization of ideas-as-resources, though narrow, makes political processes more intelligible and provides signals about the power distribution after the institutional change, which is one of the central questions of historical institutionalism.

In sum, ideational new institutionalism offers a well-established framework for the study of institutions, yet it still does not tell us how exactly ideas influence policies and institutions, and in what kind of context they can become influential. An interpretative, ideational-discursive institutionalism therefore has to be able to address internal critiques about ideas-as-resources (cf. Harty, 2005), the internal life and mechanisms of institutions (cf. Greif & Laitin, 2004; Olsen, 2009), as well as the close contextual relationship between ideas and institutions (see Lieberman, 2002). Ideas in new institutionalism are clearly central to the explanation of policy/institutional change. Cases used by scholars in the field mirror the story of defense rationalism: i.e. a new idea overtaking established (sticky) institutional structures, and then forming the basis of new institutional setups. In turn, institutions are key to an understanding of the impact of defense rationalism, and new institutionalism can therefore offer guidelines for a more theoretically grounded version of the argument made in grand narratives: the school highlights the importance of ideas in explaining policy/institutional change, and the complex role the policy context (conceived in terms of formal and informal institutions) plays in explaining policy-making. Institutionalism thus offers a new take on the

relationship between context, ideas and policy change. However, it uses ideas restrictively and inconsequently, as a methodological solution to “fill the gap” in institutionalist explanations, i.e. to account for variance in institutional setups (see esp. Goldstein & Keohane, 1993b; cf. Jervis, 1994). This ad hoc reliance on ideas is characteristic of all three new institutionalisms, and is not dependent on how ideas themselves are defined (equilibria, resources, norms etc.). Once part of institutionalist accounts, ideas are in fact reified as elements of the policy context that “break the game” and allow agents to jump through windows of opportunity (i.e. crises in the institutional status quo) and create new setups. This problematic use of ideas forces institutionalist scholars into the agency-structure debate, where they end up as the structuralist straw men, left without any clear micro-theory of agency necessary to account for change

The theoretical solution to the problem of change therefore has to rely on an approach to ideas that is less rigidly structural and investigates not only the role of (reflexive) agents in bringing about ideational change, but also the relationship between agents, ideas and structures (institutions). Such an attempt to navigate the agency-structure divide is exemplified by thin constructivism in IR, more specifically by the theory of epistemic communities. The theory, with its focus on ideas and carriers, offers an interesting agential take on how actors can induce change in structures via ideas that supplements institutionalist theorizing on policy change. However, it is still hampered by another problem which originates from its understanding of ideas and the role of language and persuasion in policy-making.

1.3. Scientists save the world: Interpreting agency through ideas

The postwar American science policy framework built around the idea of military-civilian cooperation made it possible for civilian experts, such as defense rationalists, to have an input

in bureaucratic policy-making. This policy framework also exemplified the general trend of technocratized bureaucracies. Politicians have long been facing more and more complex issues that also often transcend state borders; while crises, such as wars, or economic meltdowns put even more pressure on policy-making. Consequently, policy decisions fall under strict time and professional constraints. In order to deal with this increasing complexity of the decision-making process, the political elite has been turning to civilian experts—intellectuals with specialized, policy-relevant knowledge—from the early 20th century on, and imbued them with policy authority, thereby transferring “wider and wider areas of public policy from politics to expertise” (Harvey Brooks quoted in Haas, 1992, p. 8). This trend had a prominent manifestation in the aforementioned science policy framework.

In the next sections, I will critically engage the theory of epistemic communities (Haas & Adler, 1992), which I consider to be the epitome of mainstream IR constructivism’s treatment of experts and expert ideas. By highlighting the ideational links that underpin group cohesion within such communities, the approach critically engaged rationalist approaches to state behavior and demonstrated the important role of policy ideas—especially of those not conceived in terms of material self-interest—in influencing/constituting foreign policy decisions. Due to its focus on experts, the epistemic communities framework is also an obvious theoretical contender for assessing the role of defense rationalists in US nuclear policy-making. But epistemic communities are an excellent starting point also for criticism: the approach’s bias towards the persuasiveness of science-based expert ideas—which it assumes rather than theorizes—can be seen as a conceptual reflection on the aforementioned historical narrative that depicts defense rationalists as “geniuses” who “discovered” the laws of bipolar nuclear superpower confrontation and “taught” these lessons to policymakers both in the US and in the Soviet Union. The conceptual roots for this bias will serve as the starting

point for my own criticism of the literature, focusing on the role of persuasion in conveying expert ideas on policy matters.

1.3.1. Expert ideas, epistemic communities and policy influence

Emanuel Adler's and Peter Haas' theory of epistemic communities (Haas & Adler, 1992) is a crucial contribution to the expert-related literature. Not only does it count as an analytical framework within foreign policy analysis, but it is also used as an empirical demonstration of the versatility of the (thin) constructivist approach to IR. The framework distinguishes expert groups from other, more traditional actors in policy-making based on their shared episteme—most notably in terms of their belief in the superiority of scientifically grounded policy construction—and links ideational research to more mainstream approaches to policy-making.

As defined by Haas, an epistemic community is a network of professionals with recognized expertise and competence in a particular issue-area, and an authoritative claim to policy-relevant knowledge within that domain. The epistemic community may consist of professionals from various disciplines, but they all have (1) a shared set of normative and principled beliefs which provides a value-based rationale for the social action of community members; (2) shared causal beliefs which serve as the basis for elucidating the multiple linkages between possible policy actions and desired outcomes; (3) shared notions of validity; and (4) a common policy enterprise—i.e. a set of common practices associated with a set of problems to which their professional competence is directed (Haas, 1992, p. 3). Due to the theory's conceptualization of the scientific group (and its ideas) as qualitatively different from other groups in the policy process, it can offer valuable ideas on how defense rationalists (rationalism) achieved their lasting influence.

In their seminal work for a 1992 *International Organization* special issue, Haas and his collaborators show how governments turn to experts and their epistemic communities for counsel and delegate responsibility to them as problematic, technological policy issues arise. Once members acquire important positions in the state bureaucracy, the community becomes a strong actor on both the national and international level. Through their growing bureaucratic power, epistemic communities “insinuate their views and influence national governments and international organizations” (Haas, 1992, p. 30). By not merely providing professional solutions, but also framing the issue areas themselves according to the community’s beliefs, they can in fact identify (construct) the national interest, insulating it from ideology, patriotism and “state-centric” concerns (Mitchell, Herron, Jenkins-Smith, & Whitten, 2007). In light of the new knowledge articulated by epistemic communities, a state may choose to pursue entirely new objectives (Haas, 1992, p. 5). The community’s beliefs then may be institutionalized both on the domestic and on the international level, thereby acting as a socializing framework/constraint for state behavior.

The literature on epistemic communities highlights the extent to which experts can influence policy-making, ranging from lower level policy deliberations to international issues such as the fight against climate change. The theory also shows just how qualitatively different scientific reasoning can be from interest-driven behavior—thus far traditionally theorized in material terms in e.g. bureaucratic politics. Yet two implicit assumptions hamper the theory’s applicability, assumptions that in some form also permeate the narratives I touched upon in the discussion of the “geniuses thesis”. First, due to its inductive logic and its use of “success stories”, the literature does not leave any room for failed influence: authors more often than not investigate cases where epistemic communities played a crucial role and could fundamentally shape policy *outcomes*, leading scholars to the implicit, yet erroneous

conclusion that wherever epistemic communities appear, their success in influencing policy—understood as a problematic correspondence between policy idea and outcome—is practically automatic.

Specifically, this success is implicitly attributed to the assumed and unproblematic superiority of scientific arguments, in lieu of a scholarly scrutiny of the conditions and mechanisms of idea influence and persuasiveness. On the one hand, this bias lends undeserved empirical credibility to the image of the “benevolent savant”, the naïve assumption that scientists and experts are more interested in science—i.e. creating a better world—than in petty politics. Consequentially, heeding their advice leads to better policies. On the other hand the bias masks the extent of the gap between expert policy ideas and actual, implemented policies (outcomes)—a gap that greatly weakens definitions which link ideational influence to policy outcomes. Haas and Adler seem to understand policy influence as the implementation of expert ideas as domestic and international policies—meaning that successful influence equals an idea implemented as policy—yet in reality the policy suggestions of experts are often neglected or are used instrumentally. This observation alone contradicts the assumed persuasiveness of these ideas, or at the very least renders it problematic. Moreover, from the point of view of ideational scholarship, this obvious problem unnecessarily opens up a point for criticism from rationalist scholars who consider ideas to be epiphenomenal.

Crucially, this idea-outcome gap is not a mere thought experiment: it characterizes even the epistemic communities that the aforementioned authors observe and analyze, for instance the heavily idealized communities of climatologists (Lindseth, 2006), or nuclear strategists working on arms control (Adler, 1992). Defense rationalists are not exempt either:

one of RAND's most coveted successes, Albert Wohlstetter's ideas about vulnerability and second strike deterrence only enjoyed limited success as the specific policy suggestions tied to the idea(s) were only partially implemented (see Ch. 6). In other cases, like with the idea about using conventional bombers in an anti-Soviet aerial campaign, RAND's ideas on strategy were dismissed completely (see Ch. 5). This discrepancy between accounts of intellectual influence and the lack of a direct policy influence necessitates a partial reinterpretation of the role of (expert) ideas in policy-making, and a reconceptualization of successful (policy expert) advice as a transfer and institutionalization of policy beliefs. Yet, despite this apparent gap, the story of epistemic communities is markedly not about mere strategic use as critics of the ideational literature would make one believe. A reversal to non-ideational explanations would still leave us puzzled about the successful proliferation of expert language and methods (i.e. experts' modes of reasoning or their policy-making approach).

The second implicit assumption in the epistemic community literature is closely linked to the first, and is derived from Adler et al.'s epistemological stance, more specifically the correspondence view of language (characteristic of most thin constructivists), as well as new institutionalist research on ideas.²⁸ The epistemic community framework does in fact engage the question of how intersubjective convergence around a particular, expert-supplied interpretation of reality might come about (Adler, 1992; Haas & Adler, 1992). Nevertheless, this convergence is treated as a sequential process with a widening circle of idea proponents. Persuasiveness is assumed, not theorized, which in turn allows the analyst to completely disregard the role of discourse—especially the array of choices that rhetorical persuasion involves—within policy-making.

²⁸ See e.g. Finnemore, 1996; Goldstein & Keohane, 1993b; Parsons, 2002; Sikkink, 1991; Tannenwald, 1999.

This assumption seems counterintuitive when we take into consideration that, as James Anderson aptly puts it, “the deliberation of public policy takes place within a realm of discourse (...) policies are made within some system of ideas and standards which is comprehensible and plausible to the actors” (quoted in Hall, 1993, p. 279). Policymakers customarily work within a framework of ideas and standards that not only define the goals of the policy process and the means for achieving them, but also specify the nature of the policy problem that requires deliberation. This framework of ideas manifests itself, among other elements, in the terminology (language) with which policymakers communicate.²⁹ Discourse socializes actors involved in the debate, without necessarily determining their behavior. Thus, as I will argue, expert persuasion cannot be reduced to individual cognitive experience, but has to happen through discursive means, leading to what Alistair Johnston (2001) calls “intersubjective convergence” on policy-making and specific policy problems.

In order to turn this avenue of criticism into a coherent interpretivist analytical framework about the agency of experts, first, I will depart from the above two interrelated points: the analytical neglect of policy discourse and the problem of idea persuasiveness. Prior to this critique, however, the limits of discursive approaches in interpreting expert agency need to be briefly addressed. Aiming to explain idea role in policy change, the proposed framework draws attention to the institutional context that surrounds experts to thereby conceptualize experts as situated agents. Attention to the situatedness of agency (context) not only enables us to problematize the historical contingency of taken-for-granted ideas, but also makes it possible to infer motives and intentions of key actors in the policy-making process (and the macro- and micro-discourses it involves), thereby isolating policy-relevant discursive

²⁹ In the case of defense rationalism, the terminology is readily recognizable under the commonly used labels of “nukespeak” (Chilton, 1985b; Hilgartner et al., 1982) and “technospeak” (Cohn, 1987; J. Green, 1986).

strategies and individual moves that form part of such strategies. Yet paying analytical attention to institutions and bureaucratic interests in this case does not necessarily lead to a competitive “testing” of ideational and material variables either, but rather to a markedly interpretive/constructivist rendering of bureaucratic politics (see Weldes, 1998). By understanding interests themselves as ideas/beliefs, elements of the policy environment traditionally detached from discourse can be identified through their discursive imprint as people necessarily construct their understanding of their interests through contingent and particular discourses (Bevir, 2010b). When it comes to policy debates, interests, for example, need to be communicated somehow in an environment that is all about deliberation and argument—even the mobilization of brute force requires the deployment of arguments (Crawford, 2009, p. 103).

The disregard of policy discourse as context, and the conceptualization of agency *without* the reflexivity that the rhetorical choices of persuasion involve is probably the biggest shortcoming of thin constructivism in general, and the epistemic communities literature in particular. Without explaining how persuasion is established, and how conscious agents situated in a predominantly discursive environment can persuade, the agency concept embedded in such approaches is incomplete. The lack of such mechanism in turn explains the success bias of the literature on epistemic communities and ultimately leads to a pseudo-structuralist end point: epistemic communities are influential due to the authority of scientific language on a societal level. Policymakers are socialized to accept scientific ideas as persuasive; therefore a group organized *around* such ideas can achieve an idea-driven impact on policy outcomes. As I have shown, this claim cannot be empirically supported. Nevertheless, cases offered by epistemic communities scholars still show considerable

influence. Expert persuasion needs to be theorized for the epistemic community concept to work as an analytical tool.

1.3.2. Thin constructivism's silent persuasion

In an aforementioned case study, Adler demonstrates how the American epistemic community of arms control experts—a group that greatly overlaps with the defense rationalist community—played a fundamental role in creating shared understanding and practice of arms control, which in turn “gave meaning to and helped coordinate expectations of superpower cooperation during the Cold War” (Adler, 1992, p. 102). The study looks at how the community’s ideas became political expectations, were diffused to the Soviet Union, and were then institutionalized in the regime around the 1972 Anti-Ballistic Missile (ABM) treaty. The wording Adler uses mirrors the positivist interpretation of deterrence theory as a collection of causal laws about the world: by the early 1960s deterrence theorists “bec[a]me aware” of the vulnerability of the US and “concerned” about the reciprocal fear of surprise attack. They predicted that the current arms dynamics could lead to nuclear war, whereas security would increase with superpower cooperation. Members of this epistemic community then “reached into the places where decisions are made and into the minds of the people who made them” (Adler, 1992, p. 102). Unlike Alexander Wendt (1992) and other early constructivists, Adler thereby offered a non-structuralist interpretation of state socialization and at the same time still problematized the origin of interests: he argued that epistemic communities established a particular interpretation of the national interest, an interpretation that favored cooperation to confrontation.

The article does contain a multi-stage element of persuasion, but not a proper *mechanism*. First, Adler explains, the scientific community needed to achieve a level of consensus on arms control. Second, community members needed to persuade the national decision-making elite which in turn selected “shared expectations and practices” that were expected to meet the decision-maker’s criteria for furthering the national interest. Third, once the national elite had been persuaded, community members had to convince their Russian counterparts. In explaining the process, Adler’s account encounters four interrelated problems. First, and similarly to other applications of the theory, language and discourse are excluded from the explanation. This omission is especially curious in Adler’s case, since he explicitly targets a tight intellectual group with regular meetings, deliberations, open publications, a community and an international conference culture.³⁰ Instead, he merely refers to “verbal communication” which helps to create shared understandings (Adler, 1992, p. 107). The mechanism and the relationship between language and the expert ideas in question, however, are not problematized. Secondly, Adler still hints at the process through which these ideas proliferated: he assumes that they were inherently persuasive, as is common in the epistemic communities literature. Initially, he claims that these ideas were “a response to changes in technology and weapons systems, the balance of power between the superpowers, and American politics”, and claims that “they were rigorous theories (...) [that] had evolved together with theories about strategic war, limited war, and escalation, and whose reference point was not experience but only expectations of the future” (1992, p. 119). Adler thereby acknowledges the contingency of these ideas vis-à-vis the policy environment (including other ideas), and that they lack the support of empirical evidence which arguably could improve an idea’s persuasiveness in a policy field where “hard evidence” is available.

³⁰ Cf. Fierke’s (1998, p. 60) criticism of Wendt’s work on similar terms.

Adler's uncritical approach to defense rationalist ideas is even more apparent in his treatise of international diffusion to the Soviet Union: American experts "educated" their Russian counterparts in matters such as the requirements of safe and secure second strike forces³¹ (Adler, 1992, p. 135). Though Russian theorists were aware of the intellectual divisions within the American epistemic community, they "drew confidence from the fact that a strong group of arms control lobbyists existed in the United States" (Adler, 1992, p. 137), gradually realized the "truth value" of American claims—we are still in the realm of abstract theory though—and subsequently persuaded their own government. These very leaders, before the ABM conference in 1968, "gave every indication that they could not or did not want to *understand* why defenses were 'bad'" (Adler, 1992, p. 136, emphasis added). Though Adler acknowledges that political leaders were also persuaded through hegemonic "linkage politics"—i.e. linking issues such as Chinese-Russian tensions to the question of arms control—their theorists show signs of a certain revelation pertaining the rationality of US theories, reflecting not so much the contextual persuasiveness of these ideas vis-à-vis other ideas, but their very truth value: ideas on arms control were not accepted, but gradually *understood* through a process of learning.

This unproblematic origin and persuasiveness of defense rationalist ideas leads to the third problem, their reification by the constructivist analyst, instead of a problematization of how involved actors themselves reify these very ideas (cf. Pouliot, 2007). In fact, one could trace this latter problem to a kind of *double* "rump materialism" (cf. Wendt, 1999, Chapter 3) implicit in Adler's reasoning. Rump materialism assumes a (material) world before knowledge, leading to a reification of the analyst's *scientific* representation as

³¹ The trope of experts educating the uninitiated is mirrored in the dominant narrative of the geniuses thesis. Indeed, Randites identified themselves as educators. For example, the idea of "educating" the Air Force appears in Edward Quade's coursebook, "Analysis for military Decisions" (Quade, 1964b).

commonsensical, natural and universal (Pouliot, 2007, p. 363), which in this case equally pertains to the interpretation of defense rationalist *scientific* ideas—i.e. their interpretation of the world—as well.

A final, fourth problem derives from the fact that Adler’s narrative of the “education of Russian expert” is reminiscent of a common, yet highly problematic Cold War linguistic interpretation of deterrence, and its difficult transmittability across languages. As Paul Chilton quotes Vigor (1975), a prominent proponent of this narrative:

The basic essence of ‘deterrence’ as expressed in the verb ‘deter’ has no real equivalent in the Russian language (...) This failure to express correctly in Russian the essential notion of the concept ‘to deter’ has naturally been reflected in a similar failure to express correctly in Russian either ‘deterrent’ or ‘deterrence’. In other words, the Russian mind is singularly ill-equipped to apprehend the notion of ‘the act of deterring’ and not much better to apprehend that of the ‘thing that deters’. (Quoted in Chilton, 1985c, p. 104)

Chilton continues by arguing that this form of linguistic reasoning is counterproductive for two reasons: it assumes that the absence of a lexical item also implies the inability to grasp the concept it denotes, and that deterrence is an objective given category waiting to be named in several languages of the world—a task in which (American) English succeeded first, and was then transmitted into Russian.³² Though Adler is clearly critical of any assumption about a transmittability problem (deterrence *can* be understood), his underlying assumptions are nevertheless shared with Vigor.

An alternative view would be that different cultures have formed different stable concepts and lexical items in connection to similar military policies. This view, to which the author of this dissertation subscribes, denies the existence of conceptual limitations on the one hand, but more importantly, it denies the effortless “translation” of deterrence as an objective

³² The expert-as-mediator/conflict manager/translator between cultures is yet another addition to the image of the benevolent savant.

concept and as a policy. The analysis of such conceptual transmissions should always pay attention to the social context and the language used: translation between traditions is still possible, as the example of defense rationalists shows, but it is never simple, not to mention automatic.

In sum, when it comes to the question of correspondence between defense expert ideas and an external reality, Adler's approach can hardly be distinguished from that of realism/strategic studies: deterrence theory tells us "the Truth" about the world. Due to its scientific originators, deterrence theory is imbued with a sort of scientific rationalism that renders it persuasive for others in the policy process—people who are "educated" by members of the epistemic community. Persuasiveness is assumed when ideas of arms control/deterrence transform interests: objective and rational science trumps politics and the benevolent scientist is able to "help bring about a better international order" (Haas, 1992: 4). With a correspondence theory of language and the dismissal of discourse-as-context in policy analysis, intersubjective meaning construction cannot properly be understood. Eventually, the thin constructivist analyst is left again with the naïve interpretation of scientific/expert influence that does not question the naturalness of concepts such as arms control³³—concepts whose denaturalization lie at the core of this dissertation. Nevertheless, it is crucial to emphasize that calling out the epistemic community literature on this lack of problematization does not take away from the importance of the communities themselves, but draws our attention to the "how"/"how possible" of epistemic community influence.

³³ Ironically, in the same article, Adler (1992, p. 107) famously called nuclear strategy/deterrence theory "imaginary" due to its lack of empirical support.

1.4. Persuasion and idea-driven policy change

As my overview of new institutionalism and epistemic communities has demonstrated, finding a mainstream theoretical contender for answering the central research question along the agency-structure axis can only present partial solutions. On the structuralist end, new institutionalism underlines the importance of institutions-as-context in explaining ideational policy change, and offers compelling case studies where ideas acted as catalysts for sweeping transformations. However, since the approach relies on ideas only methodologically, it tends to reify them, and does not integrate neither ideas, nor the reflexive agents who might rely on them as resources. New institutionalism therefore lacks a micro-theory of agency which would also be helpful in dealing with the question of incremental change. The theory of epistemic communities on the other hand offers an agential account of incremental policy change by focusing on a group of agents (experts) and their ideas. The framework seeks to incorporate considerations of both structure and agency, as well as the reflexive relationship between the two. However, due to its reliance on a correspondence theory of language, it completely disregards the predominantly discursive aspect of idea selection and dissemination (a problem also present within new institutionalism). Though epistemic communities offer a non-materialist account of understanding idea influence, the theory still reifies the ideas themselves and fails to offer an adequate answer to the central research question: why certain ideas are selected for policy use and not others (cf. new institutionalism)?

The key to both issues, I argue, is persuasiveness, i.e. how idea carriers establish the superiority of their ideas vis-à-vis the policy environment, including institutions and other ideas. Instead of reifying ideas and making assumptions about their persuasiveness (e.g. correspondence to an external reality and/or scientificity), analysts should theorize and

investigate what influences persuasiveness in a given context, and how it is established. Such an investigation, I argue, will necessarily be discursive, ideational and interpretive.

Some of the problems that result from the structure-agency dichotomy I discussed are well-known. By the mid-2000 it became clear to many IR scholars that the agency-structure debate is not solvable. Some argued that the antagonism between the two approaches is constructed in a way that any theoretical attempt to juxtapose or synergize them is bound to end up with an incomplete, either overly agential or overly structuralist account. Consequently there have been attempts to circumvent, and thereby overcome the agency-structure problem, most notably the theoretical and methodological work of Vincent Pouliot (2004, 2007). Pouliot, as I will discuss in the next chapter, urged a return to the basic tenets of constructivism (subjectivism—his methodological argument), and to practice as “the stuff of politics” (his ontological argument). His path breaking methodological work spilled over into his collaboration with Emanuel Adler within the practice turn in IR, culminating in a 2011 edited volume that summarized the tenets of the logic of practice, designed to circumvent the problems I discussed above, most notably reification by theorization on behalf of the analyst, and the complexities resulting from the discursive nature of policy-making (Adler & Pouliot, 2011a). By showing the benefits and shortcomings of this contemporary constructivist take on policy change in the next chapter, I will reinforce my claim that persuasion should be at the center of the agency-structure problem and offer an alternative meta-theoretical position through a synergy between (British) interpretivism and discursive institutionalism.

Chapter 2: Interpreting idea persuasiveness

What can the solution be to the persuasion problem that I have outlined through the example of new institutionalism and the theory of epistemic communities? Both structuralist (new institutionalism) and agential (epistemic communities) approaches fail at the task due to their conceptual omission: the former reify ideas, only use them for methodological reasons, and remaining rigidly structuralist; whereas the latter omit the role of language in idea dissemination and reify ideas due to a reliance on a correspondence theory of language. Pouliot's subjectivism addresses some of the crucial problems I have outlined so far, most notably the reification of ideas via theorization—a fallacy that explains why the persuasiveness of expert ideas is assumed in the epistemic communities.

As an approach that promotes denaturalization through interpretation and historicization that also takes into account the subjective interpretation of the actors themselves (a crucial component of persuasion), subjectivism will be adopted as the methodology of this dissertation (see section 3.7). Still, due to its focus on methodology, subjectivism is inadequate for answering the research question. Abandoning representational bias in constructivist IR is a crucial move, yet what should fill the remaining void? What should be the key component of an inductive and interpretive take on policy change? I have repeatedly argued for persuasion for this purpose, yet Pouliot takes a different road: that of the practice turn. This approach, which I will discuss shortly, comes with its own problems and ultimately fails at carrying over the tenets of subjectivism into meta-theoretical grounds, due to its underlying assumption about agency and its misconceptualization of practices-as-data. In fact, the practice turn completely omits the question of rhetoric and persuasion in explaining idea influence, and works with an agent concept that relies on unreflexive

background knowledge. The agent of the practice turn thus acts habitually, yet as the example of defense rationalists clearly demonstrates, there are always exceptions: reflexive actors who change the world.

2.1. Subjectivism and practice: Back to constructivist basics?

In "'Subjectivism': Toward a Constructivist Methodology", Pouliot (2007) makes the claim that constructivists should be inductive, interpretive and historical in their methodology. The goal is to uncover not only objectified (experience-distant), but also subjective (experience-near) knowledge about the social world—a duality that is captured in the name subjectivism. Pouliot claims that subjectivism can help circumvent the fruitless agency-structure debate through a three-step methodology (discussed in detail in section 3.7) that moves from the subjective towards the objective. First, he argues, analysts should use induction to recover the subjective meanings actors assign to the world around them. Second, through interpretation, the analyst should rely on interpretation to objectify meanings in their intersubjective context—to identify what agents take for granted. The third and final step the further objectifies meanings through historicization. By putting meanings in a temporal context, subjectivism highlights their evolution and thereby questions their taken-for-grantedness.

Pouliot constructs his methodology on the basis of the core tenets of the “constructivist style of reasoning”, which is postfoundationalist (see Pouliot, 2004) in its ontology (social reality is constructed) and epistemology (knowledge is constructed), and is based on the assumption of the mutual constitution of knowledge and reality (reflexivity). This essentialization of constructivism then boils down to the claim that knowledge is a construction shaped by its context within a feedback loop (Guzzini, 2000). This core tenet of the approach underlies my earlier criticism of the epistemic community literature: that the

world cannot be known outside of our socially constructed representation—most prominently through language. In turn, if a scholar assumes a world before knowledge, he/she will end up reifying his/her scientific representation as natural and universal (Pouliot, 2007, p. 363). Theorization destroys meaning as it exists for actors themselves.

Instead, subjectivism should be used to uncover these meanings via induction, to identify what actors believe to be real without imposing theoretical logics on what actors do and believe about the world. Only then can the constructivist analyst employ his or her own knowledge through interpretation. But interpretation should be used very carefully (see double hermeneutics in Guzzini, 2000). Interpreting an already interpreted world objectifies subjective meaning as part of an intersubjective context so that it can be understood. Here, Pouliot notes that interpretation should target more than just discourse: it should deal with practices in general, understood as “actions endowed with intersubjective meaning” (Pouliot, 2007, p. 366). This is precisely the problem with the agency-structure debate, Pouliot implies. The third step then puts these meanings in their temporal-historical context, thereby dislodging them from their naturality: through historical narratives, the constructivist analyst can show that things have not always been as they are. The use of narrative then identifies “contingent practices that have historically made a given social fact possible” (Pouliot, 2007, p. 377). Causes in this weak, narrative sense then become “heuristic focal points” for the analyst making sense of the world (*ibid.*).

Pouliot’s work achieved wide acclaim among constructivist, but it did not venture further into theorizing until the late 2000s, the beginning of his collaboration with Emanuel Adler on the practice turn (Adler & Pouliot, 2011c).³⁴ Constructivist of the practice turn aimed to escape the conceptual confinement of the agency-structure debate by identifying

³⁴ See Adler & Pouliot, 2011a, 2011b; Pouliot, 2008, 2010a, 2010b.

practices as neither purely agential nor structural. In addition, practice was seen as a means to circumvent the problems of idea persuasiveness by serving as the predominantly non-discursive raw material of politics that can still be objectivated and can thereby serve as the basis of a naturalist epistemology. As the ontologically prior basis of politics that works unreflexively, practice was then suggested as yet another contender for a scientific constructivist epistemology, supplementing earlier attempts (cf. Wendt, 1999).

Pouliot (2008) originally forwarded the logic of practicality as a fourth kind of logic of political action, in opposition to major social logics—equated with rationalism, constructivism and critical theory—that in his view suffer from representational bias: they talk about what agents think about and not “where they think from”. As Pouliot puts it, “conscious representations are emphasized to the detriment of background knowledge—the inarticulate know-how from which reflexive and international deliberation becomes possible” (Pouliot, 2008, p. 258). This underlying, unarticulated, and omnipresent knowledge that guides action is captured through his conceptualization of practices as “the result of inarticulate know-how that makes what is to be done self-evident or commonsensical” (Pouliot, 2008, p. 257). The logic of practice is complementary with other logics, yet it is also ontologically prior to them, and lies at the intersection of structure and agency. Therefore, practices offer yet another possibility to conceptually link agency- and structure-driven approaches, thereby rendering the agency-structure dichotomy mute.

Within this framework, a practice-based constructivist ontology comprises performance, pattern, (in)competence, background knowledge and the “discursive/material nexus”. Practices are defined as “socially meaningful patterns of action, which, in being performed more or less competently, simultaneously embody, act out, and possibly reify

background knowledge and discourse in and on the material world” (Adler & Pouliot, 2011c, p. 4). Practices are thus particular kinds of action, they point out “the patterned nature of deeds in socially organized contexts” (Adler & Pouliot, 2011c, p. 5). For Adler and Pouliot (2011c, p. 5), “practices are not merely descriptive ‘arrows’ that connect structure and agency and back, but rather the dynamic material and ideational processes that enable structures to be stable or to evolve, and agents to reproduce or transform structures”. For this reason, they claim, practices have to lie at the core of any structurationist logic.

Without delving too much into the conceptual building blocks of the approach, two of its core components, background knowledge and the relationship between discourse and the material, need to be treated in detail for the purposes of this dissertation. According to the approach’s proponents, practices rest on *background knowledge* (cf. Bourdieu, 1980) which they embody, enact and reify all at the same time. Background knowledge is practical, and it is oriented toward action. Therefore, Pouliot and Adler (2011c) claim, it often resembles skill more than “the type of knowledge that can be brandished or represented, such as norms or ideas”. This understanding of practice as non-science, as a matter-of-fact type of doing things originates in Pouliot’s initial 2008 articulation of the approach, and to some extent to his subjectivism³⁵. Practice is presented in direct opposition to abstract, representational theorizing (Pouliot, 2008, p. 271). “One cannot reduce practice to the execution of a theoretical model”, Pouliot (2008, p. 261) stresses, since any practice can be oriented towards a goal without being consciously informed by it. Simply put, a practical understanding of policy shows that one cannot imbue practitioners with the logic that scientists use post hoc to explain phenomena. This argument in turn implicitly underscores the need for interpretation

³⁵ Cf. the critique of “prenotions” and the “Rashomon effect” in Pouliot, 2007, pp. 364–365.

(see Pouliot, 2007), and highlights once again the problems I raised with regards to the theory of epistemic communities.

The other crucial conceptual point in need of discussion is that practices link the discursive and material through language. Without language, communication, and discourse, practice scholars claim, behavior and practice would be indistinguishable. For the practice turn, language is not merely the conduit of meaning turning practices into the location and engine of social action, but is itself an enactment or doing in the form of “discursive practices”. Practices represent the world in specific ways by implicitly making the claim that “this is how things are”. On the other hand, practices are mediated by material objects. Since practices are enacted in and on the world, they can change both the physical environment and the ideas that people collectively hold about it.

In their edited volume of practice-based IR scholarship, Pouliot and Adler (2011a) claim that practices are both material and meaningful. They use “things”, and they are enacted in and on the world. On the one hand, this line of reasoning leads them to argue that material objects central to practice can and do gain agency of their own, for example nuclear warheads in deterrence and disarmament (Pouliot, 2010b). This interpretation of practice also relies on language both in a weak and a strong fashion. In its weak form, language sustains intersubjectivity by linking agency, structure and process in socially meaningful ways. In its strong form, language is not only the conduit of meaning, but is also (and primarily) an enactment of doing. Although practices still rely on knowledge and embody material objects, in a discursive strong sense, the competence of routinely doing something socially meaningful often relies on discourse. Therefore, Adler and Pouliot conceive of discourse as practice, and understand practice as discourse (Adler & Pouliot, 2011c, p. 16). Discourse in this form is

placed in opposition with rhetoric as the use of language to persuade and mold the world. As Pouliot (2010a, p. 31) argues, “the core *modus operandi* that defines practice is transmitted through practice, in practice, without acceding to the discursive level”. So practice, despite its discursive elements, is not discourse in the sense that it “deemphasizes what is going on in people’s heads—what they think—to instead focus on what it is they do” (Pouliot, 2008, p. 274).

But then how does the practice turn account for reflexive agents using their discursive abilities to mold their surrounding? Practice, as conceptualized here, comes with a set of assumptions about agents that, despite the theory’s general leaning towards implicit structuralism, includes “wiggle room” for agency which comes from the tacit, inarticulate and partly reflexive knowledge behind practices. Adler and Pouliot variably call this knowledge “the Background” (via Searle) or “habitus” (via Bourdieu), but always emphasize its unreflexive aspect: “habitus also negates completely free will or fully fledged creativity: agents ‘improvise’ within the bounds of historically constituted practical knowledge” (Pouliot, 2008, p. 274).

Due to this restrictive structuralist formulation, the precise role of *reflexive* agency is a recurring issue with the theory of practice, and raises the question how the practice turn can account for reflexivity’s potential role in bringing about social change. The mechanism of change for practicality naturally originates in practices. Using March’s understanding of change as illusionary stability, Adler and Pouliot note that practice as performance is a process, and change is the ordinary condition of life. As March put it, “Change takes place because most of the time most people in an organization do about what they are supposed to do; that is, they are intelligently attentive to their environments and their jobs” (quoted in

Adler & Pouliot, 2011b, p. 18). Stability is therefore an illusion created by the recursive nature of practice. This understanding of (gradual) change clearly emphasizes the unreflexive elements of practical behavior. Practice is both stability and change, and language only appears in its weak form: discourse as a conduit for the daily performance of practice, but not rhetoric as a means to change. Practice as routinized behavior offers a way to understand stability (even if only in its illusory sense), but the analytical edge practice provides for understanding change is unclear.³⁶

2.1.1. Practical problems

Based on the above brief introduction of practice-based constructivism, a number of critical points should be made. The first concerns agency, reflexivity and their relation to structures.

Adler and Pouliot frame the role of agency within their framework the following way:

Practices are agential (...) not only because they are performed by individuals and communities of practice, but also because they frame actors, who, thanks to this framing, know who they are and how to act in an adequate and socially recognizable way. (...) Structure, in turn, shows up in practices in the form of standards of competence that are socially recognized. (...) While performed by individual human beings, practices are possessions of collective insofar as their meanings belong to communities of practice. ‘Suspended’ between structure and agency, practices are simultaneously enacted (agency) and inserted within a social context or political order (structure). (Adler & Pouliot, 2011c, p. 16)

This understanding of practice as something in-between agency and structure is misleading in that it suggests that the three elements (agency, structure and their relationship) share the

³⁶ The kind of background knowledge Pouliot and Adler refer to had already been present in constructivism, for example in Karin Fierke’s work on language games (Fierke, 2001) or in securitization theory (Williams, 2003), and is featured prominently in interpretivism (Bevir, 2000), as well as in discursive institutionalism (Schmidt, 2008). The key difference between Wittgensteinian “language in use” and practice is that for the latter, social action stems from practical logics which are fundamentally nonrepresentational. (Pouliot, 2008, p. 269). While representational knowledge is acquired through formal schemes, practical knowledge is learnt experientially and remains bound up in practice.

same level of importance within the framework. As I have shown, practices only offer a very weak form of agency: agency is gained through structures (practice) that assign roles to actors who then unreflexively follow the requirements of these roles. Whether they succeed (are competent) at what they do is again defined by structure, i.e. a social context of standards of adequate behavior. This form of agency enables Pouliot and Adler to draw in the material aspects of practice, since such agency-derived roles can also be assigned to material objects within a practice, as is the case with missiles in Pouliot's (2010b) analysis of NATO-Russia relations. Though this conceptual position allows for a combined analysis of the material and the ideational, it is still primarily structural. In their attempt to go beyond discourse/rhetoric, practice theorists rely on a core concept that gains its objectivation from its unreflexivity. Agency based on practice therefore cannot truly be reflexive and account for change. Discursive persuasiveness in a practice-based framework would simply be a passive function of the social context (i.e. the practice in question), where an idea's persuasiveness is constituted by the competent performance of its carriers.

My second critical point is closely related to the first, and it concerns discourse and persuasion. In their attempt to circumvent analytical problems arising from the discursive aspects of social life (esp. rhetoric), Pouliot and Adler merge the definition of discourse and practice by arguing that practice is not about discourse (i.e. what people say), but about what they do. At first glance, this seems like a behaviorist argument, yet, as I discussed earlier on, discourse is later inserted back into the framework both in a weak and a strong form. Still, despite these diverse references, discourse is featured more in its weak form in a practice-based understanding of policy and policy change: as I have argued repeatedly, Adler and Pouliot understand "what people do" in terms of tacit background knowledge that promotes unreflexive and iterative behavior, but not conscious, reflexive agency. The ontological

justification for this reductionism originates in the original juxtaposition of practice and theory (representationalism) in Pouliot's 2008 article: the logic of practicality enjoys ontological primacy because it does not suffer from representational bias. It is what people *actually* do, and, crucially, they can enact a practice without being aware of it/theorizing it.

Once translated to the topic of this dissertation, these issues with the logic of practicality produce an explanation that adds little to the solution of the problems that the epistemic communities-based explanation suffered from. In fact, the way Adler and Pouliot theorize the influence of deterrence theory (defense rationalism) in their work can easily be seen as a structuralist version of the argument Adler offered in 1992. The two scholars namely make the argument that, initially in the Cold War, the United States and the Soviet Union did not constitute a community of deterrence and arms control. Instead, it was practice that turned the two into players of a nuclear deterrence/arms control game. Gradually, the superpowers took up identities associated with a community of deterrence and arms control practice, and step-by-step learned "to competently perform the moves required to deter each other and thus to prevent nuclear war". Yet the mechanism through which this practice evolved is not discussed in detail.

This conceptualization of two-player superpower antagonism resonates with other constructivist accounts that highlight the constructedness of the conflict (see esp. Fierke, 1998; Klein, 1994). Yet these earlier analyses more readily emphasized the role of ideas (e.g. defense rationalism) in creating the Cold War as a (language) game. For Pouliot and Adler, however, the conflict is primarily practical, not discursive-ideational. The practice account, they argue, is more complex as it is not just about the ideas, but also the material dimensions of the game, like the aforementioned missiles. Instead of a Cartesian separation, Pouliot and

Adler once again link the two via agency which reproduces the identities of the superpowers. To put it simply, possessing missiles makes a superpower. Not only does the identity of a superpower engaged in nuclear brinksmanship assign meaning to mere material objects (missiles), but the missiles themselves gain agency of their own on that they predispose the superpower to act in a certain way when it comes for instance to disarmament and arms control (Pouliot, 2010b). This material-agency is structural as it is a function of iterative practices. Still, it adds little to language game-based accounts as those already incorporate material objects: instead of separating the ideational and the material, they investigate how players assign meaning to material objects based on the rules of the game. The difference lies more in the practice turn's explicit emphasis on the agency these material objects may carry.

Pouliot and Adler also address where this practice originates: in defense rationalism:

the theories that first constituted the background knowledge of stable deterrence and arms control (which Thomas Schelling and other Cold War strategic experts first developed) became increasingly established in government circles and national security bureaucracies, setting the frame of mutually recognizable competent performances. (Adler & Pouliot, 2011c, p. 21)

Once again, similarly to Adler's discussion of the epistemic community of arms control scholars, the issue of idea persuasiveness is not addressed—or, rather, is assumed within the confines of a practice (i.e. following these ideas constitutes competent performance within the practice).

The selection question from new institutionalism once again lurks in the background: Why were these ideas picked and why were they so readily accepted? Within the practice framework, idea selection could also be explained by practices outside of the practice of deterrence, for example through the gradually developing practice in the United States of using scientific advice of a certain kind. However, Adler and Pouliot, due to their rather fuzzy

definition of what practices are, do not offer analytical benchmarks for deciding where a practice ends and another starts, or how various practices (and their performers) interact (see Andersen & Neumann, 2012). Practice as the stuff of politics is again too watered down for explanation, and the above account of the proliferation of defense rationalist thought adds little to existing grand narratives, other than a practice-based description of the context itself. Moreover, due to its neglect of discourse, the practice turn encounters the same pitfalls that debilitated the epistemic community narrative: in an environment of constant deliberation, persuasive discourse and rhetoric can neither be fully excluded from the analysis, nor can they be subsumed under a catch-all concept like practice.

In sum, thin constructivism offers two interlinked approaches for problematizing the influence of defense rationalism—epistemic communities and practice—yet both fall short due to inherent conceptual omissions. As I argued in section 1.3.2, the theory of epistemic communities assumes the persuasiveness of ideas and does not engage neither their context (cf. new institutionalism), nor the inherently discursive nature of idea dissemination. As a predominantly agential approach to experts, it stays within the boundaries of the agency-structure debate. Pouliot's subjectivism on the other hand was initially intended as a way out of this strict dichotomy of agents and structure by a return to the basic tenets of constructivism. Instead of forcing theoretical concepts on the practices of agents, Pouliot argued, constructivists should instead depart from what agents themselves take for granted, i.e. how they interpret their own environment. With its emphasis on induction, interpretation and objectivation through historicization, subjectivism offers an excellent *methodological* tool for assessing the role of defense rationalists, yet it does not help in answering the research question. The practice turn on the other hand fails to implement subjectivist guidelines in ontological and epistemological terms by relying on an understanding of practices as a) raw

data, and b) as unreflexive background knowledge. By seeking to circumvent one problem, the practice turn returns to another: a fuzzy, structuralist account of politics that diminishes the role of the kind of reflexive agency that defense rationalists represent.

2.1.2. Discourse, institutions and policy-making

But then what should an interpretive, reflexive and discursive theory of expert idea influence look like? Following Pouliot's methodological guidelines on interpretation, I aim to bracket the restrictive dichotomy of the agency-structure debate by highlighting the importance of persuasion in idea selection, institutionalization and influence. My criticism of these two key thin constructivist approaches highlighted the importance of discourse-as-context and the centrality of performative language in policy-making: both an explicitly agential, and an implicitly structural interpretation of policy-making should take into account the importance of language and rhetorical persuasion in inducing policy change. Both constructivist branches offer valuable insights into how experts may interpret, and interact with their policy environment through their ideas (agency), or as performers adhering to the requirements of a specific context (structure). So it would be an error to claim that the critical points I raised simply converge into an endorsement of discourse analysis, i.e. approaching the role of experts through the analysis of the policy discourse in question. Despite its centrality to it, policy analysis cannot simply be reduced to the analysis of policy discourse.

The previous review of agential and structural approaches to the role of expert ideas in policy-making brings a number of fundamental lessons. First, thin constructivism's repeated omission of the *why* of idea selection/idea persuasiveness draws attention to the context that agents—in this case, experts and their communities—are situated in. This primarily discursive environment can be conceptualized as a web of meanings that on the one hand situates the

agents (who they are) and on the other hand, requires constant interpretation when engaging this very environment. Therefore, the question why a particular idea becomes persuasive should be investigated through this dynamic relationship. The practice turn—despite its leaning towards structural reasoning—highlighted the importance of situated individual action by drawing attention to the performativity of social interaction. Its structuralism in this sense resonates with that of new institutionalism, the other major ideational branch of the literature, where ideas are used as “explanatory variables” to account for institutional change. This is where the second lesson emerges from: unlike the fundamentally unreflexive understanding of agency common in the practice turn, new institutionalism’s understanding of agency is more reflexive, yet not integrated in its ontology and epistemology. By conceptualizing ideas as resources and agents—even individuals—as the source of institutional change, new institutionalism (implicitly) points towards the aforementioned dynamism between agents, their ideas, and the structural policy/institutional context (see esp. Hall, 1989). Not only is this institutional take pivotal for understanding the precise role of ideas in policy-making, but it is also crucial for conceptually restricting the role of discourse within an interpretive theory of policy-making.

“Power differentials” always exist between actors in their person-to-person exchanges, and these differentials regulate things like speaking turns, rights and obligations of reply etc., and these differentials are primarily regulated by institutions (see the relationship between security analyst and military audience). This crucial role of power, however, is often naturalized in ethnographic discourse analysis, even though it is at this level of “micro-discourse” that discursive strategies compete and come to dominate (Chilton, 1985b, p. xxi). The analysis of only a macro-discourse may very well mask these power relations. Moreover, since the analyst can never be sure whether actors truly believe what they say, discourse alone

does not necessarily tell us much about outcomes. In order to infer the motivation of key actors in the discourse—indeed in order to identify who these actors are—we need to pay attention to the institutional context that shapes this discourse, as well as to the micro-discourses of agency situated within this context.

This decision is not a purely theoretical one, but is rooted in the empirics of this dissertation. Applied to the example of defense rationalists, power relations within the bureaucratic context define not only who can speak about what, but also the appropriate forms of dissemination of policy ideas (acceptable genres for instance). They limit who can have access to classified data (essential for policy relevant contributions), and define the proper fora for communication (briefings and lectures). Crucially, the micro-discourses at these fora *within* the bureaucracy differ from the general deterrence discourse both on the academic and the societal level which still receives scholarly attention within International Relations. This difference manifests itself among others in the circle of participating actors, the topics discussed, the level of direct policy relevance, and the format of discussion.

In the next section, I will therefore suggest to re-approach the literature from an interpretivist meta-theoretical point-of view. I will show that using the tenets of interpretivism—understood as an explicitly agential mode of reasoning that also includes a diverse concept of structure—it is possible to combine the conceptual benefits of both agential constructivism and new institutionalism in a coherent framework that adheres to the requirements forwarded in subjectivism. Even though interpretivism is a well-developed, philosophically rich research project, it is still primarily agential and lacks a concept of institutions-as-structures comparable to that of new institutionalism. Still, interpretivists commonly hold that institutions are absolutely compatible with the tenets of their approach,

but existing theories of institutions lack a micro-theory that is able to link agents and structures (institutions)—a micro-theory that in turn could be used to integrate institutions into interpretivism.

In order to remedy this conceptual gap, I will turn to discursive institutionalism, the aforementioned novel branch of new institutionalism that seeks to unify internal critiques into a discursive-ideational, yet markedly institutional new framework. In terms of the problem of power differentials, the concept of structure embedded in discursive institutionalism can point out who the relevant actors that produce discourse are. An institutional filter for discourse formation shows how experts are situated within an environment characterized by strong formal institutions, and who their relevant audiences are. The expert and the scientific ideas he or she carries alone are inadequate for understanding influence: attention needs to be devoted to how experts persuade. Persuasion is a fundamentally contextual concept as ideas can only be interpreted in their historical context defined by other ideas, traditions, discourses and so on. Institutional-bureaucratic resources are key to understanding the role of experts and their ideas in the bureaucratic environment of national security policy. Using the core concepts of the two approaches, I will lay the basis of my own contribution to the theory in the subsequent chapter, a micro-theory of idea persuasiveness which I will refer to as “contextual suasion”. This terminology serves two goals: it emphasizes my strong reliance on situated agency and discourse, and it also differentiates this micro-theory from its origins in new institutionalism.

2.2. Interpretive meta-theory: Beliefs, traditions and dilemmas

Interpretivism as a philosophically sophisticated meta-theoretical position emphasizes meaning, narrative and historical traditions of behavior in explaining and understanding

policy-making.³⁷ As a common underpinning of critical approaches, it maintains that whenever we explain people's actions, we explicitly or implicitly refer to their beliefs and desires. A creature of the ideational, linguistic and argumentative turns, interpretivism developed as a critique of positivism and scientism, most importantly the rejection of the positivist belief in the possibility of pure experience (see anti-foundationalism³⁸), the correspondence theory of truth (see meaning holism³⁹), a fact-value dichotomy, and the argument that causal laws and not historical narratives and meanings should be the focus of the social sciences. Though it shares most of these assumptions with post-foundationalist IR constructivism, interpretivism boasts both a deeper, richer philosophical underpinning, as well as a more coherent conceptual framework along these shared basic tenets. Once we abandon pure experience or any other arbiter (brute facts, pure reason or the perfect method) for the truth of a statement, interpretivists argue, knowledge becomes provisional and policy cannot be analyzed without devoting attention to the beliefs of relevant elites. Beliefs people use to construct their world, however, can no longer be read off from supposedly objective social facts about them; the beliefs have to be instead interpreted by relating them to their context: other beliefs, traditions and dilemmas (Bevir & Kedar, 2008).

Politics for interpretivists is therefore inherently theory-laden and contextual: agents construct their identities, interests and actions through the theories they hold. Social facts do not fix people's identities, interests and beliefs; consequently we cannot rely on causal laws as a mode of explanation, which, however, does not exclude (quasi-)causal arguments from

³⁷ See e.g. Bevir, 2006, 2010a; Bevir, Daddow, & Hall, 2011; Bevir & Rhodes, 2006, 2010; Daddow, 2013; Wagenaar, 2012.

³⁸ Bevir and Rhodes (2010, p. 43) define anti-foundationalism as "any epistemology that rejects appeals to a basic ground or foundation of knowledge in either pure experience or pure reason". This very much overlaps with constructivist post-foundationalism (see Pouliot, 2007, p. 363)

³⁹ Meaning holism "implies that our concepts are not simply given to us by the world as it is. Rather, we build them in part by drawing on our prior theories in an attempt to categorize, explain, and narrate our experiences." (Bevir & Rhodes, 2010, pp. 43–44)

interpretive explanations (see Fischer, 2003, Chapter 2). Taking this stance, interpretivists move beyond the work of ideational scholars—most notably thin constructivists and most new institutionalists—who, by relying on a positivist epistemology, derive objective social facts not from material but ideational factors as well.⁴⁰ Interpretivism instead focuses on the investigation of the beliefs of actors and the meaning of their actions. It explains these beliefs by locating them in historical traditions and in responses to dilemmas. A tradition captures the historical inheritance against the background of which an individual acts, while a dilemma captures the ways in which people as reflexive agents are capable of modifying this inheritance through the incorporation of new experiences and ideas. (Mark Bevir et al., 2011: 5)

Since it is a common philosophical reference point, interpretivism can mean many things in IR and in political science. In this discussion I rely on a specific version, one that is built upon the collaboration of political theorist Mark Bevir and political scientist R.W. Rhodes. Their particular version of interpretivism, commonly referred to as “British interpretivism” due to the focus of case studies conducted under the theory, has some special characteristics that make it exceptionally suitable for the purposes of this dissertation. First, the approach emphasizes the importance of a bridge across agency and structure, one that can involve an interpretive theory of institutions. Second, scholars have already conducted a number of excellent case studies applying the theory on (British) foreign policy. These empirical studies both strengthen the conceptual framework and aid future application in diverse fields, including nuclear strategy. Third, and most importantly, through its three main concepts—beliefs, traditions and dilemmas—British interpretivism highlights the contingency of policy decisions, the importance of an ideational-discursive context, and the need for

⁴⁰ See most notably Goldstein & Keohane, 1993b; Wendt, 1999.

persuasion when reflexive agents are involved. Through these concepts, British interpretivism highlights the contingency, contestability and sheer diversity of the narratives, beliefs, and expertise that informs policy-making (Bevir et al., 2012). It urges political scientists to reconstruct the way that actors see and experience the world in order to understand the contingent grounds for acting upon it (Wagenaar, 2012, p. 87).

From the interpretivist point of view, the following questions should be raised about the subject of this dissertation, along the aforementioned three main concepts:

- 1) The elite *beliefs* that inform policies and practices. How did US elites conceive of the Cold War conflict and the role of nuclear weapons within national defense? How did they see the role of science in strategy and policy? How did defense rationalists see these issues?
- 2) The *traditions* that underpin these beliefs. What are the traditions that supported the policy approach of the US military, especially that of the Air Force? What tradition(s) was defense rationalism built upon? Did any of these traditions oppose one another? If so, when, how and in what context did they clash/interact (see question #3)?
- 3) The potential change of relevant beliefs and the policies/practices they informed over time. What *dilemmas* led actors to change their beliefs? Where and how did US policy elites conceive of dilemmas related to deterrence and nuclear strategy in general? For example, why was the missile gap seen as a political-military dilemma for politicians, and why was the development of nuclear capable “Polaris” submarines seen as a debilitating dilemma for Air Force commanders? How did defense rationalists see the failures of their research? Did they see these as crucial dilemmas?

In the following, I will discuss these three key concepts in more detail to highlight ways in which they contribute to the understanding of the influence of experts and their policy ideas, but also how they address the problems I identified in my review of thin constructivism/new institutionalism. Note that henceforth, any mention of interpretivism should be understood as a direct reference to *British* interpretivism.

2.2.1. Situated agency

The interpretive approach favors aggregate concepts that reflect its humanist—i.e. agency-centered—and historicist perspective. Interpretivism is above all skeptical of the micro-theory of autonomous individuals (see e.g. those of rational choice theory) with pure experiences. Yet this rejection by no means implies the simultaneous complete rejection of agency—a position common mostly among postmodern scholars (see Heartfield, 2002)—but an added emphasis on (social) contextuality. According to interpretivists, agency is possible, but is always situated in particular contexts, understood as a wide web of beliefs, *not* as reified structures (Bevir & Rhodes, 2006). The individual develops his or her beliefs against a background of traditions, meaning that the individual's ideas about the world are created and formed within a broader social context, “an interconnected cluster of notions about the social and the material world that imparts and sustains a particular sense of meaning” (Kettell, 2012, p. 2). Consequently, when it comes to ideas—understood as shared beliefs—and how actors relate to them, interpretivism also adopts a holistic approach: an idea's fit with other ideas gives it meaning.⁴¹ Reasoning is always local: it takes place in a context of beliefs. There is no possibility for agents to reason outside of this background—unlike in rational choice theory—though the background can vary considerably across individuals, space and time. On the

⁴¹ This conceptualization of ideas stands in opposition with their atomization by positivists.

structural level, the situatedness of agency is captured through the concept of tradition, the set of understandings someone receives during socialization. In terms of agency, this holism highlights the importance of persuasion, especially when involving inter-traditional references, i.e. “translating” meanings across various traditions.

When it comes to experts and their ideas, situated agency is by no means a novel conceptualization. As Merton and Lerner (1951) observed in the 1950s, certain social structures condition the “intellectual equipment” of the expert/scientist, such as his values, his methods, his opportunities, and the social organization of his work. These in turn influence his choices of problems, his techniques of inquiry, his presentation of results, and the cumulative advance of the scientific field.⁴² Nevertheless, despite these societal “boundaries”, there remains room for a certain amount of intellectual free play. Moreover, situatedness influences the acceptability of scientific advice as well.⁴³ The authors bring two interesting examples: Galileo died in defeat, while Kinsey made the best-seller lists. In neither case was scientific validity the exclusive test of social acceptability. This is not to say that the ideas do not matter, merely that they “do not float freely” (Risse-Kappen, 1994), meaning that the ideas do not tell us much about expert influence/role without the idea’s (and that of their carriers) social context—an argument reminiscent of that suggested by Stanley Hoffmann (1977) in his discussion of the links between a US materialist-rationalist scientific culture and the birth of IR as a discipline. What makes the interpretive reconceptualization distinctive is the way it maps the interaction between agency and its social context in which individuals think, through the analysis of traditions and dilemmas that challenge these traditions.

⁴² Merton and Lerner (1951) take this argument to a structuralist extreme by arguing that “the development of knowledge in any society is largely a function of the social role of its men of knowledge.”

⁴³ See also Allan, 2013.

2.2.2. *Tradition*

Tradition, defined as “a set of understandings someone receives during socialization” (Mark Bevir et al., 2011: 11), is a concept akin to structure, paradigm or even discourse: it is about the extent to which the social context influences individual action. Therefore, it represents the structural aspect of interpretivism (Bevir, 2000). As discussed, this influence on individual action patently differs from the autonomy of positivism and the non-autonomy/strong structuralism of postmodernism. Interpretivism understands traditions as a middle road solution that does not weaken the explicit humanism of the approach: traditions are not constitutive neither of the beliefs actors come to hold, nor of the actions they undertake. By understanding traditions as a first, and not a final influence on agents, people still remain “creative agents” who have the capacity to reason and act innovatively against the background of a tradition (Bevir et al., 2011: 13).

Traditions are a different and more general concept than practices. Practices are above the micro-level in interpretivism: they are defined in opposition to institutions, structures and systems. Bevir emphasizes the iterative aspects of practices in his definition similarly to Pouliot and Adler (2011a),

a practice is a set of actions, perhaps a set of actions that exhibit a pattern, even a pattern that remains relatively stable across time. Actions and practices are the main grounds on which we ascribe beliefs to people: we ascribe beliefs to people in order to make sense of their actions. (Bevir, 2010, p. xxxiv)

Since practices are the reaction of others, they can constrain people in performing actions successfully. However, like traditions, they act as a contingent constraint, not an essentialized object like in the practice turn. Moreover, though they may limit action, practices cannot explain them because people act for their own reasons, but they can be the consequences of

actions, and the effect of actions often depends on the responses of others. Therefore, if we equate practices with the set of actions by which others respond to an action, then that practice constitutes the consequence of the act by definition.

This line of reasoning is derived from the tenet that interpretivism explains action by reference to the beliefs and desires of the relevant actors, *not* the practice itself, though beliefs can still be about a practice. In other words, interpretivism clearly privileges beliefs as a conceptual category to practices, and does not see them as “the stuff of politics”⁴⁴ (Adler & Pouliot, 2011a; cf. Andersen & Neumann, 2012). Crucially, interpretivism also denies the distinction between practice and discourse: for interpretivism, discourse is the expression of beliefs embedded in practice. As such, the context of discourse matters. Such embeddedness implies that a distinction between discourse and practice is not possible. This does not imply that discourse should be seen as practice—as it is conceptualized in the practice turn (Adler & Pouliot, 2011c)—but more the other way around, i.e. a clear preference for discourse as an analytical concept. This point also distinguishes interpretivism from traditional discourse analysis, which focuses on the language that is used and enables a differentiation between discourse and practices. Discourse then becomes a distinct, separate object of inquiry, leading to the analysis of the surface (what is being said) and not necessarily what is meant. For interpretivists, however, discourse *is* practice.

While practices are objects distinct from each other (but which still do *not* have distinct boundaries), a tradition links practices in a particular way: a specific relationship must

⁴⁴ Unlike Adler and Pouliot (2011b), interpretivists use practices as models, heuristic devices for organizing their data. For them, practices are not discrete chunks of social reality: they do not have boundaries that make them discrete entities. Limits for practices are therefore set pragmatically, justified by the purposes of their analysis. (Bevir & Rhodes, 2005b, p. 27). Put differently, it is political scientists who separate particular practices in a way that suits their research interests. However, these interests and the role of practices in the analysis need to be made explicit in the methodology applied (Andersen & Neumann, 2012b).

exist between beliefs and practices if they are to make up a tradition. First, traditions must be made up of beliefs and practices that are passed on from teacher to student from generation to generation. Continuity can best be captured via the themes developed and passed on through time, which are adapted and expanded by the pupil if needed. Second, traditions must embody suitable conceptual links: the beliefs and practices passed on must display a minimal level of consistency. Crucially, even though beliefs inherited must possess temporal and conceptual links, their substantive content is immaterial: being scientifically sound, for example, is more about process than content: one has to meet certain standard that carriers of the scientific tradition transfer from teacher to student (cf. Kuhn, 1996). Meaning for interpretivism is constituted by links to other concepts, not by a correspondence between a concept and its object; so the focus of analysis should be the way people communicate and relate concepts to actions. From this understanding of language and the evolutionary concept of a tradition it follows that concepts have their history, and that “changes cannot be construed as an ever-more accurate approximation to a fixed reality” (Kratowil, 2011, p. 37)—a narrative common in contemporary treatise of the intellectual history of defense rationalism.

A tradition is a network of concepts with already established and inherited connections: it helps to create meanings and guides action through enabling a coherent and cohesively link among beliefs. Or as Jutta Weldes put it:

meaning is created and temporarily fixed by establishing chains of connotations among different linguistic elements. In this way, different terms and ideas come to connote or to ‘summon’ one another (...) With their successful repeated articulation, these linguistic elements come to seem as though they are inherently or necessarily connected and the meanings they produce come to seem natural, come to seem an accurate description of reality. (Weldes, 1999, pp. 98–99)

Weldes' words need a caveat though: unlike with discourse in strong versions of postmodernism, traditions do not determine or limit either the actions that people can perform or their beliefs and desires. Instead, interpretivism maintains that traditions serve as a first "go to" solution for actors when relating to their environment: traditions are *not* consistent or unified patterns of behavior, but sets of beliefs that frame political ideas and actions (Gaskarth, 2012, p. 2). They can still be a powerful guide for unreflexive agency, since, as Berger and Luckmann show, passing on a belief—a norm in their case—lends it an air of objectivity: "The 'There we go again' now becomes 'This is how things are done.' A world so regarded attains a firmness in consciousness" (Berger & Luckmann, 1966, p. 52). Therefore, though not deterministically, all beliefs and practices must have their roots in tradition, whether they are "aesthetic or practical, sacred or secular, legendary or factual, pre-modern or scientific" (Bevir et al., 2011, pp. 14–15). Interpretivism's idea of tradition differs, therefore, from scholars who see it as a term for customary, unquestioned ways of behaving.

2.2.3. *Dilemma*

Dilemmas are the component that brings (situated) agency and structure (tradition) together. A dilemma is any experience or idea that conflicts with someone's beliefs and so forces them to alter the beliefs they inherited as tradition (Bevir, 2010b, p. xxxvii). The emergence of dilemmas can thus lead to changes in policies, ideas and traditions. "When material or ideational conditions are such as to be no longer plausibly explained by a prevailing worldview" (Kettell, 2012, p. 2), actors engage in a creative process of explanation to construct new rationalities for a more viable account of events that they perceive as no longer challenging to their beliefs (Daddow, 2013; Kettell, 2012). Thus, dilemma induced policy change "grows out of shifts of context and also helps to produce them" (Rein & Schön, 1993,

p. 155). Initially, actors assess and respond to dilemmas based on the traditions they hold and see as relevant, since these traditions always serve as a first influence on people (cf. Weldes, 1999). However, if the tradition does not offer a suitable frame for resolution, actors become reflexive creative agents able to amend or change their beliefs in order to cope with the dilemma.⁴⁵ This creativity may amend, fundamentally change, or discredit a tradition, forcing actors to “migrate to another”⁴⁶ (Bevir, 2000, p. 227).

Dilemmas are not objective pressures from the world. People change their beliefs in response to new ideas about the world that they come to hold as true, yet this acceptance does not depend on whether the idea reflects “real” pressures like for instance the installation of intermediate range ballistic missiles on Cuba in 1962, or “misperceptions” like the missile gap hysteria in the late 1950s. Or, to be more precise, acceptance of new ideas is independent of whether the dilemma reflects pressures that scholars of international relations believe to be real (cf. misperceptions in Jervis, 1976). In this sense, the widely shared missile gap was as real as any challenge from the Soviet bloc that can be *retrospectively* supported by some measurement of the military balance. Their subjective and intersubjectively shared elements render these dilemmas objective for the actors acting upon them. Objectivity does not hinge upon the categories that social scientist apply to dilemmas: registering these situations as dilemmas is contingent on beliefs, not some external, scientific benchmark.

Though dilemmas frequently arise from people’s experiences, they can also be the result of theoretical or moral reflection. As Bevir et al. (2011, p. 16) note, “the new belief that poses a dilemma can lie anywhere on a spectrum from views with little theoretical content to

⁴⁵ Traditions can be conceptualized as similar to rules of a language game: individual interpretations depend on shared traditions for meaning as a first step. However, when a dilemma is encountered, and traditions are contested, interpretations—projected through discursive strategies—come into play.

⁴⁶ This narrative of change in interpretivism echoes Kuhn’s paradigm shift. The difference is that traditions are always a soft constraint on people.

complex theoretical constructs only remotely linked to views about the real world.” Furthermore, unlike “chokepoints in history” for historical institutionalism⁴⁷, dilemmas do not necessarily originate in an external systemic shock that agents perceive as a dilemma, but can be the result of creative agency that can induce both incremental and revolutionary change.

When it comes to dilemmas and creative agency, interpretivism is exceptionally suitable for research on *discursive strategies*, which refer to “ways in which agents seek to frame and present particular themes, issues and arguments with a view to shaping the context of political debate (...) in a manner that is considered to be most conducive to the attainment of their objectives” (Kettell, 2012, p. 3). Consequentially, the aims of a discursive strategy are multifaceted. First, the strategy provides a common interpretation of problems and challenges.⁴⁸ Second, it offers a coherent explanation of both goals and ambitions. Third, it seeks to justify and legitimize action for the pursuit of these ends. Fourth, it mobilizes support, while at the same time undermining, challenging or otherwise discrediting opposing arguments (Kettell, 2012, p. 3).

A discursive strategy, Kettell (2012, p. 3) explains, “does not exist separately from, or adjacent to, the ‘real’ world (or at least the way in which this is perceived by those the speaker aims to persuade), but is inextricably intertwined with the course of politically salient events”. Though genuine beliefs and instrumental use—i.e. discursive strategies as a reflection of material interests—are again hard to differentiate, when it comes to discursive strategies they nonetheless possess a “mutually constitutive” relationship with the conditions they narrate; “an ideational dimension that is simultaneously shaping, and being shaped by,

⁴⁷ See e.g. Goldstein, 1988; Hall, 1989b; Pierson, 2004; Sikkink, 1991; Skocpol, 1979; Thelen & Steinmo, 1992; Thelen, 1999, 2003.

⁴⁸ The success of a frame does not necessarily entail specific policy action, but could also mean a new kind of interpretation of a problem. These new interpretations are what make competing language games possible in the Wittgensteinian framework.

the material world as well as alternative and competing ideas” (Kettell, 2012, p. 3). Note that this close relationship also renders discursive strategies highly unstable, since for them to be persuasive, they must present a plausible relationship to the actual conditions to which they refer; conditions that are always changing. This fluctuating referent can potentially lead to what Kettell (2012) calls “plausibility gaps” between the explanatory power of the projected discourse and the “real” situation “on the ground”. Such a gap may create a dilemma that challenges traditions that the original, by then defunct discursive strategy represented. Such policy controversies then offer an additional entry point for reflexive agency able to “bridge the gap”.

Nuclear defense policy is an interesting case when it comes to policy controversies for reasons that I have already touched upon. Deterrence theory, as the basis of discursive strategies, is but a particular interpretation/representation of “the world out there” that comes with its own rules. However, empirical support for the theory’s implications is not available in the positivist sense: the success of deterrence is supported by a non-event, the lack of nuclear confrontation between the superpowers. Yet falsehood is still possible if the world as revealed by the theory fails the test of truth associated with it. Deterrence theory derives its “truth value” from its compatibility with the world that it helps to constitute. Still, it is important to emphasize that the “real” world is not available to discipline all theories in the empiricist sense.⁴⁹ Consequently, deterrence theory-based reasoning is open to dilemmas induced either by theoretical challenges and/or reality-expectations controversies. What makes the theory and the experts that carry it exceptionally interesting for research is that, due to the lack of “hard evidence”, dilemma resolution within the tradition necessarily always has to be to a large extent abstract. How defense rationalists and other carriers of deterrence theory then

⁴⁹ See Mauw & Phillips (1995, pp. 325-326) for the language game-based logic behind this claim.

counter these controversies by constructing persuasive arguments that not only build on the tradition itself, but are also sensitive to other, external traditions is therefore the central question for my application of interpretivism. Crucially, this emphasis on tradition-influenced rhetorical decisions—discursive strategies—further differentiates both interpretivism in general, and contextual suasion in particular, from the logic of practicality.

So in order to resolve a dilemma, actors need to create an amended or brand new discursive strategy that is capable of offering a credible and legitimate account of the changes/challenges that have occurred (the dilemma), thereby improving or renewing the plausibility of the account offered within (the solution). This move can involve actors choosing and incorporating aspects of various existing and overlapping traditions, which can lead to a renewal of an existing tradition or to a completely new one. The decision as to which discursive element from which tradition to draw upon is not predetermined, but is conditioned by the situatedness of agency: the perceived political context, and the constructed strategic interests of the time (Kettell, 2012, p. 4). Factors that thus shape these decisions include the effectiveness of prior arguments deployed, the balance of internal convictions, the perceived state of public and political opinion, as well as the actual traditions that are available to draw upon. (Kettell, 2012, p. 4) Crucially, perception pertains to the agent him/herself: the choices in constructing the elements of a persuasive move—or a discursive strategy as a series of moves—is dependent on the actor's *interpretation* of the context: on the web of beliefs that provide the context of the dilemma. This interpretation in turn is influenced, but not constituted by the tradition the individual holds, completing the reflexive relationship between dilemma-resolution and traditions. Despite these established links, the rhetorical choice element in persuasion (i.e. the construction of discursive strategies) is rather underemphasized in interpretivism, where the importance of interpretation is instead captured on the

epistemological level—see the representational bias in Pouliot’s work as comparison—partly due to the fact that interpretivists are still very much engaged in deep ontological and epistemological debates at the detriment of theory application.

To reiterate, according to interpretivists, when actors are faced with a diverse audience, as it is the case in policy-making, they might be forced to establish links between theirs and the audience’s traditions as these traditions provide the context discursive strategies need to navigate. Bevir (2000, p. 228) argues that even if two traditions use different concepts, they still may overlap in ways that provide people with entry points. But even if two traditions do not overlap at all, the adherent of one can observe the practices of the adherents of the other and so learn the intersubjective meaning of concepts embodied in that particular tradition, as was the case with defense rationalists trying to communicate with their military patrons.

Grand narratives of the evolution of deterrence theory tell us that scientific language, a major component of the defense rationalist tradition, invokes authority and societal legitimacy in policy debates that are highly technical, such as nuclear strategy. Referring to the broader scientific tradition therefore offers an acceptable, or at the very least relatable, narrative component for a discursive strategy aimed at a given deterrence-related policy dilemma, be it theoretical, normative or purely pragmatic/experience-based. However, as I argue repeatedly, science does not offer an objective, value neutral benchmark for policy-making. To reflect this common interpretive position, whenever talking about scientific arguments and experts/scientists as policy actors, I rely on a non-instrumental theory of science (see Allan, 2013 for more), meaning that science is defined empirically as everything that members of the scientific community *and* policymakers thought counted as science at the

time of the investigated period, rendering Science with a capital ‘S’ a historically contingent construct.

An example for the use of scientific language within discursive strategies is so-called boundary work, the use of scientific ideas to establish boundaries between legitimate (science) and illegitimate (non-science) beliefs, with the aim of bolstering the authority of the former. A frequent form of boundary work is the use of scientific discourse to delegitimize other beliefs (including policy alternatives) on the basis that they are insufficiently scientific, or even non-scientific (Gieryn, 1999; Jasanoff, 1990). This kind of boundary work is characteristic of defense rationalists when dealing with traditional military strategy-making (i.e. unscientific, experience-based intuition). But it also applies of some of the internal debates within the community between ahistorical formal theorists at the RAND Corporation like Albert Wohlstetter or Herman Kahn and the “unscientific” historical approach pioneered by Bernard Brodie. From the empirical definition of science it follows that what counts as scientific is historically contextual, and science itself is used for various political and social purposes.⁵⁰ In fact, it is again an interesting question for future research why scientific language can be so readily used for boundary work against other discourses in the American context, for instance as it happened during the McNamara years. Any interpretive approach aimed at understanding the institutionalization and longevity of defense rationalism therefore needs to assess such strategies by relevant parties, including the analysts who rely on scientific language—from methods to tropes and even presentation—during the resolution of policy dilemmas.

⁵⁰ For example, as Allan (2013) notes, in the 16th and 17th centuries, science was predominantly defined as skeptical and empirical. It was seen in opposition to a dogmatic and metaphysical religion. Later on, science defined itself in opposition to engineering or mechanics. Boundary work was always used to give political power to scientific discourses. In the post-war context, ideas about physics dominated the scientific discourse—partly due to the nuclear revolution—while a parallel revolution (also influenced by physics) went on in economics (Canterbery, 1980; Fusfeld, 1994; Mirowski, 2000). This kind of boundary work that predates defense rationalism facilitated the legitimatization and translation of defense rationalism itself.

Dilemmas that challenge fundamental traditions on multiple levels are exceptionally important for interpretivism as they can truly lead to a loss of orientation for policymakers. Not being able to draw upon an established tradition to resolve any or all aspects of such a dilemma necessitates a search for new traditions and ideas to draw upon. Such occurrences facilitate the influence of the carriers of these new ideas on policymakers, counteracting potential incentives for instrumental use on the side of the policymaker. The degree of intensity in-between various dilemmas is well illustrated by Martin Rein and Martin Schön's (1993) distinction between policy disagreements and controversies. As the authors argue, when people disagree about a policy issue, they may be still be able to determine who is right after a survey of available information. Policy *disagreement* in such cases arise within a common frame and can be settled—in principle—by appeals to established rules of the game (i.e. available traditions). To give an example, initial Air Force policies for using the atomic bomb did nothing else but apply WWII strategies to the new weapon, essentially resolving a dilemma about the use of the bomb within the well-established airman tradition (see section 5.1). Policy *controversies* on the other hand cannot be settled by “recourse to facts alone, or indeed by recourse to evidence of any kind. Because they derive from conflicting frames, the same body of evidence can be used to support quite different policy positions” (Rein & Schön, 1993), meaning that available traditions cannot provide a single convincing narrative for the situation—if any at all. As I mentioned earlier in the chapter, deterrence theory is prone to such composite dilemmas due to imaginary nature. As an illustration of this characteristic, I will later discuss an example for such a controversy with the dilemma on counterforce strategies (see Chapter 7).

2.2.4. Interpretivism and institutions

Interpretivism is a creature of the ideational turn. It investigates beliefs, meanings and ideas in order to understand how actors make sense of the world around them. As a rejection of materialism, it feeds into the reflexivist-materialist debate, and joins the reflexivist camp epitomized among others by constructivists and ideational new institutionalists.⁵¹ Yet, due to its strong philosophical humanism and anti-positivism, interpretivism is highly critical towards both approaches. Whereas constructivists are usually charged with a dated reliance on a positivist epistemology, institutionalists are accused of rigid structuralism—something that they share with postmodernists—and using a vague definition of institutions (a problem resulting from debates within the school).

In this section, I will revisit these criticisms and argue that interpretivism needs to incorporate a form of institutionalism as well as a corresponding micro-theory in order to be more versatile in explaining expert idea influence, since, as some critics note, despite its rich philosophy, interpretivism so far has been mostly reserved to the analysis of British politics (e.g. Bevir et al., 2012; Daddow, 2013; Gaskarth, 2012; Kettell, 2012). This short summary of the gaps in interpretivist theory will serve as a link to my subsequent analysis of discursive institutionalism, the branch of new institutionalism that I see as compatible with the requirements that interpretivism raises—partly because DI links the internal critiques within new interpretivism that address the very same problems that interpretivists stress. By drawing attention to interpretivism's ambiguous relation with institutions I also wish to highlight the pivotal role discursive institutionalism can play in providing an interpretivist and markedly institutional framework for policy analysis.

⁵¹ See e.g. Checkel & Moravcsik, 2001; Finnemore, 1996; Goldstein & Keohane, 1993a; Katzenstein, 1996; Wendt, 1999.

Institutionalism is an obvious target for interpretivist criticism since institutions provide a popular contender for structuralist theorizing. As I argued earlier, institutionalism holds interest for the topic of this dissertation because of its frequent reliance on (expert) ideas⁵², as well as for the heavy presence of (formal) institutions in national defense policy-making that shape possibilities for action within the empirics of this analysis. The main claim of new institutionalism is that institutions broadly defined have explanatory power because they either constrain or constitute practices. However, critics point to the resulting variation between often vague definitions of institutions across the three competing schools: historical, rational choice and sociological institutionalism (Hall & Taylor, 1996). Instead of taking institutions as given, static structures external to agents, interpretivists call for disentangling institutions and problematizing their construction and their change: “how people create, recreate, and change their beliefs and actions in ways that produce and modify institutions” (Bevir, 2010b).

To reiterate, institutionalist definitions can be grouped into two general categories. The first, common to both rational choice and historical institutionalism, understands institutions as stable, fixed structures, defined as operating rules or procedures that govern the (inter)actions of individuals who fall under their purview. This narrow and deterministic interpretation of institutions brings us back to positivism: allegedly objective structures prescribe or cause individual action. What institutions mean for the people who fall under them is not problematized, thereby institutionalists avoid contingency, controversy, conflict and creative agency. The resulting institutionalist theory is both deterministic and operates under a status quo bias: since institutions are the primary explanatory variable, they themselves must be stable. However, institutions obviously change. Ideas are therefore often

⁵² See e.g. Finnemore, 2011; Hall, 1993; Sikkink, 1991.

used to account for change—both revolutionary and incremental—yet institutionalism so far failed to incorporate ideas into its general framework, using them “to help other forms of explanation”, hence “ideas become desiderata, catch-all concepts to explain variance” (Blyth, 1997, p. 231).

In the other interpretation—common to sociological institutionalism—institutions are defined in their cultural context, i.e. they include cultural factors and beliefs. Through interpreting the meaning of institutions, the resulting institutionalism still remains structuralist when explaining individual action. Consequently it is still deterministic and reifies institutions. Moreover, if we take the logic in a causal explanatory sense, then the problem is that the definition of institutions is simply too thin: it incorporates beliefs so that they themselves cannot determine individual beliefs and consequent action without being circular. More importantly, this cultural interpretation of institutions seems to suggest that institutions do not fix beliefs and actions like they do in the previous institutionalist conceptualizations. This position, however, comes with a catch: institutions cannot anymore be taken as a given (Bevir, 2010b). One must instead ask the very same questions that a positivist definition of institutions avoids: how are beliefs and actions created, recreated and changed in ways that reproduce and change institutions (Bevir et al., 2011, p. 9)? However, if we do no longer take institutions as given, the theory ceases to be institutionalist in any significant sense.

Yet this interpretivist critique is not an outright rejection of institutions as an analytical category. It is more a general critique of rigid structuralism, and in this sense it is also targeted against postmodernists who reify discourses as opposed to institutions (Bevir et al., 2011, 2012; Bevir & Rhodes, 2006; Bevir, 2010b). The conclusion of interpretivists instead is that institutionalism needs an integrated concept of institutions, as well as a micro-

theory of individual action since outcomes—the result of actions—cannot simply be traced back to structural rules embodied in institutions, traditionally conceived. Rather, outcomes would be contingent on how people understand institutions, and therefore an engagement with individual beliefs is no longer avoidable (Bevir et al., 2011; Bevir, 2010b). Rational choice was an early contender for a micro theory⁵³ *while* trying to keep institutions as a central analytical category—understood there as equilibria—for both rational choice and historical institutionalism. However, due to its positivist roots and its reliance on an autonomous agent and external preference construction, rational choice theory is incapable of fulfilling this role. Thus, with a rationalist micro-theory, a direct appeal to institutions remains incomplete. In addition, any appeal to institutions would have to be justified anew.

Ideational constructivism in turn is frequently criticized by interpretivists for its scientific realism, i.e. the reliance on a positivist epistemology, especially on a correspondence theory of language. Many scholars from this strain—often overlapping with new institutionalism, see for instance the collaboration of Sikkink and Finnemore (2001)—have highlighted the role of norms and ideas in policy-making, arguing that norms-as-intersubjective-ideas, not only material capabilities, shape foreign policy. Though invaluable for intra-disciplinary debate, when it comes to empirical research, such studies are more often than not limited to the comparative testing of ideational and material “variables”. These analyses reify norms (ideas) instead of material capabilities by arguing that once intersubjectively created, common norms function as a structural constrain on individual action.⁵⁴

⁵³ Bevir, Daddow and Hall (2011) suggest that rational choice theory had a large influence on institutionalism precisely because it offers a micro-theory about individual preferences and actions without challenging the theory’s positivist foundations.

⁵⁴ For a prominent example, see Nina Tannenwald’s work on the nuclear taboo (Tannenwald, 1999, 2005, 2007).

The aforementioned agency-based approaches in mainstream ideational constructivism, some dealing specifically with experts⁵⁵, acknowledge that “ideas do not float freely”: they need to be carried by agents (Risse-Kappen, 1994). These studies, however, once again juxtapose ideas and material interests. In fact, they remain largely based on self-interest, as self-interest is still considered to be the primary determinant of behavior (Fischer, 2003, p. 22). Ideas help to fill in gaps that purely interest-based approaches are unable to deal with: they add to rationalist models rather than challenging them, thereby enabling, if not a consensus, then at least a dialogue between materialism and reflexivism (see constructivism’s “middle ground” metaphor in e.g. Adler, 1997; Wendt, 2000).⁵⁶ The crucial problem that interpretivists stress is that interests are shaped by ideas, so the two cannot be treated as separate. More precisely, interest is a subjective assessment of the actor’s environment based on an idea of material self-interest—interests *are* ideas.

The correspondence theory of language and the Cartesian division between the material and the ideational that I have touched upon determines how these scholars see expert ideas: though ideas and their carriers take center stage in explanation, their persuasiveness for other actors involved in the policy process is not problematized. Instead, persuasiveness is merely assumed through reference to reified structures, most notably science as an arbiter in policy debates.⁵⁷ Yet, as I argued repeatedly, once one sees policy through an ideational lens, the role of language and discourse cannot be excluded from ideational explanations. As interpretivism in particular explains, problems that policymakers deal with cease to have

⁵⁵ See esp. Haas & Adler, 1992; Haas, 1992; Mitchell, Herron, Jenkins-Smith, & Whitten, 2007; Sabatier & Jenkins-Smith, 1994; Sabatier, 1988; Sabatier et al., 2011.

⁵⁶ The idea of an interplay between ideas and interests can be traced back to Max Weber’s writing who wrote: “Not ideas, but material and ideal interests, directly govern men’s conduct. Yet very frequently the ‘world images’ that have been created by ‘ideas’ have, like switchmen, determined the tracks along which action has been pushed by the dynamic of interest” (Weber, 1948, p. 280).

⁵⁷ Normative convictions or bureaucratic interests could be mentioned as examples for alternative points of reference in resolving policy debates.

objectively identifiable underpinnings and their interpretation becomes the focus of analysis—interpretations that are underpinned by beliefs anchored in ideas about the world. The resulting fluidity draws attention to the construction of policy frames, making an analysis of the policy discourse inevitable.

In spite of its rich philosophical underpinnings, interpretivists efforts have been lackluster in providing empirical studies, those available mostly enriching British interpretivism pioneered by the cooperation of Mark Bevir and R. W. Rhodes (Bevir & Rhodes, 2006, 2010). The previous short summary highlights how interpretivism critically engages other ideational approaches and seeks to fill in the gaps they have left behind. Here, I am arguing for a next logical step: a synthesis of institutionalism and humanistic interpretivism. An interpretive institutionalism should follow the suggestions of interpretivists and incorporate meanings and conceive of institutions as a product of actions, informed by the contingent and varied beliefs and desires of the relevant actors. The obvious issue with an interpretive institutionalism is keeping the institutional “edge” of the approach while simultaneously problematizing the origin and change of institutions. If institutions are not pre-existing stable structures, then what makes an explanation institutionalist?

The three main concepts of interpretivism explore the social context of individual action: belief, tradition and dilemma. This context is crucially important when investigating the influence of expert ideas: ideas should not be judged on their own, but in comparison to their environment, including other ideas. Institutions are also elements of this context as they for example shape power differentials among actors in the policy discourse. As I will show in the next section, discursive institutionalism—unlike its three cousins—does not overemphasize the constraining effects of institutions, instead positing them as “enabling

constructs of meaning, which are internal to ‘sentient’ (thinking and speaking) agents” (Schmidt, 2008). Institutions are simultaneously treated as given (as context) and as contingent (as the result of actors’ actions). Institutions for DI are defined somewhat narrower than in sociological institutionalism. They have ideas, practices, traditions embedded in them, therefore they represent a stronger form of structure than a tradition. They structure the discourse that transmits ideas and enables as well as constraints possible discursive strategies, which in turn makes them central to an interpretivist explanation.

2.3. Linking ideas and institutions: Discursive institutionalism

Discursive institutionalism, which I frame as an interpretive approach to institutions, attempts to address two interrelated problems: it seeks to rely on discourse—seen as indivisible from ideas—to explain change, while retaining an institutionalist ontology. (Schmidt & Radaelli, 2004; Schmidt, 2008, 2010, 2012) For DI, discourse is a term that

encompasses not only the substantive content of ideas but also the interactive processes by which ideas are conveyed. Discourse is not just ideas or ‘text’ (what is said) but also context (where, when, how, and why it was said). The term refers not only to structure (what is said, or where and how) but also to agency (who said what to whom). (Schmidt, 2008, p. 305)

This reconceptualization of discourse along basic tenets of interpretivism enables DI to delegate a larger role to agency in its explanation of institutional change, thereby making it dynamic as opposed to the static, structural explanations that plague the three original schools of new institutionalism. Here, institutions enter as context: policy is not just about the ideas and the texts that carry them, but also about the institutional environment that shapes their communication. Crucially, DI does not overemphasize the constraining effects of institutions, but also posits them as

enabling constructs of meaning, which are internal to ‘sentient’ (thinking and speaking) agents whose ‘background ideational abilities’ explain how they create and maintain institutions at the same time that their ‘foreground discursive abilities’ enable them to communicate critically about those institutions, to change (or maintain) them. (Schmidt, 2010, p. 4)

Within new institutionalism, DI stands closest to sociological institutionalism in its treatment of ideas. The main difference, as the school’s pioneer scholar, Vivian Schmidt (2008) notes, is that ideas in DI are no longer in their “cultural” context⁵⁸, but in their “meaning” context as well, leading to the analysis of a different kind of institutions. For DI, institutions are no longer external rule following structures, but are rather simultaneously structures and constructs internal to agents whose “background ideational abilities”⁵⁹ within a given meaning context explain how institutions are created and exist, as actors use these abilities to make sense of the world and act upon it. These abilities are not reducible to individuals but are intersubjective. Background ideational abilities differ from background knowledge understood as unquestioned ways of behaving (Adler & Pouliot, 2011c; Hopf, 2010); rather, they share their characteristics with traditions, as understood by interpretivists, in that they are an “influence on people”, not constitutive of their beliefs (Bevir, 2010b). They guide and situate institutional behavior, but when under challenge, they can be adjusted by reflexive agents.

“Foreground discursive abilities” in turn explain how institutions themselves change and persist. They refer to peoples’ ability to reflect on and think outside the institutions in which they continue to act, critically approach and problematize them, to *persuade* themselves as well as others to change their beliefs about their institutions (background ideational abilities), and then take action to change them (Schmidt, 2010, p. 16). Foreground

⁵⁸ I.e. institutions as coterminous with culture, see Finnemore, 1996; Katzenstein, 1996; and also the grand narrative literature.

⁵⁹ Searle (1995, pp. 127–147) refers to such abilities as know-how, human capacities and dispositions.

discursive abilities manifest themselves in discursive strategies, ways in which agents “seek to frame and present particular themes, issues and arguments with a view to shaping the context of political debate in a manner that is considered to be most conducive to the attainment of their objectives” (Kettell, 2012, p. 3). The representational practices that foreground discursive abilities carry are crucial sources of power: they entail power relations and therefore become sites of contestation (Weldes, 1998). In this conceptualization, the political power and influence of experts fundamentally differs from that of “traditional” actors of bureaucratic politics: they primarily exert influence on representational practices through their (expert) ideas, which frame the problem itself, construe power relations by assigning policy roles, list acceptable policy practices and, of course, define the universe of possible future policy problems. Therefore, a discursive institutionalist approach to policy-making also implies that experts are not only interested in the success of particular policy proposals (traditionally understood as implementation), but also in the dissemination of their policy beliefs.

The shift from structure to meaning and its construction gives discursive institutionalism an analytical edge over other institutionalisms in answering the three central questions about ideas (selection, influence and institutionalization), and makes it suitable for providing the basis for an interpretive understanding of the role experts and their ideas play in policy-making as it shares its analytical focus between agency and structure. Foreground discursive abilities for Schmidt “refer to peoples’ ability to think outside the institutions in which they continue to act, to talk about such institutions in a critical way, to communicate and deliberate about them, to *persuade* themselves as well as others to change their minds about their institutions, and then take action to change them” (Schmidt, 2010, p. 16, emphasis added), for example through “discourse coalitions” (Hajer, 1993, 1995). Whereas background

ideational abilities highlight how naturalized ideas—which are turned into rules and may be embedded in institutions—constrain and guide behavior, foreground discursive abilities show how reflexive agents can challenge these.

Actors as proponents of policy ideas try to convince their audience (the “public”) about the rationality of their idea vis-à-vis competing ideas. As rationality itself depends on the context embodied in the policy discourse, the rationality of an idea can be demonstrated through two methods: either a strategy of moves within the game OR a change in the rules of the game/the creation of a different game—a method that requires reflective agents.⁶⁰ This distinction between the two avenues of policy change are already visible in Searle’s (1995) work where he discusses institutional change. Change, he argues, is not necessarily unconscious, as conscious agents can decide to use institutions differently, thereby denaturalizing institutions-as-structures and starting to talk about them as distant objects. Policies themselves do not exist apart from the words that we use to characterize them, they exist “only when we put our intentions into words and frame courses of action, or plans, to achieve them” (Onuf, 2001, p. 77). If violence is not an easy solution, performative language is required to “get what we need”, and in such a discursive environment, even purely material interests-based positions require textualization—for example through the strategic use of ideas—in order to demonstrate their superiority. Policy problems are therefore discursive constructs and idea carriers such as experts do not only give technical answers to identifiable policy problems, but they frame⁶¹ the problem as well (cf. Haas, 1992), while other actors act

⁶⁰ External shocks, like those commonly analyzed by historical institutionalists, can induce change in policy/rules of the game, yet their interpretation still requires the presence of agency.

⁶¹ Frames are a concept that can be traced back to the work of Clifford Geertz, they are “a coherent set of stereotypical expectations for a recurrent situation” (Chilton, 1985c, p. 148). They are crucial elements of discursive strategies and can be revealed through the stories that participants tell about a policy situation. These problem-setting stories are frequently based on generative metaphors, and they link “causal accounts of policy problems to particular proposals for action and facilitate the normative leap from ‘is’ to ‘ought’” (Rein and

as “readers” of the policy as “text” (Bevir, 2010; Phillips et al., 2004). Hence the same act (speech or other) can be imbued with different meaning, with varying levels of rationality assigned.

As DI maintains, idea-driven policy change within this policy realm can be best analyzed through discourse. But accepting the discursive-argumentative construction, permanence and transformation of policy still necessarily returns us to the question of just why some arguments are more persuasive than others? How should they be constructed? How should they be communicated and by whom? In light of the three major problems about idea influence, these questions sound familiar: they invoke the issue of selection, influence and institutionalization. DI was successful in linking non-structuralist institutionalism to interpretivism with taking ideas out of their culture context, and shifting the focus on the discourse that communicates them. However, fully understanding ideational influence also necessitates an interpretive micro-theory of persuasion—as of now missing from DI— that builds on the above conceptual tenets.

As interpretivists maintain, policy-making cannot be explained and understood without analytical reliance on the policy discourse. Policy-making is “an interpretative activity in which different, and often contradictory claims are made as to what is the case to be judged, compared, combined and acted upon”, thus “the definition of a policy problem (...) cannot be taken for granted” (Hajer, 1995, p. 22). It is therefore a subjective enterprise that is inherently bound by the shared language used to communicate and give meaning to actions. Thus, the previously used definition of experts needs an addendum: experts are understood as a particular group of intellectuals with specialized, policy-relevant knowledge, who are

Schön's, 1993, p. 148). Some frames clearly represent particular traditions, especially so in the military bureaucracy where services compete along their own historical tradition. To rephrase a line from *The Caine Mutiny* (Dmytryk, 1954) for simple illustration: there is the right way, the wrong way, and the Navy way.

engaged in *assigning meaning to the policy environment*. As *policy* experts they possess direct institutional access to policy-making and rely primarily on their authority as *rational* and *objective* scientists—these being intersubjective categories—when navigating the policy nexus, while their policy suggestions manifest in their expert ideas. Ideas in turn are shared beliefs with specific means-end solutions and policy framing tools that act as cognitive (what is rational) and/or normative (what is right) heuristic devices when making sense of political decision situations, such as dilemmas. Policy is simply understood as “the instrument needed to make a reasoned choice in a specific situation” with reasoned choice meaning “all human actions based on deliberate comparison of alternative possible outcomes in terms of known standards or principles” (Meehan 1971 quoted in Onuf, 2001, p. 79).

Agency is always situated, therefore the rationality of a given action in the policy realm belongs to a particular context. This context can most readily be understood through the Wittgensteinian language game metaphor, often used by critical linguistic constructivists (e.g. Fierke, 1998). Context defines the identity of players, their relationship and also what should be done with material capabilities, and the consequences of doing so⁶² (Fierke, 1996, p. 477). Hence “rationality” and “objectivity” need to be established in relation to the environment and other actors as guided by the rules of the game, and the overarching grammars that define the possibilities for meaning and action. Within the realm of policy-making, actors’ interests, preferences and their perceptions of their environment are not fixed, but are constituted and

⁶² Deterrence theory, for example, lists multiple types of deterrence, such as deterrence by denial vs. by punishment, or extended vs. direct deterrence. These embody different language games that share family resemblances through an overarching grammar of nuclear deterrence. Moves in a game, such as the speech act of threatening with nuclear strikes, are bound by the shared grammar constitutive of the games, yet their meaning and content differs between individual games. As mentioned earlier, for an actor to promote a favored outcome, a strategy as a series of moves is necessary within the game. How this strategy is developed not only depends on the choices of the individual player, but also the context. This context can imbue the same act with different meaning. Threatening with nuclear strikes against cities as opposed to enemy units, for example, has different implications for the enemy in terms of his response. We can gain access to this meaning through context, and to context through language and discourse.

constructed through the policy discourse, where they remain subject to change through “discursive challenges” (Schmidt, 2008, 2010; cf. Risse, 2000). Since games are constituted in public languages—i.e. meaning is not specific to the individual—public reasoning is required to establish the greater rationality of one move over the other (see Wittgenstein, 1958, para. 491). This is the essence of policy-making as seen through the interpretive-constructivist lens: traditions/background ideational abilities provide a map for navigating the rules of the game, and they also supply conflicting frameworks for reasoning and action in the world. Policy-making is all about what language to use to persuade, as language use is “fundamentally intersubjective and constitutive of the power to act politically” (Fierke, 1998, p. 211). Thus political power is not only something to be achieved through economic and material means (e.g. physical coercion), but also through altering the perception of others about the game played through, in Nicolas Onuf’s (1989, p. 234) words, the “manipulation of symbols,” much like the author of a play (Fischer, 2003, p. 23).

Onuf borrows this conceptualization of intellectuals from Lasswell who theorized that influentials—people who make the rules—get what they want through these three avenues: controlling supplies, applying violence or manipulating symbols. Based on which one they subscribe to, actors form skill groups. As skills in violence lose their edge in developed societies, other skills increase in their importance, such as the manipulation of symbols – a “more refined way of control” that involves more and more performative talk (Onuf, 1989). The decline in the importance of violence-related skills arguably coincides with the technocratization of governance. Therefore, in a Lasswellian world, the technocrat-bureaucrat is not necessarily a mindless machine, but member of the new elite.

Argumentative, active and adaptable actors in the policy process constantly debate and deliberate over their interests and ideas. Ideas and interests manifest in discourse, which in turn can be understood as ideas and the mechanisms used to communicate them (Schmidt, 2008). Argument—understood as an attempt at persuasion—is truly the “glue of politics” as actors construct arguments and thereby also construct and reproduce the policy discourse (Crawford, 2009). Crucially, the construction of these arguments involves a series of conscious rhetorical choices. As situated agents they are however not entirely free to do so: as holders of specific positions⁶³ assigned by the language game within which they make a move, actors are entangled in webs of meaning. In other words, their position within a language game, and how they interpret their environment from this position, influences how they see the world, similarly to how organizational positions influence beliefs and preferences in the bureaucratic politics framework (Allison, 1972; Drezner, 2000; Preston & ‘t Hart, 1999). Argumentative interaction (i.e. attempts at persuasion), and the choices it involves, are key to discourse formation, and, consequently, to policy-making. Their study enables the interrogation of the dominance and longevity of certain discursive formations.

2.3.1. Experts, resources and technologies

The aforementioned Laswellian/Onufian conceptualization of experts in general, and defense rationalists in particular, is central to the argument I have been making so far for two reasons. First, through its interpretivists-discursive institutionalist conceptual base, it reflects on the internal criticism within institutionalism I discussed earlier. Most importantly, it offers a solution to Harty’s (2005) critique about agency, ideas-as-resources, windows of opportunity

⁶³ These positions may range from the general like “civilian strategist”, to the organizationally specified, like “Air Force Chief of Staff”.

and institutional change. To reiterate, Harty suggested that institutionalists shift their focus from windows of opportunity which agency can “jump through” (e.g. structural crises), to a more active concept of agency that builds on the institutional resources that agents hold, including ideas. In turn, by invoking the traditions experts rely on and the dilemmas they face, the conceptualization I propose fuses windows of opportunities (dilemmas) and ideational resources (traditions/background ideational abilities and foreground discursive abilities) into a single framework that retains its institutional focus. The solution is similar to what Harty recommends: it lies in the “how” of institutional change and the role of agency therein. On the one hand, this understanding of the expert highlights how reflexive agents can move beyond their traditions when these are incapable of dealing with dilemmas, and can also use ideas to induce dilemmas within dominant traditions, thereby making these windows of opportunity less of a function of structural dynamics. On the other hand, the Onufian understanding of experts highlights just how *symbolic/ideational*—and therefore different—these resources are when compared to those of other actors in the policy realm, as well as how these resources can contribute to change.

The second important aspect of this reconceptualization of experts is that it instantiates interpretivist research on technologies of power (Bevir, 2010a, pp. xl–xli). This branch of the interpretivist literature, relying on the concept first drafted by Michel Foucault, investigates when and how central elites turn to certain forms of expertise to define specific discourses. Nowadays, various traditions of social science influence public policy, for example economic theory, and, as I have argued in the introduction, deterrence theory, still have an impact on defense policy-making. Interpretive theory draws attention to governmentality here, understood as the scientific beliefs and associated technologies that govern conduct. It concerns itself with the ways social actors draw on certain forms of

knowledge to construct policies and practices, especially those that create and regulate subjectivities. Experts, such as nuclear strategists, provide policy-relevant knowledge, and manipulate demand for it. After all, no one is exempt from the fundamental condition of theory-laden thinking, and, when it comes to thinking policy, social scientists (economists, sociologists, strategist etc.) are some of the key providers of these theories. John Maynard Keynes' famous remark nicely summarizes this strong ideational impact:

The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure that the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. (Keynes, 1936, p. 383)

When it comes to defense rationalists and their interaction with the US Air Force through RAND, a duality of ideational and institutional resources is clearly visible. On the one hand, defense rationalists needed to confirm to the basic requirements of a military already engaged in a Cold War. An agreement on fundamentals, Philip Green (1968) shows, has always been part of the requirements of access to national security policy. This agreement defined what "expertise" meant—not only in terms of the possession of relevant skills, but also of acceptable attitudes. Green captures this attitude, characteristic of the Air Force, as “a desire (...) to provide military security as perceived within the intellectual confines of the cold-war perspective” (P. Green, 1968, p. 316), a desire that Andrew David May (1998) refers to as “Cold War orthodoxy”.⁶⁴ Such attitudes/beliefs embedded in traditions are part of the informal constraints on discourse production that have a formal institutional origin. Organizational attitudes not only limit what counts as expertise (i.e. expert output), but also

⁶⁴ For a more detailed discussion see section 4.4.2.

limit who gets to interact with the military bureaucracy in the first place through the distribution of funds and access. In the case of the RAND Corporation, money and access to classified information, as well as to the policymakers themselves were all available within the science policy framework the US government devised in the immediate postwar years. By supporting RAND, Green (1968) argues, the government through the Air Force paid for a new member of the (national security policy-making) elite. This element, as I will later argue, made RAND exceptional as a center for defense rationalist thinking. Though Randites engaged in debate with members of the wider defense rationalist community—e.g. professors based at Ivy League universities or their European counterparts—the think tank’s special position rendered knowledge produced at RAND more relevant for actual policy-making. Consequently, by merely observing the deterrence macro-discourse—what is being said—without the institutional constraints and power differentials that structured it, analysts might get a distorted impression of who the relevant players were—think of the critical work of Raymond Aron (1965) that never really reached policy circles—or even what the policy debate was about. Therefore, we need to address how institutions limit and enable idea influence through discourse. In the following section, I will demonstrate the relevance and shortcomings of new institutionalism, and present discursive institutionalism as an alternative approach that can provide the structural “leg” to an interpretivist theory of expert influence.

Chapter 3: Contextual suasion: A micro-theory of expert influence

Though institutionalist analyses often present compelling case studies of an idea's adoption as policy, the criteria they use for case selection fall into the same trap that hampers the epistemic communities literature: successful stories are preferred for analytical purposes, and the inductive, ad hoc ideational theorizing cannot explain the sufficient conditions for adoption, nor can it present us with any mechanisms of idea influence. Therefore, failed idea influence also gets neglected. Additionally, as Vivian Schmidt (2008, p. 307) shows, ideational studies have their own bias: they seem to assume that "good" ideas—those that appear to be more relevant, adequate and/or appropriate to the context—succeed, while "bad" ideas fail at becoming policy. This bias again ties in with the problems of epistemic communities, an ideational agency-centered framework that seeks to address similar problems. It is unclear, however, how these analysts would treat cases where "bad" ideas succeed, or "good" ideas simply get rejected. For these very reasons, offering a micro-theory/mechanism for idea influence is a crucial issue not only for the interpretive framework I propose, but also for all versions of ideational institutionalism.

Schmidt already offered tentative solutions for assessing idea success in her review of the institutionalist literature, grouping previous institutionalist approaches according to levels of idea generality they rely on (Schmidt, 2008, p. 306).⁶⁵ She identified three such levels: 1) specific policy solutions (policy ideas); 2) general policy programs (programmatic ideas) that underpin proposals and reflect the organizational principles of the policy field in

⁶⁵ Schmidt (2008, 2010) argues that a discourse can serve to articulate multiple levels and forms of ideas. However, in order to keep the analysis focused and the definition of ideas parsimonious, I will discuss policy ideas and programmatic ideas only, along with the traditions that underpin these.

question; and 3) “public philosophies” or worldviews that underlie all forms of knowledge, and are therefore closer to background knowledge (cf. Bourdieu, 1980). For instance, analysts who treat ideas on the second level of generality (general policy programs) turn to the philosophy of science for benchmarks for identifying “good” ideas and thereby policy change. These scholars link ideas to Kuhnian “paradigms” or Lakatosian “research programs” (e.g. Hall, 1993), linking the success of the program not only to viability of the program’s ideas, but also its long-term problem solving capacity (Schmidt, 2008, p. 308). However, audiences in the policy-making setting are not reducible to scientists/experts, people who would arguably be more conducive to judging policy ideas based on philosophy of science benchmarks. How *scientifically* viable ideas fail to achieve influence, or, conversely, how *scientifically* unviable ideas achieve wide acclaim is a question these studies leave unanswered. Meanwhile, scholars who situate the ideas they analyze on the third level, fall into the common structuralist trap that threatens with tautological reasoning: if ideas influence every action, then what can they truly explain? This problem surfaces in all three schools of new institutionalism.

Therefore, instead of relying on comparative methods and process tracing techniques, discursive institutionalism needs to offer a mechanism of idea influence. What truly sets DI apart from other forms of institutionalism and makes it suitable for denaturalizing expert ideas is precisely the theoretical basis it offers for such a micro-theory of idea influence. However, due to the approach’s relative infancy, discursive institutionalists are still engaged in conceptual debates and have done little in terms of operationalization and empirical research. In the following, I will offer a micro-theory that fills this niche: an operationalizable theory of ideational persuasion that builds both on the tenets of interpretivism and discursive institutionalism. For the sake of distinguishing it from its

interpretivist forerunners, I will call this micro-theory contextual suasion. As a first step, I will depart from early historical institutionalist work on idea persuasion (Hall, 1989a), and then combine them with operationalization techniques used in organizational studies (Phillips et al., 2004). This synergy between the two literatures will be established through the core elements of interpretivism/discursive institutionalism, most importantly the triptych of concepts in British interpretivism (beliefs, traditions and dilemmas) and the two central concepts of DI, background ideational and foreground discursive abilities. I will use these five concepts to highlight the ways in which interpretation and context-sensitive rhetorical choices produce persuasiveness in a fluid policy environment with various audiences.

Unlike in the theory of epistemic communities and traditional new institutionalism, in my discursive institutionalist rendering of idea influence the selection mechanism of expert ideas is far from automatic: ideas that serve as the basis of policies are not necessarily the “best” or even “good” (e.g. most relevant, rational or normatively preferred). Additionally the proposed model also seeks to overcome the positive bias characteristic of epistemic communities scholars: scientific (science-based) policy ideas do not represent something “good” by default, and do not necessarily provide a higher levels of social goods than traditional politics, often dismissed as a “cynical” and “ineffective” enterprise, foreign to the world of scientific counsel. Instead, experts are constantly engaged with other policy actors in a rhetorical struggle for discursive hegemony, shaping their own ideas to better fit the policy environment—a behavior that lies at the core of contextual suasion.

This struggle for discursive hegemony is captured through the concept of persuasiveness as initially conceptualized by Peter Hall (1989), wherein ideas need to be persuasive for relevant audiences in order to become the blueprints of institutions. What the

discursive institutionalist approach adds to this conceptualization is conscious agency: actors can render their ideas more persuasive by engaging the policy environment or even reframing the whole debate *around* their idea, thereby making it more persuasive for relevant audiences. Persuasiveness for DI therefore is not merely a cognitive aspect (cf. Adler, 1992)—it entails a fit between the new idea and relevant historical experience, existing ideas and policies and the interests (understood as subjective beliefs) of key actors in the policy-making process.⁶⁶ Such factors are embodied for example in the traditions of relevant audiences, such as those of the policy expert community, the bureaucracy or the policy-making/political elite. Therefore, in the discursive institutionalist conceptualization that I will present shortly, persuasion is not a static, descriptive concept, but a complex form of situated agency that requires idea carriers to be aware of the policy discourse and the traditions of relevant audiences embodied within. This is the form of situated agency that I refer to as contextual suasion. Even though previous institutionalist sources of idea influence like resonance, appropriateness (i.e. normative viability), relevance, and adequacy are still crucial elements in a contextual understanding of idea influence, these are not used as objective benchmarks when analyzing idea-driven policy change, but as relational terms vis-à-vis a policy environment where ideas compete in a thick web of ideas and beliefs.

3.1. Persuasion and historical institutionalism

Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist.
/John Maynard Keynes/

Institutionalism once again offers a useful point of departure, especially if we take into account the empirics of this dissertation: a period of institutional flux with the heavy presence

⁶⁶ A similar point is made by Adler (1992, p. 124): not necessarily the best ideas are selected but those that fit the interests of policymakers and have “passed the test of domestic politics”.

of a formal bureaucracy, the US Armed Forces. To put it simply, if there is a policy field where formal institutions guide policy action, it is national defense. In this section I will present and build on the contextual representation of the policy matrix in terms of idea influence and persuasion was offered by one of the early historical institutionalists, Peter A. Hall (1989a). Analyzing the role of Keynesian ideas in postwar politics, Hall showed that (expert) ideas on policy matters need to be *persuasive* in order to be selected for policy implementation—a claim that is reiterated elsewhere, for instance in the epistemic communities literature. What Hall truly adds to the logic of policy analysis I have presented so far is the argument that persuasiveness is not merely a cognitive aspect, but entails a fit between the new idea and relevant historical experience, existing ideas and policies, and the interests of key actors in the policy-making process. Hence persuasiveness here is imbued with a distinct socio-cultural element.

Hall groups the mix of environmental factors a new idea needs to relate to into three tiers which are also in essence three separate audiences: an idea has to be persuasive for the expert community (economists in his case), the political/policy elite, and the bureaucracy that has to implement the idea as policy.⁶⁷ These tiers manifest in existing scientific theories and standards, the state of the policy area in question (the national economy in Hall's case, nuclear strategy in this dissertation), the interests and goals of the ruling political elite, administrative biases and structural capacities for implementation (see Figure 1). Hall maintains that if an idea achieves scientific, political and administrative *viability*—simply understood as being acceptable to relevant audiences—it is implemented as policy.

⁶⁷ Hall elevates the bureaucracy to the same level of importance that policymakers and experts share, thereby drawing attention to the importance of policy implementation. This simple, yet crucial element mirrors our everyday experience with bureaucratic red tape, be it intentional or structural. Just because a policy is decided upon, it is not necessarily implemented in the way policymakers intended (if it is implemented at all).

For Hall's contemporaries, the novelty of the framework primarily lay in his attempt to combine ideas with traditional material factors, emphasizing the role of ideas as structure/context. However, though undoubtedly path breaking, persuasiveness as conceptualized by Hall et al. (1989a) appears to be a catch-all concept that combines diverse variables from both the rationalist and reflexivist traditions, leaving both mainstream and critical ideational scholars unsatisfied. While the first school would miss guidelines for disentangling the relative merit of or the relationship between the two logics at work, or a clear definition of "minimum levels of persuasiveness" for viability; the latter group would challenge the underlying Cartesian epistemological position.

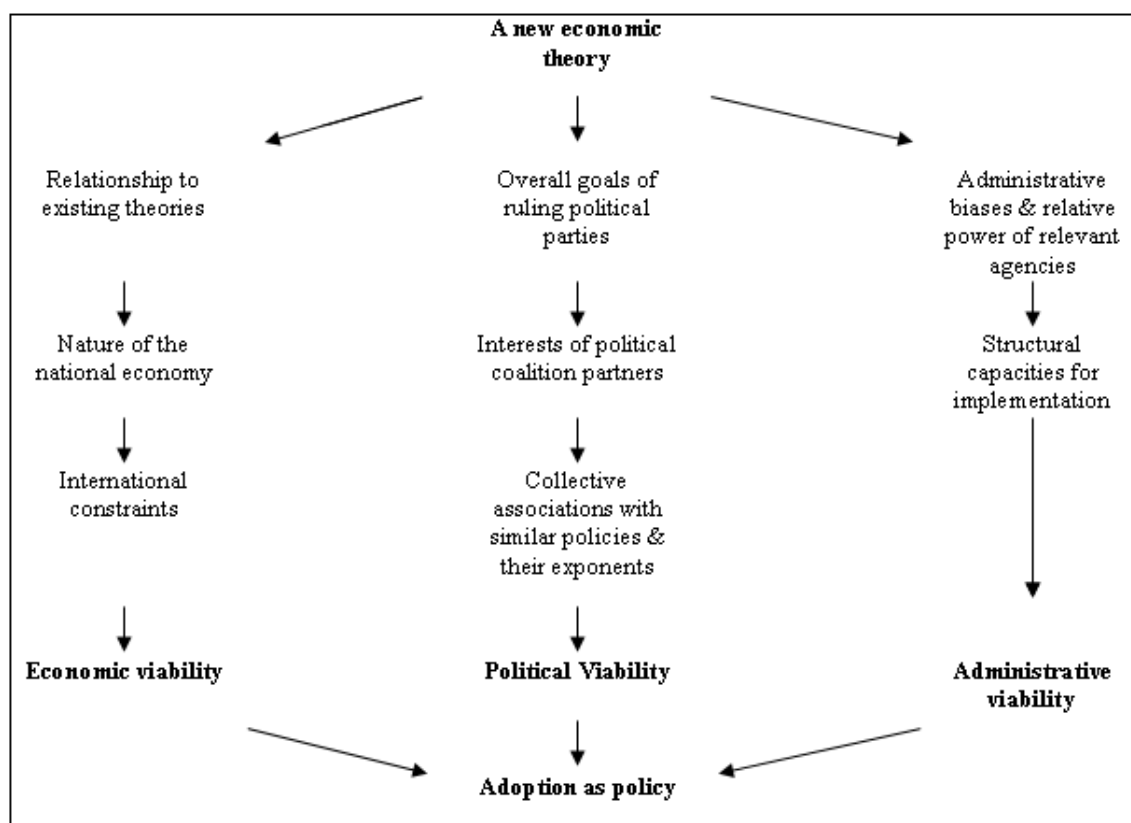


Figure 1. Factors influencing persuasiveness
Source: Hall 1989:371

In short, though ideas received a central role, Hall and other new institutionalists in the volume dismissed language in their explanation, and treated the ideational and the material as

separate. They did so even though it is obvious that not just ideas but also the other factors listed in the above framework have discursive manifestations: actors are hopelessly entangled in language as language is needed to communicate material interests, as well as ideas (Crawford, 2009). Moreover, as I have emphasized earlier, interests themselves embody ideas. As Vivian Schmidt notes, though “interest-based behavior certainly exists, (...) it involves ideas about interests that may encompass much more than strictly utilitarian concerns” (Schmidt, 2008, p. 3018). Argument, i.e. the attempt at persuasion, is the stuff of policy-making, as the “homo politicus is neither rational nor irrational, but a reasoning actor” (Crawford, 2009, p. 104). Yet understanding policy as discourse is not only possible for abstract reasons of theory. It is also very much commonsensical as most policymakers would readily tell us that they are working in a realm of ideas, arguing and persuasion.

Hall and his collaborators inductively mapped the context in which a policy idea has to achieve dominance, though they interpreted dominance/viability as immediate policy application. From the constructivist perspective, dominance here would rather mean discursive dominance: an idea can best become the basis of policies/institutions if it is taken for granted/objectivated. A discursively dominant idea then guides (enables and constraints) policy action by acting as a reference point for actors. How an idea can achieve dominance is in turn can be explained through a micro-theory of persuasiveness, conceptualized in discursive institutionalist/interpretive terms.

3.2. Persuasion and discursive institutionalism

Persuasion, as opposed to other forms of interactions, such as demonstration or coercion, is key for discursive strategies as it enables actors to (re)shape the context of the policy debate in ways they consider to be most conducive to the attainment of their objectives⁶⁸ (Kettell, 2012, p. 3). Seen through the lens of discursive institutionalism and interpretivism, policy-making is a struggle for discursive hegemony, wherein actors try to secure support for their particular interpretation of reality. Persuasion is therefore key to achieving the three interrelated aims of a discursive strategy (Kettell, 2012, p. 3): providing a common interpretation of problems and challenges; offering a coherent explanation of both goals and ambitions through the idea in question; justifying and legitimizing action for the pursuit of these ends; and mobilizing support, while simultaneously undermining, challenging or otherwise discrediting opposing arguments.

The dynamics of this constructed reality is determined by three factors: credibility, trust and acceptability (Hajer, 1995). These three factors could be taken roughly as composites of what Hall labeled as viability. Credibility is required for actors to believe and act according to the subject positioning a particular discourse implies, acceptability means that the implied position seems attractive and/or necessary—even if only for strategic use—and trust entails the ability to suppress doubt and inherent uncertainties. Trust becomes possible when actors secure confidence in the author or in the practice through which a particular representation of the policy reality has been achieved. For example, a popular actor is more likely to gain acceptance for his or her interpretation of a given policy problem, while

⁶⁸ Argumentation—attempting persuasion—differs from other forms of communication, for instance storytelling, because arguments are aimed to genuinely persuade (change beliefs) or justify, rather than simply to command, inform, coordinate action or express emotions (Crawford, 2009, p. 105).

the same is true in certain situations for interpretations that stood the test of processes that were scientific-rational or democratic.

Meanwhile, the ideational context of persuasion—the amalgamation of these above factors—is defined by relevant ideas, practices, traditions and discourses. This context limits the “what is possible?” for persuasion, but also enables agents to shape their discursive strategies. This is also the point where interpretation gains importance as a crucial component for contextual suasion. Actors constantly interpret the world that surrounds them, they assign meaning to it and then act based on these meanings—this is the core argument that is shared across all interpretive approaches to policy-making. What elevates contextual-suasion—i.e. persuasion conceived in discursive institutionalist terms—above these is the choice element that may follow interpretation.⁶⁹ Once an actor has interpreted its environment, he or she engages it through rhetoric: he or she argues either to promote an idea as something that aligns with intersubjectively shared interpretations of the world (a move within the rules of the game), or the reflexive actor may try to alter these shared interpretations of the world by reframing it, thereby rendering the promoted idea persuasive to audiences (a move that changes the rules of the game). Choices during the act of argumentation (persuasion attempt) are contingent on the speaker’s interpretation of the context. Depending on how the actor interprets the context, he or she will give differing answers to two basic questions: 1) What kind of audience am I dealing with, i.e. what beliefs/traditions guide what they see as persuasive? 2) What rhetorical tools will make the idea that I promote seem more persuasive given my answer to the first question? Attempts at persuasion combined with a reflexive interpretation of the discursive environment are the building blocks of contextual suasion.

⁶⁹ This choice element is a fall-back on classical understandings of rhetoric and persuasion. Rhetoric’s best known definition namely comes from Aristotle, who calls it “the faculty of observing in any given case the available means of persuasion” (Aristotle, 2011, chapter 2).

Thereby contextual suasion can act as the micro-theory linking agency and structure in an interpretive institutionalist framework. Ideas can thus be viable/persuasive due to certain qualities they or their authors and carriers possess.⁷⁰ If competing ideas lack comparable qualities, the idea may achieve discursive dominance and act as the basis of policy and institutions. But the plausibility of the idea (save for trust in carriers) is not only a matter of structural correspondence—it can also be manipulated through persuasion. Ideational research therefore cannot be reduced to the description of an idea and a comparison between its particularities of the environment. In the constructivist tradition, it has to involve agency.

Through this interpretivist re-imagination, Hall's (1989a) concept of idea persuasiveness gains a strong rhetorical element in addition to its cognitive and socio-cultural aspects: the power of an idea depends on it "sounding right". Staying true to the tenets of interpretivism, persuasion is always a relational concept that can both be passive (correspondence to the intersubjectively shared "status quo" understanding of the environment) or be manipulated by taking into account—or transforming—the rules of the game through discursive strategies that utilize actors' foreground discursive abilities. It is also dynamic since it entails rendering ideas more persuasive and maintaining persuasiveness/discursive dominance during times of change in context (and the dilemmas these might bring) through foreground discursive abilities. The task of the analysts is then to explain how a given actor—individual or group—secures the reproduction of its discursive position in the face of controversy (cf. Kettell, 2012; Rein & Schön, 1993).

⁷⁰ Individual foreground discursive abilities clearly matter for persuasion: a Cicero can mobilize support easier than an Average Joe. Nevertheless, this does not mean that we are back to the simplistic narrative of the "geniuses thesis". Being a good speaker, though is an asset, does still not explain influence on a large scale and across time. Persuasion is more than mere rhetoric. It needs to involve the idea—detached from the carrier—as well as the context.

Again, instrumental use falls under these categories just as well as genuine internalization. Wittgenstein's philosophy offers a tangible way of understanding the common logic through the interpretation of lying—faking genuine internalization for other ends—as a language game with its own rule. “Lying is a language-game that needs to be learned like any other one”, Wittgenstein (1958, para. 249) writes, and therefore, in order to lie effectively, we need to tell good lies, lies that “sound right”. Translated into strategic use, this would require actors to choose ideas that are constructed and represented as persuasive for others. Which ideas are more likely to be constituted as “right” in a given policy context is one of the key questions of this dissertation: what made defense rationalist ideas sound right? Though important, persuasiveness is not merely the function of the rhetorical abilities of the idea's carrier widely understood, but also the internal characteristics of the idea like method of construction, presentation language, discursive links, metaphors etc. that make it appealing for relevant audiences.

What Hall's interpretation of policy-making as a battleground of ideas helps us to see is where the relevant audiences for a new policy idea may lie, and consequently, what kind of contextual constraints/rules guide discourse generation. Institutionalism highlights that the institutional environment is a central constraining and enabling factor in politics. As a case in point, actors in the policy process often rely on the organizational traditions of (formal) institutions they belong to: taking the bureaucratic politics proverb further, “where you stand and how you think depends on where you sit” (cf. Weldes, 1998). From the strong presence of formal institutions in policy fields such as national security/deterrence it also follows that arguing against dominant, naturalized ideas often comes with a direct challenge against the institution that functions on the basis of these shared understandings. Defense rationalists' constant struggle with a dogmatic military approach to warfare, for instance the Air Force's

obsession with manned bombers in the rocket age, exemplifies the risks of such challenges even for actors *within* the bureaucratic nexus. It thereby highlights crucial *institutional* constraints on discourse generation. Hall's reconceptualized framework can therefore provide a useful map for assessing a policy discourse, while also offering a specific way to introduce institutions to an interpretive understanding of policy-making.

The three tiers in Hall's model already present a tentative survey of relevant macro-discourses, as well as three different audiences: the aforementioned expert/scientific, political and administrative communities. However, the model needs further modification with regards to its output: the selection of viable ideas merely means that these ideas are elevated into the relevant policy discourse. They may only exert influence—and serve as the basis of policies and institutions—once they dominate that policy discourse. Two things follow. First, discursive influence can be thought of as a combination of persuasiveness (selection) and institutionalization. Second, persuasion should under no circumstances be seen as a static concept. Though one of its aspects is a correspondence between idea and environment, even seemingly perfectly adequate ideas need to address several audiences simultaneously, and they need do so in repeated debates.

This latter observation clearly holds importance for defense rationalist ideas. Deterrence policy is among others nested in the national security policy macro discourse which involves a much broader set of participants, and may even include the general public, see for instance the public debate following the 1957 Sputnik scandal. For ideas to dominate a broader discourse, as defense rationalism did across policy areas, these ideas need to be constantly re(con)textualized while moving in-between audiences. It is not just about withholding classified military information when engaging the non-initiated: different kinds

of audiences may require different modes of persuasion. The temporal dynamics of persuasion, and the ways in which experts need to cope with them are exceptionally visible within the military bureaucracy, the formal institutional context of defense rationalism. As Bruce Smith, one of the early historians of defense rationalism observes,

decision-making in the national defense establishment is a process, a continuous flow of decisions that make up the seamless web of policy formation and administrative action in the federal government. The dynamic flux of the process makes the job of the advisor particularly difficult. It means that there is no orderly procedure whereby the advisor can state his views or explain his research and then retire from the scene confident that his advice will receive systematic considerations. (...) Decisions once made can become unmade a week later. The advisor may face a difficult task to secure a full hearing for his views in the first place, and then must struggle to keep attention focused on his recommendations for a long enough period to assure action of some kind. *Continuity* is thus an essential attribute of effective communication of policy oriented research. (B. L. R. Smith, 1966, p. 217, emphasis added)

Expert advice cannot simply be given to top level officials if the expert desires a decision and effective implementation of the policy advice. Persuasiveness needs to be established at multiple points in time, in diverse settings and with varying audiences even within the same target organization. Smith's observation about the insufficiency of circumventing lower level bureaucrats and knocking on the top echelon's door clearly supports Hall's distinction between viability for top policymakers and bureaucrats who implement policy decisions.

A basic survey of defense rationalist recollections further reinforces the importance of persuasion as persuasion is seen as crucial among community members. Randites have acknowledged on several occasions that they had to not only establish, but also to *maintain* the persuasiveness of their ideas, admitting that having a storyline both for papers and presentations was a crucial element. In his interview for the RAND Oral History Project (ROHP) Ed Barlow states that effort had to go into making a "story" more palatable, providing a clear structure for the presentations.

I don't want to say palatable in a derogatory way. What I mean is, even for ourselves, to make sure there was a logical thread, if we could, that seemed to sustain itself without having to depend in detail on an enormous amount of mathematical calculations. I think we wanted to feel comfortable with that idea too.⁷¹

Interestingly, Barlow juxtaposes persuasive storylines with purely scientific demonstration, something that the reader might more readily associate with defense rationalism, but is nevertheless a suitable example of flexible persuasion. As he recalls,

in general it wasn't very believable by the Air Force or even other systems analysts to say, I've made this giant systems analysis on this big computer of mine, and I've run seventy thousand cases, and the optimum answer is this. And then sit down. That by itself doesn't work well, because in their minds they think, now, I wonder if he did that right? (...) I mean, all those questions come through people's minds because they've seen it happen. They've seen different agencies come out with vastly different answers that way. So you'd like to be able to say, we think we ought to have this fighter because even though it costs the same as the other one, it has twice as many rockets on it, and that's what made it better in our analysis. The numbers showed it, but now I look at it I think, that's why it came out that way, so now I can point to that, and that makes sense by itself.⁷²

Randites were also acutely aware of their fragile legitimacy vis-à-vis the Air Force, and placed an emphasis on effective persuasion. Crucially, the Air Force seemed open to recommendations, yet reluctant to implementation, which opened the possibility of incremental persuasion and continued idea re-textualization. As Ed Barlow recalls in the same interview:

Relatively infrequently (...) was the RAND recommendation a definite black-and-white thing that [Air Force officers] were ready to either accept or reject. Because relatively rarely did it exactly match what was happening at the time. So the general reaction (...) was to try to understand it, try to see why it came out that way, and then say, well, if that's the case, what should I do differently in the things I'm doing right now? And maybe I don't immediately jump and take that recommendation, but maybe I don't push

⁷¹ RAND Oral History Project (ROHP) interview with Edward Barlow. Dates: February 10, 1988, October 11, 1989. Interviewers: Martin Collins and Joseph Tatarewicz. Auspices: RAND. Smithsonian Archives, RAND History Project Interviews, Box 9.

⁷² ROHP interview with Edward Barlow.

this development as much, and maybe a year from now I can put the money in that, or something. I could see more of the feeling that this is a complex, ongoing machine, and the recommendations sort of begin to move things around, but it's not so sharply a black-and-white thing, most of the time.⁷³

How persuasiveness can be actively manipulated is the subject of the next section where I discuss metaphors and analogies as the basic semiotic tools for establishing inter-textual and inter-discursive links. Such links, I argue, are key to establishing resonance with audience traditions.

3.3. Metaphors, analogies and persuasion

We may be likened to two scorpions in a bottle, each capable
of killing the other, but only at the risk of his own life.
/J. Robert Oppenheimer⁷⁴/

A strange game. The only winning move is not to play.
How about a nice game of chess?
/"Joshua" the military supercomputer commenting
on nuclear war from the movie *Wargames*⁷⁵/

Since persuasion is not an individual cognitive process but a public one, discursive influence has a strong rhetorical element. In a realm of constant arguing, bargaining and deliberation, the "modes of reasoning" ideas carry is crucial: content and form both matter. Policy ideas carried in texts offer certain ways of communicating, measures of validity, causal beliefs and so on. They rely on narratives, symbols, metaphors, historical analogies and other semiotic tools to convey meaning. Such tools can be used to argue and persuade (in the rhetorical sense), but they will also contribute to setting the boundaries of the discourse relevant to a particular policy field. Through these elements, previously unproblematized discourses and traditions can be invoked, thereby extending the scope of the original policy discourse. As

⁷³ ROHP interview with Edward Barlow.

⁷⁴ Oppenheimer J. Robert (1953), "Atomic Weapons and American Policy", *Foreign Affairs* Vol. 31, No. 4 (Jul., 1953), pp. 525-535.

⁷⁵ Badham, John (dir.) (1983), "Wargames", (United States: MGM/UA Entertainment Co.), 114 min.

such, persuasion can be thought of as the act of translating an idea in-between tradition and even various policy discourses, for instance the successful proliferation of defense rationalist ideas as well as methods/language to aid policy (Allan, 2013) or urban policy planning (Schelling, 1983).

The constraining and enabling effects of language, as well as the need for rhetorical argumentation are particularly crucial aspects of the deterrence debate. Bereft of empirical evidence, the debate on deterrence has to remain on the level of abstractions. Each school within the theory can attack the other side endlessly, yet cannot ground its own arguments in empirics. Therefore, metaphors, analogies⁷⁶ and other argumentative tools are extremely important for debate. Instead of testing a correspondence to Reality with a capital R—i.e. the scientific method—the strength of a position is then measured in terms of the political power backing it (Williams, 1992, p. 86) and/or abstract positivist “virtues” like logic, presentation, coherence, parsimony and formalization; whereas outside criticism can be dismissed through claims to the scientific basis of the theory.⁷⁷

To render their ideas more persuasive, idea carriers translate their ideas for their peers through reference to stable meanings in the tradition of various audiences. Essentially, they create “through language (...) a compatibility between [ideas] and relatively stable stereotypes and narrative[s] (...) already present” (Chilton, 1985a, p. xvii). One of the primary tools for this task are metaphors and analogies, which have been extensively treated within literature, including studies on deterrence.⁷⁸ In the following, I will use metaphors and

⁷⁶ Historical analogies are crucial for approximating the empirics that (nuclear) deterrence theory is lacking.

⁷⁷ I must thank Charles Glaser for a very fruitful, self-reflective conversation on the internal dynamics of the deterrence debate.

⁷⁸ See e.g. Boyd-Hinds & Windt, 1991; Chilton, 1985b; Cohn, 1987; Fierke, 1996, 1998; Hirschbein, 2005; Ivie, Medhurst, Scott, & Wander, 1997; Kahn, 1965; Lakoff, 1991, 1993; Lakoff & Johnson, 1980; Shimko, 1994; Weldes, 1999.

analogies as examples for semiotic devices to demonstrate how connections between idea and tradition(s)/text(s)/discourse(s) can be established.

Metaphors provide boundaries for the (policy) game and the use of a *particular* metaphor (or analogy)⁷⁹ represents a form of naming. By always being somewhat abstract – argument is not *really* war (Lakoff, 1993)—metaphors facilitate their broad application, and are crucial devices for discursive strategies. The selection of specific metaphors is pivotal when deterrence analysts try to convey and conceptualize the often very abstract and counter-intuitive logic of deterrence by linking it to meanings known to the audience. Such tools facilitate comprehension, establish links with various traditions and discourses, frame interests, constrain policy choices and so on.

Depending on the analogy or metaphor, different policies become rational, even necessary. For instance, some of the most prevalent metaphors of nuclear superpower conflict are an iterated prisoner's dilemma (PD) game (Schelling, 1960), a game of chess (Nitze, 1956), or as “two scorpions in a jar” (Oppenheimer, 1953). These metaphors all highlight the one-on-one nature of the conflict, yet, since they all work as language games under different rules, the nature of the conflict and the identity/role of the players within the game is distinct. Oppenheimer's scorpion metaphor emphasizes the potential lose-lose outcome of nuclear war. Though more implicitly, it also points out the perpetuity of the Cold War—the scorpions cannot escape—and the inevitability of lethal confrontation.

The prisoner's dilemma metaphor on the other hand leads the parties in a commitment race about credibility: as Thomas Schelling (1966, p. 93) writes, “what one does

⁷⁹ With historical analogies, when making sense of the context, actors identify family resemblances with the past. The analogy is possible because of a family resemblance between the present and the past. Metaphors on the other hand are more versatile: their function is to provide a partial understanding of one kind of experience in terms of another kind (Lakoff & Johnson, 1980, p. 15).

today in crisis affects what one can be expected to do tomorrow”. This abstract, rationalist logic reflected the *political* logic of containment (see Sent, 2006). Finally, the *nuclear* Cold War as a game of chess metaphor could be used to assign roles to weapons-as-pieces, and also to depict the confrontation as something calculable. For instance Paul Nitze wrote:

The atomic queens may never be brought into play; they may never actually take one of the opponent’s pieces. But the position of the atomic queens may still have a decisive bearing on which side can safely advance a limited-war bishop or even a cold-war pawn. (Nitze, 1956)

Chess’ “cold logic”, high level of strategy, the sequentiality of the play, and the use of “pieces” all shape how Nitze’s audience saw the conflict, possible strategies, and the goal of the whole “game”. Moreover, by making it zero sum and two-player only (cf. the Unaligned Movement and China), the metaphor essentializes the Cold War into a nuclear struggle between diametrically opposed equals. On the one hand, Nitze’s use of the metaphor overemphasized the traditional security aspects of the Cold War, thereby also depoliticizing it.⁸⁰ On the other hand, it made it calculable and controllable: pieces other than the “atomic queens” *could* be used—an argument that lies at the core of war limitation.

With historical analogies, when making sense of the context, actors identify family resemblances with the past. The analogy is possible because of a family resemblance between the present and the past (Lakoff & Johnson, 1980, p. 15). They work as “quasi-logical scripts and are mobilized in and through foreign policy debates (...) [making] certain actions seem almost necessary, and (...) more legitimate (Guzzini, 2013, p. 53). Inserting a historical analogy into defense rationalist attempts at persuasion mobilizes a particular subject position for the US or the Air Force—for instance the Air Force as the first and last line of defense, or

⁸⁰ This is typical of the American understanding of Cold War security, see Waever (1995).

the US as lagging behind in deterrence measures. Cherry-picking the subject position preferred by the Air Force therefore can supplement persuasiveness in interservice debates. Though the focus of this dissertation is not an analysis of defense rationalists language and metaphors—as this subject has already been extensively covered⁸¹—identifying key metaphors used by defense rationalists when promoting their ideas during key crises can supplement an explanation of the longevity and influence of said ideas. Nevertheless, since the proposed discursive institutionalist framework does not focus on discourse alone, discourse and metaphor analysis needs to be supplemented by a historical analysis of the institutional environment.

3.4. The mechanisms of contextual suasion

A minute, discursive mechanism of idea influence has already been explored in organization studies that will serve as the starting point for the micro-theory I propose in this chapter. As Nelson Phillips and his co-authors (2004) rightly argue in their exploratory article “Discourse and Institutions”, institutions are not directly constructed through actions, but rather through discourse acting as a mediator, with language (texts) taking a central role in the explanation. Their framework follows the tenets of the linguistic turn in that it sees institutionalization as a social process by which individuals come to accept a shared definition of social reality that (re)produces an institution (Phillips et al., 2004, p. 638). Unlike new institutionalists, Phillips et al. conceive of institutions as constructed primarily through the production of texts, defined as “any kind of symbolic expression requiring a physical medium and permitting of permanent storage” (Phillips et al., 2004, p. 636), rather than directly through actions. Actions may form the basis of institutionalized processes, but by being observed and interpreted, they

⁸¹ See e.g. Chilton, 1985b; Cohn, 1987; Hilgartner et al., 1982; Hirschbein, 2005.

produce texts that mediate the relationship between action and discourse. Institutions are constituted by a structured collection of texts (i.e. a discourse⁸²) that produces the social categories and norms that influence the beliefs, preferences and behaviors of actors.

Actions of individual actors (or groups) thus affect the discursive realm through the production of texts, some of which will become embedded in new or existing discourses. In turn, discourse will provide the self-regulating mechanisms that are the basis of institutions and will later shape the actions of actors, restarting the structuration circle (Giddens, 1984). Action, text, discourse and institutions are therefore closely related. Importantly, this framework acknowledges that institutionalization can still originate in actions of interests conceived in terms of material power, but discourse is required for these factor to influence outcomes (cf. Crawford, 2009; Onuf, 1989, p. 234). Simply put, this is a reiteration of Neta Crawford's (2009) claim that politics is "argument (nearly) all the way down", and also a logical extension on Hall's (1989) contextual approach: power and interest both need to be communicated and therefore have a discursive aspect. Moreover, by tracing the idea's transmittal through discourse via texts, the model detaches ideas from their originators—defense rationalists in this case—and assesses their interaction with the policy environment in diverse settings as other actors re(con)textualize these ideas within their own texts. An additional benefit of this detachment is that the policy debate in question can be extended from the formalized expert debate to the idea's discussion among relevant audience members outside of the expert community. Nevertheless, this conceptualization also makes it possible to identify discursive strategies as they manifest in a coherent selection of texts, once again pulling creative agency into the focus of analysis.

⁸² Note that this definition of discourse is narrower than that of DI, which includes not only the texts that carry ideas but also the mechanisms through which these ideas are transmitted, with the additional focus on the institutional context (who says what, when and where). Whenever discussing discourse in connection with the Phillips et al. framework, I will be referring to the discursive institutionalist understanding.

Phillips et al. offer a possibility of operationalizing persuasion as the creation and modification of texts in ways that makes them conducive to influencing the policy discourse and grounding institutions. When it comes to operationalization, the immediate question is, if actions affect discourse through text, then what kind of actions are more likely to produce meaningful traces, and which text will influence discourses? What kind of discourses will form the basis of institutions? In short, how do we know what an important text is in terms of ideational influence and institutional change?

The mechanism depicted within not only shows how ideas and interests are turned into institutions over time, but also how an idea's viability-as-persuasiveness is established: texts are namely the embodiment of actor's choices about the use of his/her foreground discursive abilities. Many actions produce texts, but not all these texts leave a lasting residue. Successful texts are "taken up" and go through successive phases of textualization and recontextualization before they are turned into (get embedded in) discourse. As Taylor and Van Every (2000, p. 292) put it: "A text that is not read, cited or used, is not yet a text". Once texts are distributed and reinterpreted by other actors, they can develop organizing properties and affect the discourse. As they are distributed to a multitude of actors, local text can become global and convey a widely shared system of symbols (e.g. an idea or even a tradition). Through this process, semiotic devices become more and more "objective" as their original meaning is abstracted from the specific action that produced them – eventually, they become reified, taken-for-granted.

When it comes to public policy-making, organizational relations are crucial in the initial stages of institutionalization since actions are more likely to become textualized if *organizational legitimacy* and/or *sensemaking* is at stake in a form of a dilemma.

Sensemaking can be defined as the social process by which meaning is produced. It involves the retrospective interpretation of actions and is triggered by surprises, crises, puzzles or problems: in one word, dilemmas. As Weick aptly puts it: “How can I know what I think until I see what I say?”, meaning that thinking is not knowledge until it has been textualized (Weick 1979, 1995, quoted in Phillips et al. 2004). This is an argument that mirrors Wittgenstein’s thoughts on public reasoning (Wittgenstein, 1958, para. 491). Sense is thus generated through a linguistic process and involves narratives, metaphors, and other symbolic forms that produce texts.

Legitimation entails the creation of new symbolic structures whose crucial function is to allow individuals to make sense of the social order (Berger & Luckmann, 1966, pp. 92–96). This process occurs as constructions of reality are passed down to newer generations (cf. traditions), or are transmitted to actors of a wider community. According to Phillips et al., actions that propel actors to maintain, gain or repair legitimacy are likely to produce texts that leave traces. Dilemmas in particular can be a source of these actions if they target legitimacy. In these cases, texts are used to establish, verify or change the meaning that is associated with the action. In a way, Project RAND, the initial legal framework for RAND-Air Force cooperation exemplifies a legitimacy problem: founded by and working exclusively for the Air Force, RAND as an organization had to establish and then maintain the legitimacy of its existence. Continued reliance on Air Force funds therefore acted as an informal constraint on knowledge production, despite the think tank’s coveted intellectual freedom.

This problem is not specific to dependent advisory/research bodies—it can also affect the donor/client. As I mentioned earlier in the section on interpretivism, dilemmas that challenge traditions on multiple levels are exceptionally important for understanding policy-

making as they can truly lead to a loss of orientation for policymakers, potentially giving birth to policy controversies that fuel change. With military organizations, the loss of orientation (see sensemaking) can lead to a crisis of bureaucratic legitimacy (see legitimation), especially in the tense political-military atmosphere of the Cold War. In such a setting, not knowing “what to do”—or knowing that “what we do does not work”—is almost by definition a crisis of national defense policy. Political repercussions that are due to follow once the problem becomes publicly known in turn might very well damage the organization that fails to solve the dilemma. As an example for such a complex situation, I will later on investigate the debate on minimum and maximum deterrence (counterforce) between the US Navy and the Air Force.

During the final years of the 1950s, the Air Force, the largest beneficiary of the nuclear defense budget, was challenged by the Navy’s nuclear Polaris nuclear missile-carrying submarine project that offered a seemingly cheaper and more secure solution for the deterrence problem (a technological challenge), a problem that was grossly aggravated by the ongoing missile gap scandal that demanded swift and decisive military reaction to the perceived Soviet missile threat (a political challenge). To the Air Force’s discomfort, this technological development was paired with a new idea, minimum deterrence, that undercut the Air Force’s *raison d’être*—the core belief that more and better bombers equal a stronger, more secure US—while giving the Navy position the kind grounding in the “science of warfare” that was previously reserved to the Air Force via RAND (a theoretical challenge). All these different facets coalesced in a dilemma that was both perceived as fundamental and was widely shared within the Air Force, leading to desperate pleas to RAND’s defense rationalists for new ideas that could reinforce the Air Force’s position and reinvigorate its tradition. Though the eventual policy was more Air Force than RAND, it still incorporated the

policy beliefs and methods of defense rationalism. The Air Force attributed the success of RAND-supplied counterforce policies over the Navy option to this merger of traditions, leading to a long lasting cohabitation of military policy-making and defense rationalism.

Differences in the processes and characteristics of their production will make some texts more likely to be embedded. Such characteristics are related to and extend the dynamics of credibility, acceptability and trust, and for Phillips et al. (2004), fall under three categories: the producer of the text, its genre and its relation vis-à-vis other texts. The first set of relevant factors relates to the characteristics of the producer of the text. A text is more likely to become embedded in the discourse if its producer falls under one or more of these categories, echoing the importance of powerful carriers (cf. Hall 1989, Haas 1992):

- I. an actor may occupy a position that warrants voice (discursive legitimacy)
- II. the producer of the text may be able to make the text “stick” through coercive means
- III. a producer may be able to add texts to the discourse because of his/her central position in the network of organizations constituting an institutional field

A text hence is more likely to become embedded in the discourse if its producer occupies a position that enjoys discursive legitimacy, is someone who can make the text “stick” through coercive means, and/or has a central position in the network of organizations constituting the institutional field.⁸³ This point once again highlights that a look at discourse alone (“what is being said”) gives us an incomplete picture without knowing “who says what and where”. Clearly no policy innovation can be lasting without the agreement of important “culture bearing units”, i.e. actors (individual or group) that occupy discursive power positions, and

⁸³ The mechanism also works as a constraint on challengers/agents of change: challenging a frame that is embodied in an important institution’s tradition will evoke resistance.

therefore enjoy legitimacy/authority (I. A. Johnston, 1995). Persuasion therefore can be conceptualized as an exercise in translation across traditions in order to mobilize support for an idea, for example in the form of discourse coalitions (Hajer, 1993, 1995). The importance of coalition-building around policy proposal via persuasion was already noted by Bruce Smith in his historical work on RAND (still underplaying the discursive aspect of said persuasion, however):

A handful of men can block action or decision with relative ease, but it is doubtful whether they can initiate it with the same ease. For favorable action on an advisory recommendation to occur, the advisor must normally persuade large numbers of people throughout the decision-making organization and foster something of a consensus among the interests affected by the recommendations. (B. L. R. Smith, 1966, p. 239)

The aforementioned counterforce strategy—the idea to target enemy silos instead of cities both to deter the enemy and to defend yourself in case deterrence fails—for example served as the basis of a wide and diverse discourse coalition in the early 1960s that included actors from McNamara’s Department of Defense, the Air Force, the strategic community, and even some humanist deterrence critics. Wide coalitions that seemingly cross-cut traditional cleavages—for example those along perceived material interests—can secure the lasting influence for an idea, as it happened with counterforce, which is still the centerpiece of the US’ nuclear deterrence doctrine (cf. United States Department of Defense, 2010b).

A further characteristic that influences the likelihood of a text becoming embedded in the discourse is the form or genre of the text. Genres are recognized types of communications that are characterized by specific conventions (letters, memos, announcements, special reports etc.). Texts that embody a recognizable genre are more likely to be easily interpreted by other actors, thus they will more likely use these texts. Genres are

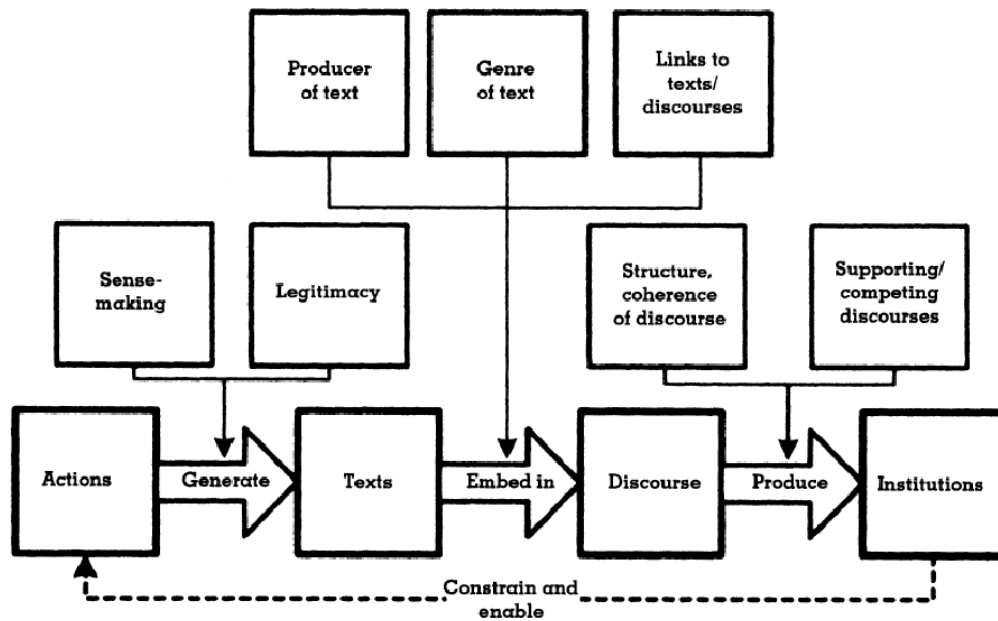
especially important in a bureaucratic setting as the proper presentation in the proper genre can assure that the idea embedded in a text reaches the desired audiences.

Finally, if a text explicitly or implicitly refers to other established and legitimate traditions, individual texts and/or discourses, it is more likely to be “taken up”. By referring to other texts/discourses, actors can invoke shared meanings, making their texts more legitimate and comprehensible. Since most policies invoke several macro-discourses, at least a general reference to these is a requirement (Hajer, 1995). If an idea embedded in a series of texts is able to invoke several traditions, it might serve as the basis of a policy coalition (Bulkeley, 2000; Hajer, 1995).

3.5. The institutional effects of discourse

The likelihood that a discourse will produce an institution depends on a number of factors that are related to the internal structure of the discourse itself. If the discourse is coherent and structured, it presents a more unified view of a certain aspect of social reality, which then can become taken-for-granted. If, however, the texts within a discourse contradict each other, or their relationship is not clear, the discourse’s implications for action can be renegotiated more easily, therefore the discourse can only be a weak constraint on action. The model is summarized in Figure 2 on the next page.

FIGURE 2
A Discursive Model of Institutionalization



Source: Phillips et al., 2004, p. 641.

Though cohesion for a dominant discourse is not a necessary prerequisite, if texts produce a coherent and structured discourse, the discourse will present a more unified view of a certain aspect of social reality, acting as a strong constraint on agency (cf. paradigms in Kuhn, 1996). This is one of the strong points for instance of deterrence theory: texts follow an internal—often circular—logic, thereby foregoing contradiction and reinforcing the image of naturalness. If, however, texts within a discourse contradict each other, or their relationship is unclear, the discourse’s implications for action can and in fact often will be re-negotiated, therefore the discourse can only be a weak constraint on action.⁸⁴ A classic example for such a constant re-contextualization is the case of global warming. Even though the scientific consensus appears to be solid, interested parties can still challenge the findings and the derived policy implications. The intra- and inter-discourse relations of texts thus explain why

⁸⁴ An example could be cycles in economic theory that revolve around the opposition between Keynesianism and neoliberal monetarism.

persuasive ideas are not immediately turned into policies. Persuasiveness explains how ideas can enter a policy discourse, but once there, they need to achieve relative dominance within the discourse. The stronger this dominance, the more coherent the discourse will appear, and consequently the more likely idea institutionalization will become.

Still, even though a policy discourse often appears to be complete, it is never fully coherent, and therefore is always subject to challenges. Hence, self-aware agents can act self-interestedly and achieve discursive change to alter reality so that it privileges their perceived interests and goals. Since DI, similarly to other interpretive approaches, does not accept at face value what actors say about their beliefs, this bid for discursive change can very well entail the strategic use of certain ideas to further interests constructed on a different basis. Nevertheless, strategic use still presupposes an awareness of discursive surroundings—i.e. a reflexive interpretation of the environment—so self-interested actors will support persuasive ideas, without necessarily internalizing them. When actors use an idea as a rhetorical device, they do so because they believe that it will get a beneficial response to their position. So an actor's choice of rhetorical patterns can be explained by referring to his or her beliefs and preferences about patterns of rhetoric in their wider webs of beliefs, prior to relating these wider webs of beliefs to tradition and dilemmas (Bevir & Rhodes, 2010, p. 32). This is essentially a reiteration of my earlier argument about the importance of actors' interpretation of their environment prior to making choices about argumentation.

The three case studies of this dissertation, organized in chronological order, demonstrate how preferences about rhetorical patterns change over time, and how awareness about others' preferences may involve an element of learning. To twist the popular quote on clarity from Sun Tzu: in order to be able to give "orders", one must be understood (Sun-Tzu,

1994, ch. 10, par. 18). Learning which patterns “work” with which audience, and translating one’s own ideas to the corresponding tradition’s language increases the chances of persuasion and subsequent discursive domination, as it did with RAND’s “trial period” in the first half of the Cold War. Changing patterns of policy-making under the Kennedy administration already show how a successful, but issue-specific discursive strategy may enable the proliferation of policy ideas and beliefs to other issue areas. Crucially, learning here implies reflexivity, not a logic of pure practicality. To summarize and reiterate, since the framework places emphasis on the discursive influence of the ideas themselves, whether an actor truly believes in and internalizes the idea is of secondary importance to their use.

3.6. Persuasion: from theory to application

The policy-making process takes place in a realm of competing ideas. As I have argued, persuasion in such an environment is never an automatic process. Discursive influence has a rhetorical element: the content and form of ideas both matter. Policy ideas manifested in texts—due to their problem-means-solution structure—carry a certain way of communicating, measures of validity, causal beliefs and so on. Their authors rely on storylines/narratives, symbols and other semiotic tools to convey meaning. Such tools can be used to argue and persuade (in the rhetorical sense), but they will also contribute to setting the boundaries of the discourse relevant to a particular policy field. Through these elements, previously unproblematized discourses can be implicitly invoked, thereby extending the scope of the original policy discourse and enabling wider discourse coalitions behind the idea in question.

A correspondence of methods between a policy idea and a respected scientific discipline, for example, can imbue actors familiar with the new discourse with an epistemological edge which translates to policy authority. For instance, McNamara’s “whiz

kids” that carried out the reform of the US Department of Defense under the Kennedy Presidency enjoyed the Secretary’s support because of his respect for and familiarity with the science of operations research/systems analysis. In sum, it is crucial to emphasize that this “baggage” an idea carries also contributes to its persuasiveness, beyond its means-ends conceptualization. Ideas can correspond to other discourses and traditions simply through the methods they apply, or the symbols they use. This mechanism demonstrates how agency and structure meet in interpretation. Recognizing contestation within the discourse highlights the role of reflexive agency that promotes ideas relying on discursive abilities to produce or challenge taken-for-granted structures. A mapping of texts in turn identifies shared grammars across macro-discourses –see the three discourses that require viability—and also underscores the importance of institutional-organizational structures and material constraints on discourse production. In the next section, I will introduce the specific discourse analytical methods that will enable the uncovering of both context and persuasion.

3.7. A methodology for explaining and understanding ideational influence

Contextual suasion as a micro theory of ideational influence, fueled by the conceptual toolkit of interpretivism and discursive institutionalism, lends itself to a number of methods and methodologies.⁸⁵ In this section, I will rather focus on the latter as the methods I rely on are on the one hand the result of the particular methodological choices I make, and on the other hand are heavily influenced by initial engagements with my empirics. Consequently, I will devote most of the section to justifying the underlying methodology, and devote relatively little attention to the comparative merits of the methods it requires. The section will conclude with issues of case selection and sources.

⁸⁵ For a discussion, see Bevir & Rhodes, 2005; Sikkink & Finnemore, 2001.

3.7.1. Methodology: induction, interpretation and historicization

Methodology refers to “those basic assumptions about the world we study, which are before the specific techniques adopted by the scholar undertaking research” (Fierke, 2004, p. 36). They are elements of “styles of reasoning” that encompass epistemological and ontological requirements, and formulate their “own scientific standards and truth conditions” (Pouliot, 2007, p. 360). In the following, I will present a methodology that follows both the ontological and epistemological tenets of interpretivism I have outlined, and is inductive, interpretive, and historical. Following the subjectivism, it includes a multi-level mechanism of interpretation which reflects the logic of contextual suasion I outlined: analysis begins with the inductive recovery of agents’ realities. These are then objectified through the interpretation of intersubjective contexts. The analysis concludes with further objectification through historicization, which highlights the temporality of meanings in context. Crucially, these three steps are not used along a linear logic, but in an integrated fashion. Induction is used to recover subjective meanings, interpretation objectifies meaning in its intersubjective context, whereas historicization traces changes in meaning over time.

Induction is both crucial and inescapable for constructivists as well as interpretivists, since “theorization [by the analyst] destroys meanings as they exist for social agents” (Pouliot, 2007, p. 364). As knowledge and social reality mutually construct each other, when tracing knowledge—meaning as it exists for social agents—the analyst has to refrain as best as possible from imposing preexisting categories. Thus, as is common for interpretative research, theorizing does not necessarily predate empirical analysis: analytical categories might emerge from the data. The goal for the analyst is to substract agents’ interpretation of their world, the background ideational abilities/traditions they rely on—essentially how they

reify certain beliefs. Background ideational abilities and traditions work around this problem: they are Janus-faced concepts, to use Adler's terminology, since "in addition to being intersubjective knowledge embedded in practices, [they are] also the subjective representations of intersubjectivity" (see Pouliot, 2007: 369; cf. Schmidt, 2008, 2010). This formulation reiterates interpretivist arguments I visited earlier, most notably the difference between tradition and practices, as well as the assumption that subjective beliefs can be about intersubjectively shared practices/traditions. In terms of methods, induction favors semi-structured interviews as the researcher extracts from agents their subjective interpretation of their world. Due to the historical nature of the present research, interviewing was no longer possible. Instead, I will rely on the series of interviews conducted with RAND and Air Force personnel during the Cold War and early 1990 within the Smithsonian's RAND Oral History Project (ROHP), as well as on interpersonal correspondence between key actors, to trace how defense rationalists gave meaning to both the Cold War reality, and their own role in it. In addition, I consulted the personal writing of key analysts and Air Force personnel to get an understanding of their beliefs about the policy environment.

Social scientists interpret an already interpreted world. In Pouliot's (2007, p. 366) words "through interpretation, subjective meanings become objectified as part of an intersubjective context. To objectify meanings is to inquire into what something means not for a specific agent but in a larger context of intersubjectivity." Interpretivism "rests on a philosophical analysis of action as meaningful". It does not prescribe "any particular heuristic or any method of creating data; rather, it prescribes a particular way of recounting data and theories that might be generated using any of a variety of methods and heuristics" (Bevir, 2006, p. 283). Methodologies that highlight communication and reasoning are most suitable

to analyze construction, reconstruction and deconstruction⁸⁶, and for the purposes of this analysis, I will rely on argument analysis (Crawford, 2004; P. Green, 1968; Hajer, 1995) and frame analysis (Goffman, 1974; Rein & Schön, 1993) to reconstruct how defense rationalists argued for the rationality of their policy ideas, and rendered them persuasive for diverse audiences. In particular, two audiences are crucial for the analysis: RAND's patron, the US Air Force, and a general audience targeted through open publications. However, given the secretive nature of nuclear policy-making, and the Air Force's limiting role as a gatekeeper for RAND ideas of *direct* policy relevance, this second audience will not be analyzed.

Discourse has come to mean a great many things in the social sciences. Many definitions coexist that are mostly compatible, yet differ in terms of their scope and focus. For the sake of methods and methodology, following Vivien Schmidt (2008, 2010, 2012), I defined discourse as a collection ideas and the mechanism through which these ideas are transmitted. In terms of data, discourse is a structured collection of texts connected to a macro topic, such as nuclear strategy. In terms of interpretive methodology, discourse analysis will serve to highlight why certain understandings of a policy problem became dominant: it can help us uncover the “great questions of an age” *in context* (Crawford, 2004)—in this case, the existential questions of nuclear war in a Cold War reality. Both limited and guided by institutional analysis, discourse analysis can be used to identify and follow the discursive strategies of key actors as the originator of new interpretations and resulting denaturalization of existing rule.

There are many approaches within discourse analysis that could be applied to the topic at hand, such as the aforementioned argument analysis (Crawford, 2009; Hajer, 1995), metaphor research (Hirschbein, 2005; Lakoff & Johnson, 1980; Lakoff, 1991), language game

⁸⁶ For a shopping list of potential methods see Klotz & Lynch, 2007, Chapter 3.

analysis (Fierke, 1996), or predicate analysis (Milliken, 1999). For the purposes of this dissertation, a combination of some of these methods will be necessary. Linking these methods will be individual texts as carriers of ideas, serving as the basic unit of analysis. Observing contestation within the discourse highlights the role of reflexive agency promoting ideas and relying on discursive abilities to produce or challenge objectivated structures. A mapping of texts in turn identifies shared grammars across macro-discourses, and also underscores the importance of institutional-organizational constraints on discourse production. Frame analysis and argument analysis highlight contestation, but also help us identify mechanisms for successful frame construction—an integral part of discursive strategies.

Politics is all about how certain actors successfully impose their definition of a policy problem on other actors. Different actors have different means to influence the distribution of resources through policy: some rely on pure coercion, others on economic might, while some on the manipulation of symbols (Onuf, 1989, p. 230). Civilian strategists as experts in the policy process rather fall in the third category: while relying on their scientific authority, they not only offer technical advice to decision-makers (be it policymakers or managers), but also provide “conceptual and symbolic language” for use in the policy discourse (Astley & Zammuto, 1992). The supply of such symbols can both lead to manipulation on behalf of other actors (take for example the misuse of science in the climate change debate), or, if structured within a policy frame and transmitted via a discursive strategy, to the reinterpretation of the policy problem (see epistemic communities). Yet, as contextual suasion posits, such manipulation/frame building always unfolds in a constraining and enabling context that is also very much shaped by institutions.

Meanings are never fixed. Denaturalizing the natural is the same as claiming something is constructed, that something taken for granted it is contingent and contextual. Context on the most general level in turn is history, thus, constructivism, just like interpretivism, is inherently a historical approach. As the third element of subjectivism, history guides attention to the emergence of new practices, but underplays the importance of agency. Consequently, it needs to be coupled with induction and interpretation. When dealing with a *change in worlds, through words*, analysis has to be focused on pattern changes in the context: in the meanings actors intersubjectively assign to their world. Analysis then unfolds “through the searching of texts plural” in order to identify “the process by which the central categories and entailments of one world relate to the transformation of that world as a whole” (Fierke, 2004, p. 37). To do so, the analyst needs a historical narrative, “a dynamic account that tells the story of a variety of historical processes as they unfold over time” (Pouliot, 2007, p. 367). In other words, the analyst needs to construct “a multi-layered narrative, structured by the rules of a range of grammars” adding “layers of context” to a thickening description (Fierke, 1998, p. 63). Unlike genealogies that focus on disjunctures, narratives create a story with a beginning, a middle, and possibly an end. As such they highlight potential influence, change and outcomes. A historical methodology enables the incorporation of the changing institutional environment of nuclear strategy-making into the analysis of discourse, thereby contextualizing it.

3.7.2. Methods

When choosing the proper method for the task at hand, researchers need to take into account the three interrelated aspects of subjectivism: they need to interpret, use induction and

historical analysis. In terms of textual analysis, the dissertation relies on argument and framing analysis.

Argument analysis (Crawford, 2004, 2009) or “argumentative discourse analysis” (Hajer, 1995) can help analysts highlight the active aspects of persuasiveness: how argumentative agents render their ideas persuasive. As argument analysts hold, not all arguments are convincing or persuasive, but the *process* of argumentation is nevertheless important, and the content of argument even more so. Arguments differ from storytelling as they are attempts at persuasion, and not simply command, inform, coordinate or express. In case of policy experts, argument about the policy problem and its possible solution are the key elements of active persuasion: demonstrating how an idea fits the policy environment. However, other forms of speech, such as demonstration and expression, can also reinforce persuasiveness in the passive sense: if an idea is constructed and presented in a way that its adequacy and relevance are readily recognizable to the audience, then its presentation does not necessarily require argumentation. Nevertheless, the process of argumentation is key to highlighting how ideas engage other ideas and traditions for dominance, and is therefore central to contextual suasion.

Argumentation can involve multiple forms from top down logical inference to sideways analogical/metaphorical reasoning. Logical inference in an abstract form constructs premises X and Y which in turn yield conclusion Z. With metaphors and analogies, as I discussed earlier, the structure differs: if X then Y. Situation Z is like X so then also Y. Neta Crawford (2004) identifies a number of generic arguments that fit one of these profiles: 1) Practical: how the social world works; 2) Scientific: how the natural world works; 3) Identity arguments: who we are and how we should behave; and 4) Ethical: what is good and what

ought to be done. Naturally, these are archetypes and not definite categories. Rules of inference and standards of evidence may vary across them, and a single text can even involve a mixture of different types. For instance a scientific argument about the social world can channel in identities conceived in terms of a tradition. Thus, arguing for a nuclear strategy and corresponding posture can be based on complex calculations (scientific standards of validity), but can also refer to an American identity-based national interest.

Following, Rein and Schön (1993, p. 146) and building on Goffman's original conceptualization, I define framing as "a perspective from which an amorphous, ill-defined, problematic situation can be made sense of and acted on". Or, to put differently, as "a coherent set of stereotypical expectations for a recurrent situation" (Chilton, 1985c, p. 114). In policy discourses, frames are revealed through the storylines/narratives that their proponents tell about the policy situation. These problem-setting stories are often based around the previously discussed generative metaphors, analogies, and other tools, facilitating their identification for the analyst. Frames link causal accounts of policy problems (what is the problem?) to particular proposals for policy action (what can be done?). In addition, they "facilitate the 'normative leap' from *is* to *ought to*" (Rein & Schön, 1993, p. 147). Frames are never self-interpretive, they need to be made sense of by someone who develops the frame, shows its implications for action, and develops metaphors, as well as other symbolic tools and communication about the frame for easy dissemination. Research organizations like RAND often assume the role of frame sponsors, naming the issue requiring policy attention, and specifying how frames, policy development and policy action need to be linked.

Frames are a more general component of discursive strategies than arguments. Once internalized by other actors, the frame empowers its originator, since *arguing* for a policy idea or specific proposal becomes easier due to meanings shared via the frame. As such, frames resemble traditions, but are much more narrow, volatile and contingent. Policy frames always offer a simplified representation of the problem, thus controversies among competing frames can appear. Some frames may even deny the existence of a policy problem (anti-nuclear groups) whereas others may represent a differing view of a similarly defined problem (various theories of deterrence). Crucially, multiple frames can be consistent with the same action, and the same frame can be used as a source for different courses of action. Some ideas do not come with an overarching frame that can be used to interpret the policy environment. However, frames can be constructed around ideas and/or existing frames can be adopted to translate the idea to other policy fields. An idea's or a tradition's ability to supply such frames contributes to its discursive dominance.

The use of competing frames in a policy discourse invites the question of relativism: common sense dictates that not all frames are equal, yet analysts are often unable to account for different interpretations of a text. Rhein and Schön therefore suggest to look at how actors themselves resolve frame conflicts, and how they judge conflicting frames. This logic once again draws attention to the context of the policy debate. Objective benchmarks alone are inadequate without context. Scientific standards may help explain defense rationalism's rise, but how and why did it matter that the ideas were presented *as scientific*? In chess, the context of a match and the rules of the game enable us to assess the rationality of a move. Policy frames are judged by the criteria used in the discourse around policy formulation.

Metaphors are one of the central tools of naming and framing: they are used to assign meaning to objects and phenomena to facilitate action. They provide a common ground in-between discourses (Lakoff & Johnson, 1980), they can appear in the form of “discursive contamination” (Hajer, 1995, p. 67), see for example the widespread use of Darwinism in the social sciences. As anchors of inter-discourse/inter-tradition communication, they give actors the possibility to devise their own interpretation of the problem, “filling out the gaps” (Hajer, 1995) As more and more actors accept and use them, they gain a ritual element. By performing the ritual, proponents of the tradition that carries the metaphor can gain a sense of belonging and exclusivity, as was the case with nukespeak in the defense community. (Cohn, 1987) In the case of expert ideas, metaphors have an additional function in reducing complex research to visual representations and catchy one-liners. As with frames, crises (dilemmas) are the typical testing ground of generative metaphors and historical analogies (Fierke, 1996; Lakoff, 1991). Used by conscious agency, these metaphors can achieve discursive dominance. But one should not forget their constraining effects: objectification limits action, as can be the case with the widespread use of the Munich analogy, but denaturalization on the other hand enables it.

Conclusion to Part I: Experts and discursive influence

Part I of this dissertation has engaged theoretical approaches to expert ideas with the aim of constructive criticism. By pointing out the conceptual weaknesses of agential, structural and practice-driven approaches in IR, it laid the foundations for a synthesis under the meta-theoretical umbrella of interpretivism. As I have shown, despite their mixed record in engaging the policy role of ideas from a discursive point of view, both constructivism and institutionalism have produced internal critiques that offer valuable insights into the potential solution of these problems, mostly related to epistemic positivism, a Cartesian division between the ideational and the material, and rigid structuralism. Though these critiques have not yet produced a full-fledged theory of policy-making/institutions, I have suggested that they could be nevertheless united by using the conceptual triptych of interpretivism: beliefs, traditions and dilemmas.

Interpretivism, with its rich philosophical roots, offers a humanistic approach to policy-making that successfully integrates structural elements through the concept of traditions. According to interpretivism, all agency is situated: individuals take actions that are guided by their beliefs about the world. These beliefs in turn are conditioned—but not constituted—by their environment, conceived as a web of meanings. Traditions represent the structural element of beliefs: they guide individual action, are transmitted via socialization, and are intersubjectively shared across actors. Dilemmas on the other hand represent instances where available traditions are in question, allowing reflexive agents to transform or even abandon these, depending on their interpretation of the dilemma. In sum, traditions and dilemmas contribute to the context in which ideas compete, and idea persuasiveness in turn has to be established vis-à-vis this primarily discursive environment.

Discursive institutionalism supplies the conceptual tools to assess institutional elements of this context. Unlike traditional new institutionalism, DI understands institutions as context: policy is not just about the ideas and the texts that carry them, but also about the institutional context that shapes their dissemination via discourse. For DI, institutions are no longer external rule following structures, but are rather simultaneously structures and constructs internal to agents whose “background ideational abilities” (akin to traditions) within a given meaning context explain how institutions are created and exist, as actors use these abilities to make sense of the world and act upon it. “Foreground discursive abilities” in turn explain how institutions themselves change and persist. They refer to peoples’ ability to reflect on and think outside the institutions in which they continue to act, critically approach and problematize them, and to *persuade* themselves as well as others to change their beliefs about their institutions, and then take action to change them (Schmidt, 2010, p. 16). Translated to the vocabulary of interpretivism, foreground discursive abilities manifest themselves in discursive strategies, ways in which agents “seek to frame and present particular themes, issues and arguments with a view to shaping the context of political debate in a manner that is considered to be most conducive to the attainment of their objectives” (Kettell, 2012, p. 3).

In this conceptualization, as I showed, the political power and influence of experts such as defense rationalists fundamentally differs from that of “traditional” actors of bureaucratic politics: they primarily exert influence on representational practices through their (expert) ideas, which frame the problem itself, construe power relations by assigning policy roles, list acceptable policy practices and define the universe of possible future policy problems. Therefore, a discursive institutionalist approach to policy-making also implies that experts are not only interested in the success (implementation) of particular policy proposals,

but also in the dissemination of their policy beliefs—covering a wide range of elements from problem construction to causal beliefs and appropriate methods—which (British) interpretivism captures under the concept of tradition.

In order to assess the discursive influence of experts and their ideas I suggested a micro-theory of persuasion that I call contextual suasion. Contextual suasion links the agency concept embedded in interpretivism, and discursive institutionalism's concept of structure (i.e. institutions) through a mechanism of idea dissemination via textualization and re(con)textualization. It understands persuasion as a correspondence between idea and its environment—a correspondence that is not necessarily static, but can be manipulated. The more an idea is in line with its context—a composite of traditions, beliefs about interests, other ideas etc.—the more it “sounds right” to audiences, and is more likely to be accepted either as an internalized belief or as a strategic tool. Crucially, contextual suasion shows that persuasion entails both a passive (structural), and an active (agential) element. Since persuasiveness is understood as a correspondence between idea and context, an idea may be persuasive from its initial introduction on. This implies that successful ideas can be successful purely because they successfully incorporate certain shared elements of their context. Put in rhetorical terms, this suggests that an actor's ability to persuade its audience may have little to do with his or her ability as a speaker: the text that transmits the idea may initially hold the necessary contextual links for successful persuasion.

On the other hand, conscious reflexive agents that are aware of their context can shape an idea's persuasiveness by employing their foreground discursive abilities. In this latter sense, contextual suasion is akin to rhetorical argumentation as it involves a strong choice element. These choices are important precisely because of the aforementioned passive

element of persuasiveness: the actor's ability to persuade its audience may have little to do with foreground discursive abilities. The non-passive (non-correspondence) version of persuasion therefore should not be outcome-based but should involve the assessment of the choice of rhetorical elements made by the speaker. These can range from genre to intertextual and interdiscursive references, or even tone. It is precisely here where the choice element becomes important and elevates the discursive institutionalist concept of persuasion above mere interpretation. Yes, actors do interpret, and reasoning is always local (Bevir et al., 2013). They interpret their surroundings (policy context) and then make their choice about persuasive tools which they believe will work in the given setting (audience & context). When making these choices they draw on their own traditions but only as a first, go-to step. Their subsequent choice is what makes them bona fide agents. This kind of agency also distinguishes contextual suasion from practice-based approaches as the choices made during attempts at persuasion cannot be habitual. It is precisely for this choice element that actors do not always repeat the same kind of action, making agency-driven change possible.

Through all these elements, the theoretical framework proposed in this dissertation to examine the influence and longevity of defense rationalist ideas offers a number of contributions and challenges to the existing literature. First, it furthers the debate between reflexivism and materialism by presenting a powerful hard case for showing idea influence. Though the dissertation does not subscribe and contribute to the by now rather empty competitive testing of ideas versus interest-based causal models, it nevertheless seeks to demonstrate the importance of ideas and discourse in explaining and understanding policy outcomes through a case study that conforms to the rigorous design demands of positivist scholars of idea

influence. As I have argued earlier, the field of national security policy seems rigidly bureaucratic and (material) interest-driven. Many services—some the general public hardly ever hears about—are competing for scarce funding, the military industry lives off government contracts, and the state seeks to maintain and renew these so that the industry can survive (Ball, 1980). The point of policy-making, i.e. national defense, itself is a very conservative notion. Even if its shapers are aware of its constructed-contingent nature, bureaucracies tend to become “sticky”, so the way in which the national interest is constructed hardly changes rapidly when it comes to organizational actors, processes and ideas (De Castro, 2000). All things considered, the very basic characteristics of policy-making within the national security community render it prone to creating rigid institutional structures and practices. In such a setting, scientific advice hardly matters for its commonly attributed qualities, i.e. science as objective and rational, something that lies above petty organizational interests and bureaucratic muddling through. Expert counsel instead seems subservient to bureaucratic politics: policymakers take the advice that they think will secure the bigger budget in policy debates. Showing on the one hand that strategic selection alone is a sign of importance for science-based policy advice, and on the other hand that even such a particularly rigid environment is not exempt from idea-based influence, are contribution to this ongoing debate.

Secondly, and in connection with the previous point about sticky institutions, the dissertation contributes to the revision of new institutionalist approaches to ideas and change. Instead of the ad hoc reliance that has plagued historical institutionalism, the framework promoted here integrates ideas into a markedly institutionalist framework through discursive institutionalism. Discursive institutionalism is thus presented as the primary platform for an interpretivist revision of ideational new institutionalism. The framework introduces discourse

to institutionalist explanations and challenges the structuralism of the other three branches of institutional approaches by emphasizing the role reflexive agency can play in institutional change. For discursive institutionalism, ideas are crucial both in terms of structure (guidelines for individual action), and agency (reflexive agents relying on ideas to change institutions).

Third, through discursive institutionalism, the dissertation provides the missing link between interpretivism and institutionalism; and does so across a gap that has often been problematized by critics of interpretivism (e.g. McAnulla, 2006). An interpretivist bridge is exceptionally valuable for both literatures. On the one hand, it does away with the rigid structuralism of new institutionalist analyses by drawing attention to agency situated in institutions. Understanding the genesis, life and change of institutions through the hermeneutical cycle, while explicitly accommodating agency not only makes an institutionalist framework more comprehensive, but it also makes it more dynamic, counteracting the status quo bias that institutionalists are often criticized for. On the other hand, such a synthesis renders interpretivism, a markedly agent-centric approach, more attentive to questions of structure and institutions, most notably that of (institutional) continuity. As demonstrated, DI captures this continuity through the mechanism of discursive dominance secured via persuasion, thereby explaining how traditions/background ideational abilities become institutionalized.

Finally, the dissertation continues theoretical and empirical work on interpretivism and discursive institutionalism. Specifically, Part II—the analysis of defense rationalism in the early Cold War United States—will be used to empirically apply contextual suasion, the micro-theory of persuasion advanced in this part. Discursive institutionalism is a fairly new school of thought—Vivian Schmidt’s seminal article was published in 2008—and thus it

often remains on the level of abstract meta-theoretical debates about the role of discourse in policy analysis, or the relationship between structure and agency in explaining political outcomes. Similarly, scarce empirical application has also been raised as a criticism against interpretive political science (e.g. Wagenaar, 2012). Though these debates are essential in advancing our knowledge about politics, empirical research is crucial for developing, as well as legitimizing both interpretivism and discursive institutionalism. In order to do so, the dissertation proposes contextual suasion as an operationalizable micro-theory of ideational influence that builds on the new institutionalist conceptualization of persuasion, first proposed by Peter Hall (1989a). Contextual suasion accounts for a crucial question in reflexivism: why do certain ideas and not others get selected and subsequently form the basis of institutions/traditions?

With this in mind, I will now move on to Part II of the dissertation that assesses the persuasiveness and influence of defense rationalist ideas through three case studies, each representing a distinct dilemma that defense rationalists had to engage. The variance in persuasiveness that these cases attest to is crucial for the denaturalization of defense rationalism as it highlights the historical contingency of these abstractions when it comes to their influence on policy decisions.

PART II: EMPIRICS

Bombers, bases and cities: Three cases of persuasion

This dissertation poses its central research question as *What explains the initial successful institutionalization of defense rationalism?* As the Introduction illustrated, the policy experts known as defense rationalists have taken a pronounced role not only in their specific field—nuclear strategy—but also in the wider sciences and policy-making practices. They even had an impact on popular culture, as the lasting popularity of Stanley Kubrick’s *Dr. Strangelove* shows. Due to defense rationalism’s status as both the source and the object of social scientific inquiry, the available literature on its origins is often distorted and swings towards either of two specific narratives: seeing defense rationalists as geniuses with the right ideas at the right time, or understanding their ideas as a step in the organic development of policy-making culture in the United States. This early period of institutional flux, which eventually culminated in the wide-ranging institutionalization of defense rationalism under the Kennedy administration, is pivotal for understanding defense rationalist influence. Moreover, as I suggested in Part I of this dissertation, this influence should be understood primarily in discursive terms and through contextual suasion—the mechanism of persuasion I propose as an empirically applicable micro-theory that incorporates discursive institutionalist and interpretivist elements. Part II of the dissertation applies these concepts and mechanism on three case studies, each structured around a hallmark RAND project. These are all generally seen as key documents of deterrence theory and defense rationalism.

The case studies are preceded by Chapter 4, devoted to providing a general overview of the institutional and ideational context of US Cold War nuclear strategy that defense rationalists at the RAND Corporation had to interpret in order to make sense of their own role

as experts. The chapter aims to equip the reader with a rudimentary understanding of key elements of this environment, including the respective traditions of the Air Force and defense rationalists which frame all persuasion attempts discussed in the case studies. This crucial contextual element serves as the backbone of the analytical narrative I use within each case study: that of conflicting traditions and persuasion as an exercise in cross-tradition translation. In other words, the empirical analysis involves identifying ways in which defense rationalists and military officials legitimize themselves: who they are, what they do, and what nuclear strategy should be about. On the one hand, scientists claimed that they were the true experts: since there had been no experience with nuclear war, their generalizable knowledge that built on the tenets of modern social and natural science was the only tool to make strategy with. But on the other hand, military officers could also claim they were experts of the field by relying on experience with warfighting in World War II, which, at least in their view, entitled them to have a say on what nuclear war should be like. Key to this co-existence of opposing interpretations within nuclear strategy-making was the meaning assigned to nuclear weapons. If one embraces the nuclear revolution thesis, then the military argument is mute. But if one conventionalizes nuclear weapons, then the defense rationalist claim to superiority is weakened. As the cases will show, the policy environment of the early Cold War could in fact accommodate both views, enabling coexistence and also productive rivalries that were crucial for defense rationalist influence.

Due to this conflict of interpretations, for defense rationalists, the key to reconciling the two traditions in persuasion attempts was to demonstrate that 1) their new methods were better than those of the military in that they produce better policies; that 2) the new methods gave an edge vis-à-vis competitors of the patron service (scientific authority in interservice debates); and that 3) the new methods and ideas in essence were not that different from

existing traditions. Even though defense rationalists lacked a proof-of-history argument, they could refer to the nuclear revolution thesis—which gradually gained in acceptance in the public and political discourse—and could demonstrate not the timelessness of their method, but—through discursive tools like metaphors, historical analogies and cross-textual/cross-discursive references—the commonsensibility and familiarity of the logic that lay behind their “science of warfare”. This opposition between two players and two traditions across a series of policy dilemmas underlies all case studies.

I have selected three cases that approximate aspects of persuasion to different degrees, so that room is left for an assessment of failed and successful persuasion, as well as automatic persuasion, i.e. passive persuasion as correspondence that involved little creative agency *after* initial presentation. These three cases involve three ideas that RAND analysts themselves identify as important contributions, as well as three dilemmas identified by the Air Force to which these ideas were presented as solutions. These are the dilemmas of organizing an aerial bombing campaign against the Soviet Union as the operational translation of Presidential containment policies (case #1, “Bombers”); the dilemma of the end of nuclear monopoly and resulting US vulnerability (case #2, “Bases”); and finally, the dilemma posed by the Navy’s Polaris submarines which put to question Air Force bureaucratic primacy by building on the second dilemma *and* offering a theoretical/technological alternative to it (case#3, “Cities”). The selected cases epitomize the “science of warfare” developed at RAND: they were highly complex studies of nuclear warfare that relied on cutting-edge formal methods, and represented the kind of “science-based argument” RAND has been known for.

These three case studies will be investigated through the following steps that are not necessarily chronologically ordered, but should be thought of as parallel aims. First, key ideas within the community are identified, using a variety of sources from RAND internal documents to secondary sources, as well as interviews. These ideas will be contextualized by identifying patterns across defense rationalist texts—texts which provide a “manifesto” of the science of warfare. Second, the non-linear evolution of these ideas will be traced in internal documents representing the expert debate. Though this stage also involves persuasion, since ideas that entered the Air Force were almost always backed by a RAND-wide consensus, internal debates will be downplayed so that they only serve to highlight the non-linearity of idea evolution. Third, attempts at persuasion within RAND-Air Force relations will be identified: who presented which version of the idea in what form to what audiences? Linguistic details important for the construction of a discursive strategy will also be identified. Fourth, I will look for *situated meanings* of concepts such as “war” “victory” “strike” “target” “damage” etc. within texts, which in turn will help me to identify what discourses might be relevant to the analysis as texts often invoke other discourses and traditions. Fifth, and parallel to the first four points, the Air Force intra-service discourse will be assessed in order to identify important dilemmas that the bureaucracy faced. Special attention will be devoted to then current doctrine and priorities, presidential politics, prevalent evaluation(s) of the Cold War, and most crucially, the interservice rivalry. Sixth, Air Force documents will be used to trace the reception of the defense rationalist idea, and its potential re-(con)textualization by non-experts. Finally, persuasion attempts and subsequent internalization of non-internalization by other actors will be assessed, with special attention to discourse coalitions that cross-cut traditional cleavages.

Chapter 4: Making sense of the policy context:

Institutions and clashing traditions

Discourse production always takes place under formal and informal constraints that take various forms, ranging from simple temporal or physical barriers to normative prescriptions. Defense rationalists, as producers of ideas, also had to operate under a number of constraints that fundamentally shaped their attempts at affecting the macro-discourse of nuclear policy. When analyzing their impact, one constantly has to keep in mind these factors. As I explained in Chapter 3, contextual suasion emphasizes the importance of interpretation when analyzing persuasion: reflexive agents construct their discursive strategies based not only on their respective traditions, but also on their interpretation of their policy environment. Using their foreground discursive abilities, they tailor texts so that they resonate with this environment in ways the actors deem persuasive.

As an exercise in applied discursive institutionalism, this dissertation identifies these elements in their institutional and ideational manifestations. In order to equip the reader with a basic understanding of what the nuclear policy environment looked like in the analyzed, 1948-1963 period, the chapter offers a discussion of key components: the postwar science policy framework, Presidential policies and attitudes to nuclear weapons, the institutional structure of the postwar military with a special emphasis on nuclear strategy making, the interservice rivalry between the Air Force and the US Navy, and finally, the two conflicting traditions that frame this analysis: that of airmen, and that of defense rationalists.

Accordingly, the chapter departs from an overview of the postwar US science policy framework that set the terms of military-civilian cooperation for the Cold War, including the relationship between defense rationalists and their military patrons. Next, it discusses the

institutional background of nuclear strategy-making, with a special emphasis on presidential policies (the political context) and the institutional reforms that set the role-based identities of the armed services after World War II. These reforms and the structures they introduced underpin the organizational identity of the US Air Force. Consequently, the sections address the assigned role and bureaucratic interests of the service, as well as the background of the interservice rivalry between the US Navy and the Air Force. This fierce competition for prestige and resources was the primary source of legitimacy dilemmas for the Cold War Air Force. These dilemmas in turn offered entry points for defense rationalists to introduce their policy beliefs into the policy discourse. As a final institutional element, the chapter introduces the RAND Corporation as the major hub of defense rationalism. It offers a brief look into the institutional arrangements that made RAND unique among think tanks, but also the focal point of defense rationalist thought. As a transition into ideational elements, the section on the RAND Corporation also lists the specific methods, language and organizational ethos that characterized the think tank and flowed from its foundational documents. Finally, the chapter contrasts the traditions of the two main players—the Air Force and defense rationalists—though a narrative of inter-tradition translation. While the Air Force’s tradition formed the key ideational constraint on idea production at RAND, the defense rationalist tradition reflected a priori constraints imposed by a largely external macro discourse on science.

4.1. American science and the postwar military

The practice of employing civilians in military strategy planning was a fairly new phenomenon for postwar policymakers as it only dated back to the Second World War (1942-1945) when Western Allies relied on civilians for assistance in target selection for strategic

bombing, convoy route calculations and similar issues.⁸⁷ World War II brought a true revolution in science: both the Axis and Allied powers developed new technologies and strategies *during* the conflict, forcing close cooperation between military and civilian science. Vannevar Bush, a prominent policymaker of the US National Academy of Science's National Research Council, realized this necessity even before the war, and tried to bring down the barrier between civilian science and the military by drawing researchers to the National Defense Research Committee (NDRC), and then bringing them closer to the military during the war as the director of the Office of Scientific Research and Development (OSRD) (Collins, 2002, pp. 7–8). Bush's war policies induced changes that formed the basis of a framework that could survive the war. First, he drew scientists into the military at an unprecedented rate; second, scientists could remain at their home institutions or created new ones (e.g. MIT's Radiation Laboratory); third, scientists were funded on a contractual basis in order to produce research, not a physical product; fourth, information was compartmentalized for security reasons; and finally, Bush fostered a collaboration between the military and the scientific community to correspond to battlefield requirements. Though these methods were not entirely new in the US, the scale on which they were implemented was.

This unprecedented level of cooperation during the war was praised both by the military and civilian scientists, consequently, both sides called for an institutional structure that would carry it over to the postwar years. Bush pioneered the creation of this postwar framework: in July 1945 he wrote his report entitled "Science the Endless Frontier – A Report to the President" (Bush, 1945) to urge President Truman to assist the employment of

⁸⁷ US military/government-science cooperation dates back further in time. As grand narratives like that of Bell (1988) or Hoffmann (1977) tell us, science has been a centerpiece of American exceptionalism since the Revolution. The US military in particular has been a patron and collaborator of science since the Civil War.

scientists for long term “basic research” in both the military and public administration. As Bush argued that

it has been basic United States policy that Government should foster the opening of new frontiers. It opened the seas to clipper ships and furnished land for pioneers. Although these frontiers have more or less disappeared, the frontier of science remains. It is in keeping with the American tradition - one which has made the United States great—that new frontiers shall be made accessible for development by all American citizens. (...) Without scientific progress the national health would deteriorate; without scientific progress we could not hope for improvement in our standard of living or for an increased number of jobs for our citizens; and without scientific progress we could not have maintained our liberties against tyranny. (Bush, 1945)

Due to Bush’s efforts, a new framework for expert advice was created in the immediate postwar years, characterized by a proliferation of ad hoc advisory committees and research groups patterned after the NDRC. The use of experts was further facilitated and encouraged by a growing “cult of experts” in the United States, which in turn coincided with a massive expansion of public bureaucracies: politicians, in order to appear more competent towards the public, began referencing expert advice (Lyons, 1963, p. 500).

Apart from revolutionary new technologies, new scientific methods were also developed for the war effort, most importantly operations research (OR), created to help the strategic bombing effort against Japan and Germany. Operations research was defined as a “scientific method of providing executive departments with a quantitative basis for decisions regarding the operations under their control” (Fortun & Schweber, 1993, p. 610). Deemed efficient by the US Strategic Bombing Survey (1946a), the military wanted to maintain this valuable asset after the war. All branches of the Armed Forces created their own OR groups⁸⁸, and many US corporations also created OR research departments to improve production

⁸⁸ For example the Navy’s Operations Evaluation Group at MIT, the Air Force’s Operations Analysis Group, the Army’s Operations Research Office, and the Joint Chiefs’ Weapons Systems Evaluation Group.

management. As a consequence, a competition for the best scientists between the military/administration and the corporate sector ensued, forcing the military to create a complex incentive system to attract experts from academia and the private sector, as well as to keep them in its service.

Experts in military employment were soon faced with similar problems they dealt with during the war. The increasing anxiety over the Soviet threat and unfavorable developments in Europe in the aftermath of the war created a warlike atmosphere that affected existing institutions and helped create new ones. Military interests received top priority, thus researchers looking for funding had to argue for the practical, military applications of their research. Warfare politicized science: both its research agenda and the ways in which it proceeded. Historians commonly call this phenomenon the “overmilitarization” of science or “science in permanent mobilization” (Solovey, 2001, p. 67), culminating in the birth of “military-industrial complex” President Eisenhower warned Americans about in his farewell speech (Eisenhower, 1961). Indeed, military-sponsored research often took Cold War aims as its own—be it for financial or patriotic reasons—but scientists also tried to maintain their professional autonomy. Still, dependence on military funds and the omnipresence of Cold War paranoia have to be highlighted as constraints on policy discourse production.

Emphasizing these constraints is especially crucial in the field of nuclear strategy, which, due to the dominance of the nuclear revolution thesis in historical accounts, is often depicted as a field of ideational vacuum where scientific ideas could reign unimpeded. This narrative, especially with the RAND Corporation, almost by definition underplays the presence of constraints, and exaggerates the extent of analytical freedom when assessing matters of military *policy*. Military policy namely had its own separate macro discourse that,

despite significant overlaps, cannot be conflated with the general academic (and public) discourse on deterrence. Since defense rationalists explicitly sought to influence military *policy*, in terms of assessing expert-audience relations and ideational influence, such constraints are pivotal.

Despite having some reservations about involving civilians, the newly formed US Air Force, then solely responsible for nuclear weapons, moved especially quickly to secure the needed scientific capital. General Henry ‘Hap’ Arnold, an advocate of technological research and development, was the leading figure in preserving the wartime framework of military-civilian cooperation. Weary of the implications of the atomic age, he believed that only a thorough understanding of the forces shaping the nuclear age, and the policies that result from these understanding can prevent the destruction of the United States (Lemmer, 1963, pp. 49–50). Armed with positive experience from WWII, he saw science as one of the sources of such policies. Worried about the postwar demobilization’s potential negative effect on military-scientific cooperation, he wrote:

I believe the security of the United States of America will continue to rest in part in development instituted by our educational and professional scientists. I am anxious that the Air Force’s post war and next war research and development be placed on a sound and continuing basis. (Quoted in Kaplan, 1983, p. 56)

He asked his chief scientific adviser, Theodor von Karman to look into the possibilities of a postwar continuation of this framework. The resulting study, “Toward New Horizons,” (von Kármán, 1944) suggested that the Air Staff must be “advised continuously on the progress of scientific research and development in the view of the potentialities of new discoveries and improvements in aerial warfare” with the help of advisory groups “such as those which

successfully assisted in the command and staff work in the field during the war” (quoted in Kaplan, 1983, p. 56).

This report essentially laid the blueprints for the Air Force’s Project RAND, an independent research institute aimed at long term research and development that maintained “a permanent interest (...) in problems of the Air Forces” (The RAND Corporation, 1996). Throughout the Cold War, RAND became the central hub for defense rationalists, attracting experts from academia and offering them direct policy-access to nuclear strategy. But before moving onto RAND’s special set of characteristics and its role in the inter-penetration of the scientific and the political, I will discuss the bureaucratic framework of American nuclear strategy planning in detail.

4.2. Nuclear strategy-making and interservice rivalries

Following a lengthy and costly world war, Congress and the Truman administration wanted to dismantle the military machinery. Budget ceilings for the military were drastically lowered, forcing the services to reorganize, but also put them in direct conflict with each other. The Air Force, created by the 1947 National Security Act⁸⁹, was keen on establishing a leading role in postwar military efforts: it pioneered in developing its own institutions for scientific advice and tried to seize control over the US nuclear arsenal.⁹⁰ Both were partly motivated by bureaucratic considerations: with Truman’s budget cuts, the A-bomb seemed to present an economically viable alternative to large conventional forces. Put simply, “the A-bombs were where the money was” (Kaplan, 1983, p. 233). In such an environment of scarce resources,

⁸⁹ The 1947 National Security Act tried to meet the military’s needs for keeping the US’ superpower position. It replaced the former Department of the Navy and War Department with the cabinet level Department of Defense, incorporating all military branches. It also created the National Security Council (NSC), the CIA and the Air Force (formerly the Army Air Force).

⁹⁰ Since primitive atomic weapons were to be delivered by planes, the Air Force enjoyed an initial advantage over the other services in constructing nuclear strategy.

military organizations needed to rely on all their assets to secure the budget they wanted. Among these assets, research and development capabilities could provide leverage over other branches due to the aforementioned “cult of experts.

In his influential article “The Origins of Overkill”, David Alan Rosenberg (1983) identifies three separate levels of government on which nuclear strategy was developed. On the first level the National Security Council (NSC), chaired by the President, defined national security objectives and issued policy guidance for the use of nuclear weapons. Though the institutional structures were the same, the views and policies of President Truman and President Eisenhower on nuclear weapons were strikingly different, affecting the actual involvement of the NSC in setting what US nuclear strategy should look like. On the second level military planners tried to translate high policy guidance into actual strategic concepts and plans. As in all military matters, the Joint Chiefs of Staff (JCS) produced strategic plans on nuclear issues on a near-annual basis from 1948 onward. On the final, third level JCS guidance was translated into target lists and operational plans. In the mid-1950s, the target list was prepared by the Air Force Directorate of Intelligence’s Air Intelligence Production Division (later Air Target Division), while the Strategic Air Command had primary responsibility in operational planning. At this level, nuclear strategy became a question of practical problem solving.

Apart from the three governmental levels, Rosenberg identifies three external dynamics that had a bearing on nuclear strategy (Rosenberg, 1983a, p. 10): technological change, the works of strategists, and most significantly, intelligence estimates. Technological change presented new dilemmas but also new options to existing strategies, while also setting limits on application. For example an increase in weapons accuracy facilitated careful target

selection, while an improvement in Soviet defenses necessitated the reevaluation of the possibilities of an American first (pre-emptive) strike. Intelligence estimates by the CIA and the Air Force were of course crucial in target selection and also in monitoring Soviet strategies and tactics.

Curiously, Rosenberg's analysis of the role of defense rationalists differs from that of most authors of the geniuses literature.⁹¹ He argues that although the theories of strategists like Bernard Brodie, Albert Wohlstetter or even Herman Kahn were important in shaping public perceptions⁹² and occasionally influenced policymakers or strategic planners, they had little relevance for operative planners in the 1945-1960 period (Rosenberg, 1983a, p. 11). For Rosenberg, nuclear strategy planning was more of a bureaucratic problem characterized by interservice tensions and parochial interests. In this framework, what one thought about nuclear strategy depended on where the person was sitting (cf. Allison, 1972; Preston & 't Hart, 1999). In turn, for an analysis relying on contextual suasion, the defense rationalist role Rosenberg depicts does not contradict its definition of ideational influence. It merely highlights how policy adoption does not necessarily represent the goal of successful expert advice, but more so the adoption of expert policy beliefs. Through their influence on the deterrence discourse—and the resulting availability of their ideas—defense rationalists count as shapers of nuclear policy-making from the interpretivists/discursive institutionalist point of view.

The initial years of nuclear strategy planning were characterized by experimentation. Faced with the previously discussed uncertainty of nuclear warfare, the military tried to rely on lessons drawn from WWII, so-called timeless tenets of war, and on the initial reactions of

⁹¹ E.g. Herken, 1987; Hounshell, 1997; Kaplan, 1983; May, 1998.

⁹² Kahn's (1960) "On Thermonuclear War" for instance became a bestseller.

the government to nuclear weapons. Presidential attitudes to nuclear strategy varied across and even within administrations, often making the military's job difficult. President Truman for instance did not want to get involved in nuclear policies as he regarded the A-bomb as a weapon of terror. Securing presidential control over atomic weapons, he left his armed forces without any clear policy guidance that together with the high levels of secrecy made strategy planning difficult.

With timeless tenets of war and lessons drawn from WWII, the situation was no less ambiguous: most of these classical tenets seemed irrelevant in the nuclear era and it was not at all settled which WWII lessons should be drawn upon. As a result, initial strategies mirrored the bombing campaigns of the war and envisioned a massive aerial attack that only partially relied on the then still small nuclear stockpile. (This approach also incorporated an implicit denial of a policy vacuum in favor of doctrinal continuity.) Similarly to WWII, a potential WWIII was thought to be a lengthy conflict involving all of the nation's resources. Therefore, target lists included industrial centers (i.e. cities) and the Russian transportation system in order to destroy the enemy's ability to wage a war (Kaplan, 1983, Chapter 4; May, 1998, Chapters 3–4; Rosenberg, 1983a, p. 12). Since studies showed that existing stockpiles would not be sufficient to stop the Soviet war effort, an increase in the stockpiles but also in the number of targets was envisioned.

4.2.1. Air Force primacy

The Air Force started World War II as a fledgling subservice of the US Army and finished it as the world strongest aerial force with control over the atomic bomb. In 1946, the Air Force became finally independent and the Strategic Air Command was founded to take control of nuclear policies. In the immediate postwar period the Air Force was practically the only

service that could get the budget it wanted, in spite of the cutbacks; it was also able to secure and maintain a unique position in the nuclear strategy planning structure.

While a neglected branch of the Air Force from 1946 to 1948, the Strategic Air Command became the Air Force's main asset with Truman's budget cuts, and nuclear strategy planning practically became SAC business as the Command was given the primary responsibility in operational planning. SAC's position was also unique in institutional terms: it was a separate major Air Force administrative command under the Air Force Chief of Staff, but was also at the same time a specified command within the JCS national unified and special command system. SAC could therefore prepare its own annual war plan for JCS approval, while the non-SAC controlled nuclear arsenal—the Army's nuclear forces (e.g. nuclear artillery), the Navy's nuclear forces, and the Air Force's tactical nuclear forces—were all under the command of JCS mixed-service unified commanders in Europe, the Pacific and the Atlantic.

SAC's positions were also strengthened by its personnel, mainly by its charismatic leader, General Curtis E. LeMay. LeMay participated in the bombing campaign against Tokyo and was what one could call a classic WWII Air Force commander. Receiving command of SAC, he initiated a quick reorganization, stressed training and introduced a competitive reward system to make SAC an elite military unit in control of innovative technology. This cutting-edge force mentality, as I will explain later in this chapter, also included access to expert advice, including that of defense rationalists. Fearing control from the Navy and the Joint Chiefs, LeMay always tried to project confidence and power. Due to such favorable conditions, SAC came close to seizing control over all nuclear weapons through the 1960

Single Integrated Operational Plan. However, the Air Force's/SAC's dominance was repeatedly challenged by its arch rival, the US Navy.

4.2.2. Bombers vs. aircraft carriers

The rivalry between the Air Force and the Navy originated in the postwar debate about which service was to dominate strategy in case of another war. Apart from the pride of the officers, this was a matter of bureaucratic standing: the service that is taken as the major offensive force of the military would be in a privileged position when it came to budget negotiations.⁹³

For veterans of the strategic bombing campaigns it was obvious that the Air Force had proven to be a reliable force and a major contribution to the military effort. Its bombers not only brought down the German economy, but also conducted the nuclear attacks on Japan. To these officers, the next war was bound to be fought with large scale aerial campaigns. Due to its outstanding performance under similar conditions, the Air Force was therefore to be provided with control over nuclear weapons and nuclear strategic planning. But the Navy had similar arguments for its carrier fleet: after the victory against the Japanese Imperial Navy at Midway, it became clear to most naval officers that aircraft carriers would provide the main striking force of maritime combat in the future.⁹⁴ Confident in arguments for the carrier, the Navy initiated its “supercarrier” program which aimed at developing newer and bigger carriers (see Toppan, 1996).

In 1949, a desperate dispute ensued between the Navy, Congress and the Air Force—an event often referred to as “The Revolt of the Admirals” (Barlow, 1994; A. L. Lewis,

⁹³ For a detailed analysis of postwar budget debates, see Converse III, 2012b.

⁹⁴ Due to their mobility, carriers were thought to be more capable of delivering nuclear weapons than land-based Air Force bombers, which at the time still had problems dealing with long range missions. This argument was often emphasized during the 1950s when SAC's vulnerability became a central question for strategist.

1998)—marking the beginning of a long rivalry. When the budget cut forced the Navy into canceling the supercarrier program, the entire top echelon of naval officers defied the rules of subordination and publicly spoke out against the emphasis placed on the atomic bomb and the Air Force’s bomber program. The argument at that time did not seem far-fetched as the number of available nuclear weapons was rather low, so they were of low strategic value. In addition, the Navy also attacked the Air Force’s approach to strategic bombing, calling it the “ruthless and barbaric (...) random mass slaughter of men, women and children” that was “militarily unsound (...) morally wrong (...) [and] contrary to our fundamental ideals” (quoted in Kaplan, 1983, p. 232). Though the Air Force won this debate, the bitter rivalry between the two services remained tense and surfaced at different points during the 1949-1963 period, culminating in the debate on the Navy’s Polaris submarine program in 1957-60.

Interservice rivalries were of course not uncommon, nor were they an American phenomenon (see esp. Walt, 1987, pp. 148–149). What makes them important for the topic of this dissertation are the ways in which they presented dilemmas for the Air Force, thereby shaping the policy environment for defense rationalists. These clashes namely interfered with strategy and influenced those who were to make strategy on supposedly apolitical grounds (i.e. Air Force planners). Naturally, military officers were seldom objective professionals as they continuously defended of their service’s perceived interests, even if these interests were hardly justifiable on the grounds of strategy.

The contradictory and hypocritical rhetoric this dynamic can spur is probably best exemplified by the Navy’s attitudes towards nuclear weapons. Following the initial discursive strategy invoking moral disgust against Air Force doctrine, once the Navy developed its own nuclear forces from 1951 onward, it began supporting Eisenhower’s massive retaliation and

changed the discursive strategy accordingly, embracing the sanitizing discourse of the administration that treated nuclear weapons as conventional weapons (Tannenwald, 2005a, pp. 23–26).⁹⁵ A 1951 message from Admiral Lynde McCormick, Acting Chief of Naval Operations to the Joint Chiefs of Staff, perfectly exemplifies both conventionalization and hypocrisy:

It is in our interest to convince the world at large that the use of atomic weapons is no less humane than the employment of an equivalent weight of so-called conventional weapons. The destruction of certain targets is essential to the successful completion of a war with the USSR. The pros and cons of the means to accomplish their destruction [are] *purely academic*.⁹⁶

In Vannevar Bush's postwar science policy network, scientific groups involved in basic research were to be shielded from such parochial influences. Yet as a *protégé* of the Air Force, RAND and its defense rationalists were dragged into the middle of this rivalry, but also offering entry points into a military-dominated policy discourse through the dilemmas it created.

4.3. The RAND Corporation, home of Dr. Strangelove

The Air force's Project RAND was created as a research institution with special interest in Air Force matters—an affiliation which supplied continuous long-term research and development demand. Immediately after the war, General Arnold had RAND established in 1946 under the codename Project RAND (short for Research ANd Development), as an affiliate of Douglas Aircraft—and affiliation that only lasted for two years. Eventually, in 1948, the independent

⁹⁵ Though also arguing for massive retaliation, the Navy distinguished itself from the Air force by emphasizing the tactical applications of its arsenal, as opposed to the strategic bombing strategies of the Air Force that they deemed rigidly preplanned (Kaplan, 1983, p. 233).

⁹⁶ Letter from Admiral L. D. McCormick, Acting Chief of Naval Operations to Joint Chiefs of Staff Subject: US Military Position on the Employment of Atomic Weapons. 24 July 1951, National Security Archives, Fred Kaplan Papers, Box 1, Folder "Use of Nuclear Weapons", emphasis added.

RAND Corporation was created (operating as Project RAND). Mirroring Arnold's vision, RAND's first mission statement defined the organization's aim as the "study and research on the broad subject of intercontinental warfare, other than surface, with the object of recommending to the Army Air Forces preferred techniques and instrumentalities for the purpose" (quoted in May, 1998, p. 18). The obvious vagueness of such a statement provided Project RAND with a degree of freedom to decide what long term research should be about, while also clearly linking research efforts to the Air Force. Air Force Regulation 20-9 elaborates the original mission statement in greater detail:

Project RAND is a continuing program to assist the Air Force in improving its efficiency and effectiveness by furnishing information and independent, objective advice derived from selected research and analysis of airpower problems of interest to the Air Force. To this end and in light of rapid advances in technology and expected changes in the national and international situation, studies, analyses, syntheses, and examinations in research, development, intelligence, operational, logistical, personnel, fiscal, electronic, and other appropriate areas are made to determine preferred methods, techniques, and instrumentalities that may assist in the formulation and implementation of Air Force plans, policies, and programs. (Quoted in Specht, 1960, p. 825)

But what exactly was RAND as a research institute to do? According to its second annual report, RAND felt "obligated, within its resources, to make a major scientific attack on the whole theory of warfare, in the broadest sense of the words" (quoted in May, 1998, p. 23). This meant nothing less than a scientific challenge to the traditional practical wisdom of military officers, an attempt to build a "science of warfare" (Hounshell, 1997, p. 244), later to be equated with a RAND-developed new methodology, systems analysis.

RAND's institutional structure greatly facilitated wide-ranging inquiry without many preset guidelines from the patron. Individual analysts were responsible for their own projects

and could come up with their own ideas;⁹⁷ while they could work together with colleagues from other departments. This structure was a conscious managerial decision to foster interdisciplinarity among researchers which in turn was seen as essential for RAND's ambitious mission (Rocco, 2008). Analysts quickly endorsed this approach as it rid them from bureaucratic boundaries that they thought hampered creativity. This setup also implied that individual analysts could reject Air Force-issued inquiries, but management rarely did so.

RAND's research output—including key ideas of defense rationalism—had to be communicated to Air Force officers in terms that made sense to a group whose views Randites often challenged. When it came to genres, RAND conformed to Air Force standards: the findings of studies were disseminated via short papers, briefings and summary reports, distributed to appropriate Air force functionaries. The tone of dissemination was often not formal, and RAND consistently avoided the use of the term “recommendation”. Through these materials, RAND was seeking to develop a trusting clientele by producing research that was policy relevant; was the result of thorough scientific analysis; and incorporated a plurality of expertise to enhance the recipient's information set and justify arguments (Rocco, 2008, p. 12). This set of characteristics alone, however, does not imply persuasiveness.

Dissemination was further facilitated by a homogenous language used among strategists. Given the wide-ranging nature of defense rationalist research, the divergent background of individual Randites and the documented professional enmity between RAND's social science and “hard science” departments, the argument that produced ideas share a common language seems peculiar at first. Nevertheless, RAND's research ethos and flexible organization enabled a quasi-homogeneous language to develop that could then be propagated outside the institution. Strategists would often spend time together in a casual work

⁹⁷ For more on how RAND projects were launched see e.g. Specht, 1960.

environment, brainstorming ideas and research problems. Projects were commonly cross-departmental and were conducted on an invitational basis. Instead of assigning a closed group to a particular problem that would then develop a final research product, drafts of research ideas were circulated among colleagues of various backgrounds who would then offer criticism or even join the research team. Since Randites could publish openly, and were constantly moving between academia, policy-making and policy research, the RAND approach could easily be shared with a widening audience.

The Air Force was consciously expecting *scientific* input into policy problems of immediate interest from RAND. This attitude, as this chapter has explained, was on the one hand motivated by WWII experience, and on the other hand the interservice rivalry wherein *expert* advice was seen as a good justification for policy positions. This dissertation argues that the way these characteristics were developed, applied, and communicated/translated to the Air Force, involved a gradual—yet not necessarily linear—learning process. Put simply: convincing the Air Force that RAND was indeed 1) a good investment, and 2) the source of advice that was policy relevant and/or strategically usable in policy debates involved various aspects of persuasion, and was facilitated by dilemmas the patron faced, as well as conscious decisions within the think tank. This process eventually helped to establish RAND's recommendations as a sort of “sound policy advice”, which enabled the lasting institutionalization and naturalization of defense rationalism.

4.4. Two traditions

Two distinct traditions were at play when defense rationalists engaged with nuclear strategy: that of the Air Force, and that of defense analysts. Characteristics of these traditions help us

understand how actors make their decisions, how they engage with dilemmas, but also on what basis they may attempt persuasion by establishing links across different traditions.

4.4.1. “Peace through strength – Victory through devastation”⁹⁸

The Air Force’s creation coincided with the beginning of the Cold War and the atomic age, and the service sought to define its own role in national defense within this context. The organizational tradition Air Force commanders could draw upon offered interpretations of what the Cold War was, what strategy entailed, who practiced it, how it was made, which policy options were possible, and what role civilians and scientists could play in strategy-making. As its conceptual link, the tradition incorporated common Clausewitzian guidelines, but also had its own specific conceptual roots in the theoretical work of pioneers of aviation such as Giulio Douhet or Billy Mitchell, most importantly the proposition that strategic air power is both the symbol and the embodiment of the American way of conducting (nuclear) war (Gray, 1981, p. 602).

The *raison d’être* of a strategic air force originated in Douhet’s *Command of the Air* (2009) where he argued that the age of aviation rewrote the rules of warfare, rendering the enemy hinterland vulnerable to attack even if his land and naval forces are intact.⁹⁹ All strategic concepts developed by the US Air Force reflected this “one elemental and irrefutable truth”, that “the most influential element in international conflict is the application, or threat of application, of overwhelming destructive power. The aerospace is, by its nature, the

⁹⁸ Popular slogan of the US Strategic Air Command (SAC).

⁹⁹ For a contemporary analysis, see Bernard Brodie’s (1955) “Some notes on the evolution of the Air Doctrine”.

dominant medium for such application.”¹⁰⁰ Theory was married to experience in World War II: as mentioned, the Air Force saw the strategic bombing of German and Japanese cities as a crucial contribution to Allied victory. Thus the doctrine was beyond doubt, “any weakness and fault [lay] in the manner in which [it had] been applied”.¹⁰¹

The belief in the effectiveness of strategic bombing in crippling the enemy’s economy and his “will to fight” was one of the major rationales behind the creation of an independent Air Force in the first place. This air of exceptionality not only helped the Air Force in securing a leading role in the postwar national security establishment as the service capable of delivering the A-bomb, but also defined its understanding of general (nuclear) war and the role of air forces in it. Strategic doctrine assumed that World War III would resemble the previous conflict, an all-out-war that would be primarily fought through massive bombing campaigns targeting enemy cities. The aforementioned nuclear revolution thesis, i.e. the argument that atomic weapons have rendered war obsolete and deterrence essential, did not enter Air Force thinking until well into the mid-1950s. As its first Chief of Staff, General Hoyt Vandenberg put it: the bomb did not “alter our basic concept of aerial warfare. It has given us an additional weapon” (Lemmer, 1963, p. 32). Offense and defense were linked in the concept of a dominant force: offense would target the enemy war-making capacity (“countervalue”), while defense would mean the destruction of the Soviet military (“counterforce”). This destruction would be carried out in a so-called “Sunday Punch”, a massive retaliatory attack that would hit Soviet cities, military installations and advancing

¹⁰⁰ *The Relationship Between Past and Present Strategic and Tactical Concepts*. Prepared by the Doctrine Division of the Research Studies Institute, Air University. June 1961. Library of Congress, Manuscript Division, Curtis E. LeMay Papers, Box 185.

¹⁰¹ Ibid.

troops alike.¹⁰² This strategy was presented as the operational translation of containment and massive retaliation, and the core of the Air Force's approach to fighting a nuclear war.¹⁰³ The requirements of the plan defined Air Force interests by creating a massive and expanding need for more and better weapons in order to maintain numerical and technological superiority.

As I have already noted, the Air Force's reliance on bombers and strategic bombing as its doctrine put it in conflict with the Navy and its carrier force. General Thomas White, the Air Force Vice Chief of Staff (1953-1957), highlighted the difference between the two positions:

USAF capability for global operations, together with its far flung base complexes, makes our force one of the major elements of foreign policy. In my opinion, the Air Force has largely replaced the NAVY as an arm for purposes of 'making shows of force' or 'showing the flag.' I do not know what the Navy's method is, but I feel sure that a fleet maneuver could not take place in international waters, involving port visits at least, without close coordination with the State Department.¹⁰⁴

The Air Force's posture and doctrine were seen as the translation of foreign policy for the Cold War, whereas the Navy's strategies were seen as obsolete—something from a previous era. This concept of a “new age of bombers” was conflated with a limited understanding of the nuclear revolution thesis that justified the continued relevance of pre-nuclear strategies. Consequently, WWII practices proved to be extremely resilient despite advancements in deterrence theory, technological innovations such as ballistic missiles, or even changes in the

¹⁰² Sunday Punch involved three sets of targets: BRAVO (military installations), ROMEO (troop concentrations) and DELTA (industry i.e. urban centers) with city targeting as the main focus.

¹⁰³ Interestingly, elements of this aspect of the Air Force tradition still remain. Frequent calls for “bombing Afghanistan back to the stone age” in 2001 for instance can be traced back to a remark by General LeMay with reference to the bombing of North Vietnam.

¹⁰⁴ Memorandum for DCS/Operations by Thomas D. White General, US Air Force Vice Chief of Staff 9 March 1956. Library of Congress, Manuscript Division. Nathan F. Twining Papers, Box 88, Folder: 1956 Organization.

Cold War military-political status quo. These sticky beliefs were communicated through a discursive strategy that was consciously tailored¹⁰⁵ to justify them against the Navy.

As the embodiment of strategic nuclear warfare, the Strategic Air Command (SAC) stood out from the Air Force's institutional structure. Charged with carrying out the strategic bombing campaign, SAC spearheaded the postwar national defense structure, and it was commonly held that its infamous and charismatic commander, General Curtis E. LeMay, had “without any qualification, the most vital military mission of any man in the world.”¹⁰⁶ Since SAC was the service capable of delivering atomic weapons, it could muster a narrative that depicted the Command as “the nation's and the free world's main deterrent to war.”¹⁰⁷ This narrative could be turned against the US Navy by arguing that weakening SAC—i.e. not giving SAC the weapons it considers necessary—would seriously jeopardize the security of the US and its allies. Whereas other services were bound by petty parochial interests, the belief held, the Air Force truly catered for national security.

The Air Force's officers, and SAC's in particular, fancied themselves as members of a technologically cutting-edge, precise, highly trained elite force¹⁰⁸ that could act as a deterrent force-in-being, but if deterrence failed, could also become a “primary instrument for winning the war.”¹⁰⁹ Reliance on scientific advice both in applied and basic research was also a crucial element in the Air Force's organizational tradition. Long range manned bombers, nuclear bombs and ballistic missiles were all regarded as engineering marvels, and veteran

¹⁰⁵ To the previous remark, General White added: “I think it behooves the Air Force to find out what Navy procedures are and, having done so, to evolve appropriate Air Force procedures in this respect.”

¹⁰⁶ Thomas D. White's letter to LeMay 21 January 1952. Library of Congress, Manuscript Division, Curtis E. LeMay Papers, Box 61: Personal Correspondence.

¹⁰⁷ *History of the Strategic Air Command; History Study 73A: SAC Targeting Concepts*, n.d.[circa 1959], Top Secret Historical Division, Office of Information, Headquarters Strategic Air Command, Source: <http://www.gwu.edu/~nsarchiv/nukevault/ebb336/index.htm>

¹⁰⁸ Frequently depicted by a medical metaphor of a surgeon performing a delicate operation.

¹⁰⁹ *History of the Strategic Air Command; History Study 73A: SAC Targeting Concepts*.

officers of WWII were aware of the scientific community's contribution to strategy development, most notably in designing the German bombing campaign. As a high ranking Air Force officer put it:

we are engaged today in a race for technological supremacy. To meet this crucial challenge, we must seek the counsel and advice of our best engineers, technicians and scientists (...) To turn our back upon these qualified individuals could well jeopardize our national defense program.¹¹⁰

These scientists naturally included defense rationalists at the RAND Corporation.

4.4.2. The science of warfare

When plotting doomsday scenarios of nuclear war at institutions like RAND, defense rationalist relied on a scientific tradition that often clashed with that of the military. Coming from academia, analysts brought with them a shared episteme that included a belief in the superiority of the scientific method over the often intuitive, experience-based approach of the Air Force. Defense rationalism's mode of reasoning, i.e. the rules through which their representation of policy problems is made possible (Weldes, 1998, p. 223), claimed exclusive rights to rationality and objectivity. Arguing from the position of a nuclear revolution, defense rationalists questioned the relevance of historical experience, consequently the core legitimizing element of the military tradition: the claim that "this" is the way things have been done since time immemorial. Instead of building on historical lessons, defense rationalism employed deductive reasoning for developing abstract theories of *nuclear* war. It imagined possible and impossible scenarios, yet often equated the possible with the theoretically permissible, rendering any kind of outside criticism mute. Moreover, despite frequent claims to the authority of the scientific method, imagined scenarios were subject to manipulation by

¹¹⁰ Arno H. Luehman, Major General USAF, Director of Information's letter to a Mr John Finney, explaining the working of the SAB, 8 Dec 1961. Library of Congress, Manuscript Division, Curtis E. LeMay Papers. Box 127, Folder: USAF Chief of Staff's Scientific Advisory Board (SAB) and Chief Scientist.

the theorist using an exclusive language that spurred the oft-quoted nuclear priesthood metaphor (Hilgartner et al., 1982).¹¹¹

Nuclear strategy for defense rationalism is “conceptual strategy”, with “an ontology that confuses metaphorical concepts with real things” (Hirschbein, 2005, p. 2). Defense rationalism thus is essentially metaphorical: its widespread use of metaphors—think of “games” in game theory—and analogies has enabled rationalists to convey meaning to a wider audience by drawing on shared background ideational abilities and simplifying formal arguments into more readily digestible metaphorical narratives. As I discussed in section 3.3, metaphors are not only cognitive maps that construct what is happening, they also serve teleological and normative functions: they indicate why an event is occurring and what should be done, and are therefore performative (Fierke, 1998). This is how the plausibility, commonsensibility and legitimacy of these abstract interpretations of the Cold War reality could be established. Defense rationalism is not about mathematical analysis of technical problems, but about “world-making” (Ghamari-Tabrizi, 2000, p. 11): persuasive narratives and storytelling conveyed in a technological, exclusive language the mastery of which elevates the audience in the elite group of defense intellectuals (Cohn, 1987).

Defense rationalists firmly believed that strategy was amenable to scientific treatment “in spite of the common belief that (...) ‘experience’ has been a better guide than ‘theory’ in [military strategy making]” (Kahn & Mann, 1956, p. 2). They felt “obligated, within [their] resources, to make a major scientific attack on the whole theory of warfare, in the broadest sense of the words” (May, 1998, p. 23). Experience with non-atomic weapons in their view hindered adaptation to a dynamic and novel threat environment, so defense

¹¹¹ Curiously, despite the open rejection of historical experience, defense rationalism heavily relied on historical counterfactuals, the most important one being the continuing justification of deterrence as a working strategy due to the lack of an actual nuclear war and/or a Soviet invasion of Western Europe.

rationalists instead offered an “objective” scientific approach that was not bound by irrelevant historical bias. Starting with Randites, defense rationalists consciously tried to turn this approach into a coherent philosophy they termed “the science of warfare”, often equated with its dominant methods: systems analysis and rational choice/game theory.

Game theory in particular promised to provide means to arrive to sound, scientific strategic decisions and presented its results in the rigorous, standardized, and multidisciplinary language of mathematics. The use of mathematics helped analysts to ensure logical consistency, especially in complex systems where ordinary language could lead to logical errors or vagueness (Walt, 1999). Due to the scientific consensus on the authority of mathematical arguments, defense rationalists could claim that their methods and findings are both “value-free”. Therefore, for strategists, the benefit of “scientific objectivity” was not only derived from elaborate quantification, but also from an explicit professional indifference—researchers had no personal commitments to the problems (most of them were not soldiers), and methods that required them to be value-neutral. The first textbook on operations research (the theoretical ancestor systems analysis) by Philip M. Morse and George E. Kimball (1951) summarized the measures of scientificity:

It should be apparent by now that the operations research worker does not need to be a specialist in any particular branch of science. He does, however, need to be a person with considerable experience in research of a scientific nature. (...) impersonal curiosity concerning new subjects that is the very essence of research ability. The research scientist is trained to reject unsupported statements and has come to have the habit of desiring to rest his decisions on some quantitative basis, even if the basis is only a rough estimate. (Morse & Kimball, 1951, p. 10)

Not only did this approach appear scientific compared to the historical, intuitive—and often quite crude—approach of military professionals, it also seemed very versatile. The same

approach could be used in practically all subfields of nuclear warfare, even outside of the field of strategy.¹¹²

The other crucial method, systems analysis grew out of wartime operations research techniques and dealt with questions such as “what kind of bombing strategy should be used to achieve the destruction of a given set of targets?” This fundamentally interdisciplinary, complex, formal approach to policy problems came with a near-insatiable appetite for data, a strong need for auxiliary research in game theory and programming, as well as an often debilitating level of uncertainty. Not all elements of a system could be analyzed, so the analysts needed to simplify, reduce and omit.¹¹³ The success of the study therefore largely depended on asking the *right questions*. As RAND systems analysis Edward Quade put it,

the first thing you do, if you are going to do a systems analysis, is to look at that problem situation and see whether you can *extract the problem out of it*. (...) Usually you start with what’s mainly a mess and try to extract a definite problem out of it (...) You have to *invent* the alternatives, and that means you have to synthesize ideas, put them together to find something that’s going to accomplish your objective.¹¹⁴

Randites were generally free to pursue the problems they were interested in, and could mostly pose their own questions which they then took to the patron. The importance of this freedom is emphasized throughout the literature on RAND’s character—especially since this was unique among contemporary research institutions—and, as I argue, it also acted as a crucial facilitator for discursive influence, most crucially in the sense that it permitted Randites

¹¹² The work of Nobel-laureate economist and RAND strategist Thomas Schelling epitomizes the flexibility of defense rationalist methods: during his career he published numerous studies on diverse topics ranging from nuclear war to urban planning (Robin, 2001; Sent, 2006).

¹¹³ Since the analysis heavily depended on quantification, if a variable could not be quantified, it was often omitted, or used as a “tiebreaker” between equally possible alternatives. As it stood, most of the variables omitted in earlier studies came from issue domains usually associated with the social sciences, for example Kremlin politics or the psychology of nuclear bombing. The failure of the Bombing Study contributed to RAND’s branching out towards social scientists so that such crucial, but not readily quantifiable variables could be factored in the analysis.

¹¹⁴ RAND History Project (ROHP) interview with Edward Quade. Date: February 18, 1988. Interviewer: Martin Collins. Auspices: RAND. Smithsonian Archives, RAND History Project Interviews, Box 9. Emphasis added.

simply to pick the topic of their encounters with the Air Force, or even reframe existing topics. Through systems analysis, defense rationalists could single out questions of strategy that they wished to pose or reframe. Meanwhile the method also presented a toolkit that lent scientific authority to the new frame. Crucially, the guiding questions of a systems analysis were often changed *during* the analysis, which sometimes changed the results as well. This curious aspect of the method could either be seen as a shortcoming—unscientific “guessing work”—or a source of excellent flexibility when navigating the bureaucratic context of policy-making. In essence the question, and consequently the answer, could be changed by a whim without questioning the scientific integrity of the method.

This mode of reasoning can be identified in the defense rationalism construction of group identity vis-à-vis the military, its perceived mission, its methods and the language that was used to convey ideas. The adamant belief in the superiority of scientific arguments was coupled with first-hand experience with working with the military in WWII where many future defense analysts tackled complex problems of strategy and tactics. Aiding the “war effort” was a crucial goal of defense rationalism during the Cold War years as well, and most analysts shared the orthodoxy in thinking that was characteristic of Cold Warriors: the belief that the Soviet Union had purely malevolent intentions, which gave US preparations a constant air of urgency.¹¹⁵ The often simplistic mirror-image setups in basic game theory often reflected this thinking. The Soviets could simply be assigned a set of goals and preferences that were derived from the political orthodoxy. Since, as the popular story behind the prisoner’s dilemma testifies, the aim in these games was “not to get tricked”, game theoretical simulations of the Soviet-American confrontation could always be framed so that

¹¹⁵ Cold War orthodoxy acted as a strong, yet informal constraint on idea production. In essence, even though scientists could challenge military dogmas or policies, they could not challenge political premises underlying American society. Arguing against widely shared intersubjective understandings necessarily translated as a direct attack on institutions that function on the basis of these understandings (see King, 1959; Robin, 2001).

they became games of “how the US could win a nuclear war”—Russian history, leadership or culture did not enter into the analysis. Naturally, this restrictive view of politico-military preferences reinforced worst-case scenario thinking while favoring hawkish attitudes.

Defense rationalists at RAND, taking pride in their perceived intellectual independence, did not feel they needed to cater to the Air Force’s needs with good reason. As General LeMay famously remarked, “no one in the Air Force anywhere is to tell RAND what to do or what not to do. We want them to figure it out.”¹¹⁶ Yet RAND’s funding still came from the Air Force, and its officers presented a primary audience for persuasion and a source of up-to-date classified information. Thus, Randites needed to take into account the patron’s perceived interests and tradition. However, systems studies often recommended changes “not only in how the policy maker carries out his activity but in the objectives themselves,” so, from the scientific point of view “it would [have been] self-defeating to accept the customer’s or sponsor’s view of what the problem [was].”¹¹⁷ Hence for defense rationalists, to persuade the Air Force meant to “educate” the Air Force: Randites sought not only to disseminate their findings in official reports and high level briefings, but also an appreciation of the science of warfare through seminars. The emphasis was on appreciation, however, not on a thorough understanding, since systems analysis is “a form of art, not science, and art cannot be taught”.¹¹⁸ “Educating” the patron thus involved metaphors and analogies as much as tables and statistics. These seminars, along with briefing tours, could extend the links between analyst and officer, and could convey the specific *and* sexy “technostrategic” (Cohn, 1987) language that offered a sense of belonging to the nuclear cabal.

¹¹⁶ ROHP interview with Frank Collbohm.

¹¹⁷ ROHP interview with Edward Quade.

¹¹⁸ Ibid.

The professional discourse on nuclear war that defense rationalists entered and shaped was characterized by abstraction and removal—completely devoid of references to the horrors of a nuclear Armageddon depicted in popular fiction. The language used was riddled with abstraction and euphemisms, such as “collateral damage” (civilian casualties), “countervalue targeting” (nuclear bombardment of enemy cities), “limited war” (the sequential and/or restricted use of large-yield nuclear weapons), “terminal kill ratio” (the probability of shooting down enemy bombers and killing their crew), “clean bombs” (bombs detonated at high altitudes to minimize fallout), “hostilities” (all-out war), or “bonus damage” (civilians killed during attacks on military installations).¹¹⁹ These abstractions enabled defense rationalists to carry out their work without having to ponder the horrors of war. Even when talking about the mass genocide that is nuclear war, analysts projected the aura of the rational numbers’ man. As notorious nuclear strategist Herman Kahn analyzed birth defects that would befall survivors of nuclear war in his 1960 book *On Thermonuclear War*, he emphasized the average American’s inability to see war in his terms. Completely understating radiation effects, he so lectured his readers:

While it must be conceded that there are great uncertainties, it should be pointed out that man has been subject to natural radiation for millions of years, and whatever the effects these new peacetime [X-rays] and potential wartime exposures will be, they are not different in kind from the old—just more intense. (Kahn, 1960, p. 48)

As I noted earlier, this language that Carol Cohn (1987) aptly coined “technostrategic” was also very exclusive: it relied heavily on technological jargon, such as acronyms. Acronyms not only have a utilitarian purpose—i.e. simplifying speech—but are also savvy and technological abstractions. As Cohn demonstrates, abstract language was used to describe an abstraction: nuclear war. Abstraction was indeed invited by method and object of analysis

¹¹⁹ For a compendium of such terms, see Green, 1986.

alike: analysts could not possibly rely on real life experience when describing a non-event. Kahn once famously retorted to an Air Force official questioning his conclusions on the grounds of his military experience: “How many thermonuclear wars have you fought recently?” As a consequence, since the whole reality of nuclear war was abstract, arguments were eventually judged by the internal logic of deterrence theory, not by the practical know-how of military officers.

Another crucial characteristic of defense rationalist language is the aforementioned often brilliant use of generative metaphors (cf. Lakoff & Johnson, 1980), including well-known “games”, such as “prisoner’s dilemma”, “chicken” or “ultimatum”. These, contrary to popular belief, were however hardly used by the analysts in their work due to their simplicity. Still, they could be used as illustrations in presentations or publications aimed at a general audience. Along with visual aids, such as graphs, metaphors could reduce complex research into easily digestible elements. Looking at documents and presentation materials circulated among policy makers, the rigid formal reasoning defense rationalists are so proud of is mostly absent: conclusions were presented in a language that was easy to understand even for science laymen. Moreover, since the audience was usually at least aware of the “hard science” backing up all findings (see “educating” audiences), discursive closure around the metaphor gave members of the audience the feeling of hearing *and* understanding something scientific. Though relying on discursive closure—i.e. defining the borders of a problem, thereby excluding alternative interpretations (see Hajer, 1996)—is frequently used by policy experts, their application in the high risks field of nuclear strategy was something fundamentally novel.

Narratives were yet another tool defense rationalists relied on. Not only did they make complex ideas more comprehensible, but also guided research presentation by positioning subjects and structures. A key example is “US vulnerability”, the central narrative in Albert Wohlstetter’s presentation tour all around the Air Force echelon after the completion of the RAND basing study in 1953 (see Ch.6). This series of studies was presented with the weapons themselves as referent objects (cf. Cohn, 1987): it was not the US as a polity that was in mortal danger, but the bases and bombers it maintained for deterrent purposes. Defending these weapons thus became the main policy objective. The use of this particular narrative not only gave Wohlstetter’s recommendations a sense of urgency, but also dehumanized the problem of enemy nuclear strikes by shifting the point of reference onto the weapons.

4.4.3. Clashing traditions

Given the centrality of strategic nuclear bombing to US military policy on the operational level, targeting became the key practice, i.e. the selection of suitable bombing (and later missile) targets within the Soviet Union, given a fixed number of available bombs, planes and aircrews. The targeting debate gradually became one of the central arena for the interservice rivalries, with the division of labor as the central issue for contention. The US Navy argued that carriers provided the mobility and projection capability that early bombers lacked, whereas the Army could launch its bid for the nuclear stockpile arguing that theatre-level nuclear weapons (e.g. nuclear artillery) should be used to halt Russian troop movements. Thus, even though the Air Force controlled the strategic bomber fleet, the service’s preeminence in supervising nuclear strategy was not self-evident, nor were its bids for the

procurement of new and expensive technologies. In order to prevail in these and other interservice debates, the Air Force sought to rely on all of its assets, including the scientists at RAND to legitimate and reproduce its social practices.

Though the Air Force did not actively seek out RAND's advice in specific issues during the initial years of the Cold War, aiding the service in the targeting debate also seemed like a natural point of entry for defense rationalists. For RAND, the Air Force acted as its primary audience, representing both the political (presidential directives and bureaucratic politics among the services) and the administrative (existing doctrines, weapons technology) context. Thus, even though Randites were aware of both presidential politics and technological constraints—with obvious limitations due to secrecy—these factors had to be primarily interpreted through the patron's point of view. If RAND was to have an influence on nuclear policy-making, it needed to persuade the Air Force.

Reconciling the two traditions was not an easy process. Defense rationalists often displayed the kind of elitism that was rooted in their firm belief in the superiority of their methods, whereas the military felt that the legitimacy of its professional expertise was under attack by an outside group. This kind of antagonism led to a number of strange encounters. For example, when RAND was presenting preliminary findings commissioned by SAC in 1950, the commanding general acted as “though we [Randites] were a bunch of Congressmen and he was defending the Air Force.”¹²⁰ In a 1963 article, former Air Force Chief of Staff General Thomas D. White openly voiced his and many of his colleagues' dismay with the “pipe-smoking, tree-full-of-owls type” defense intellectuals (White, 1963). His words exemplified an obvious dissatisfaction with the “meddling” of uninitiated civilians in the

¹²⁰ ROHP interview with Frank Collbohm Date: July 28, 1987. Interviewers: Martin Collins and Joseph Tatarewicz. Auspices: RAND. Smithsonian Archives, RAND History Project Interviews, Box 8.

McNamara Pentagon, but also highlighted a common military attitude towards civilian strategists. For White, the very term “defense intellectual” conveyed “a nice, cozy, unwarlike and non-military feeling, as though modern war could be settled on a chessboard in an ivy-covered Great Hall”. He even criticized defense rationalist language, calling the concepts developed “‘status words’ used by amateurs to impress their listeners”. Antagonism between the two traditions often seemed irreconcilable.

But nuclear strategy has always been a curious policy field. Even though defense rationalists and airmen legitimized their own expertise on different grounds, due to the lack of actual expertise with *nuclear* war, defense rationalists could claim experience purely based on laboratory simulations, while Air Force officials continued to invoke their experience with conventional bombing. Yet the common grammar needed to be learnt. Three elements were key to the reconciliation of the two traditions, and the institutionalization of defense rationalist thought. First, defense rationalists needed to demonstrate that the new methods were better in that they produced better policies. Second, they needed to show that these same methods would give an edge over competitors through the scientific authority they convey. Finally, they needed to explain that the new method was not antithetical to existing military traditions. Again, this had to be an exercise of translation: often very technical basic research had to be translated into a language that the military could understand through simplification, explanation and education.

In the hope that this chapter has sufficiently equipped the reader with a basic understanding of the policy context of nuclear strategy-making, including presidential policies, policy structures, and the two key organizations with their competing traditions, I now move onto the

first case study entitled “Bombers” in the next chapter. Chapter 5 investigates one of RAND’s early systems analyses that was completed in 1950 and was aimed at devising a complex bombing system that could be used in an aerial campaign against the Soviet Union. The study entitled “Strategic Bombing Systems Analysis” was a crucial first test for RAND, eager to sway its patron with the newly devised “science of warfare”, commonly equated with its main method, systems analysis. Beyond recommending a “best bomber” for the US Air Force, the study also suggested a system of social arrangements—from procurement, research and development to targeting practices—for fighting a total war with the Soviets. As such, the study can and should be interpreted as RAND’s breaking out of the confinement of engineering and applied physics research into strategy, a field previously thought to be the exclusive domain of the military. However, results delivered by the research team ran completely counter to Air Force doctrine and the study was quickly scrapped. Due to its peculiar history and role in RAND’s institutional development, the study will be presented here as an instance of failed discursive influence.

Chapter 5: “Bombers”¹²¹

Nuclear strategy presented challenges about which history could teach us only a limited amount, and even that had to be innovatively adapted and expanded as we went along.

/James Digby, RAND analyst¹²²

5.1. Context: Sensemaking and legitimacy in RAND-Air Force relations in the postwar years

For the United States the immediate postwar years were characterized by a difficult transition from total war to peace. President Truman, eager to guide his country back to normalcy as quickly as possible, envisioned huge cutbacks to a bloated military. Though Truman was appalled by the destructiveness of the “terror weapon”, atomic monopoly seemed to offer a cheap solution to the issue of balancing a postwar military budget and the need of preserving peace among the former allies.

Translating postwar politics into (nuclear) strategy therefore became the central issue of “sensemaking”—in the discursive institutionalist sense—for the US military. Early strategic thinking in general, and the role envisioned for the A-bomb in particular, was influenced by five factors in the latter half of the 1940s: the atomic bombings; the emergence of the Cold War and Russophobia in the US; containment as the political answer to the

¹²¹ The subject of this case study, the so-called RAND Bombing Study, remains classified to this day. In this chapter I will rely on secondary sources written by historians who had access to related materials at RAND; on my own archival research on Air Force reactions to the study’s findings at the National Archives; the recollections of key players in the RAND Oral History Project interviews at the Smithsonian Archives; as well as my personal consultations with Martin Collins, author of *Cold War Laboratory*, the single most detailed historical analysis of the Bombing Study available. Despite these issues with sources, I treat the study itself and the methods used in it in high detail. This in-depth analysis is not aimed at the description of the very specific techniques that the analysts applied as these would, on their own, have little relevance for the overall argument. Rather, it serves as a demonstration of how RAND analysts approached problems and translated them into systems analysis questions. This demonstration will in turn enable me to save the reader from similar levels of historical detail in the other two case studies.

¹²² Quote in The RAND Corporation, 1996, p. 24.

perceived Russian threat; a fear of a “second Pearl Harbor”; and the WWII experience in war fighting (strategic bombing¹²³). With a disarmed conventional army, atomic weapons took the center stage in deterring the Soviet Union, whereas strategic formed the backbone of contemporary war plans. Hence, in a way, existing traditions offered a ready set of practices both for assigning meaning to the problem (see the Pearl Harbor analogy) and offering solutions (strategic bombing). As I mentioned earlier, it was believed that a potential World War III would be conducted like the previous one: with massive aerial campaigns against the enemy’s “ability to wage war”, that is, its industrial centers. Consequently, responding to the needs of an emerging Cold War—specifically securing the Clausewitzian *Ziel* of a potential war by debilitating the Soviet economy—was central to the self-definition of the newly formed US Air Force, and was therefore the major source of early policy dilemmas the service had to face.

As I discussed in the previous chapter, military policies that framed Air Force doctrine during the analyzed period were traditionally formed by the political and military elite in tandem, whereas attitudes about the role and use of the atomic bombs were primarily set by presidential politics. Nevertheless, in terms of implementation the military enjoyed great flexibility, pushing the real debate to the realm of targeting philosophy and practice. Since the US atomic arsenal was fairly limited due to scarce fissile material resources and a complicated production chain, selecting proper targets conservatively was imperative. With less accurate weapons and the added goal of hitting multiple “bonus targets”—a euphemism for metropolitan infrastructure such as power plants or military bases, or even the population

¹²³ The United States Strategic Bombing Survey’s report, conducted at the end of the war, served as the primary expert material for justifying the impact of strategic bombing. The reports contained a massive 208 volumes for the European and another 108 volumes for the Pacific theater, giving a favorable review of the campaigns. The summary reports are available online (United States Strategic Bombing Survey, 1946a, 1946b). For an academic analysis of the bombing campaign and its effects on Air Force doctrine see Baran & Galbraith, 1947; McMullen, 2001; Rigole, 2002; or Werrell, 1986.

itself—targeting Soviet cities was considered the most logical option. Nevertheless, for military reasons, targeting was not limited to cities, but also involved military installations (ports, airfields, radar stations etc.) and advancing enemy troops.¹²⁴

The nature of selected targets also implied which service should attack them, so the division of labor became the central issue for contention, and led to an interservice clash along organizational traditions, specifically the strategic priorities those implied. The US Thus, as I mentioned earlier, even though the Air Force controlled the strategic bomber fleet, its budget requests and its primacy in controlling the nuclear stockpile were questionable, at least from the point of view of the other services. This legitimacy crisis opened a dilemma for the Air Force and an entry point for outside persuasion since the Air Force needed a scientifically supported configuration of goals and resources, and a discursive strategy to promote these, which would put the service at the spearhead of future American war efforts..

What makes this particular case so compelling for discursive institutionalist research is that defense rationalism also underwent a legitimacy crisis *vis-à-vis its patron* along a sensemaking problem (the issue of designing bombing systems). In the late 1940s, RAND was facing identity building issues similar to those of the Air Force: the think tank, then still a fairly new project, desperately needed to define its own niche within the Air Force bureaucracy, so that its research efforts and its broad mandate appear justified. Although the Air Force did not actively seek out RAND's advice in specific issues during these initial years, aiding the service in the targeting debate seemed like a natural point of entry for the research institution.

¹²⁴ For a more in-depth view on contemporary military thinking see "War Department Thinking on the Atomic Bomb," *Bulletin of the Atomic Scientists* Jun 1947, pp. 150-155.

It is also important to emphasize at this point that Randites did have the possibility to publish outside of the think tank and thereby reach other audiences (including the public, Congress and the Executive), this resource was less used in these early years when RAND still self-identified as an Air Force subsidiary. Nevertheless, to this primarily audience we also need to add a second one: the scientific community. As I have previously mentioned in this dissertation, the US military's, but also RAND's aim was to attract the best and the brightest from academia. Thus, on the one hand, potential staff members were selected based on academic reputation where the category of "best proper scientist" had been established by a group outside of the military bureaucracy: scientists. In a truly Kuhnian sense, Randites selected from this pool brought the earlier discussed well-established scientific tradition (standards and methods) with them to civilian-military cooperation. On the other hand, RAND staff was attracted by the promise of policy relevance (patriotism) and the possibility to maintain ties to academia, for instance through open, unclassified publications and guest lectures. This opportunity enabled RAND researchers to test their methods against an expert, academic audience which assessed their work from a point of view fundamentally different from that of the Air Force. For defense rationalists, the two points of view were closely tied through the science of warfare. Yet, as the failures of the Bombing Study demonstrate, catering for both audiences required not only scientific finesse, but also persuasion. At this point it is sufficient to say that these ties furthered RAND's breakthroughs in fields of research such as computing or game theory, thereby contributing to the general scientific revolution within the social sciences. The ability to both serve the country and maintain academic ties attracted a number of top-grade talents to RAND, as manifested by the list of Nobel Prize laureates working for RAND from Kenneth Arrow to Thomas Shelling and John Nash.

5.2. Origins and failure of a study: An overview

RAND's early research reflected an engineering approach. The first study from 1946 entitled Preliminary Design for an Experimental World-Circling Spaceship SM-11827 was hailed as a considerable contribution to satellite research. The study also tangentially assessed the possible uses of such a device, thereby foreshadowing the age of the ballistic missile that would obviate the manned bomber (Klemperer, 1946). Such thinking ran counter to Air Force thinking at that time. Yet maintaining an engineering approach was more the product of circumstance (RAND's affiliation with Douglas) than of deliberate choice. RAND's researchers were not limited to readily available problems (those mostly suited for operations research) by their broad mandate, but were interested in broader questions, including strategy, and could thereby "encroach" on military territory. For the institution, the complexity of strategic questions necessitated a gradual widening of RAND's research portfolio towards the social sciences, and it also necessitated taking the Air Force not as the object of these very same analyses. Conducting research not only *for* the Air Force but also *on* the Air Force lent RAND direct policy relevance, but also rendered studies more contentious whenever they challenged dominant Air Force thinking and institutionalized traditions. For defense rationalism as a tradition, the development of systems analysis to engage complex questions of strategy necessitated discursive techniques that could enable experts to transmit convoluted, mathematical findings to a layman audience. In this sense, the centrality of systems analysis to defense rationalism shaped the evolution of persuasion techniques throughout the period analyzed in this dissertation.

In order to capitalize on RAND's broad mandate, its management, most notably Director Frank Collbohm, sought to develop the aforementioned "science of warfare", define

the organization's domain of research, conduct research relevant for the Air Force, and create effective ways of communication for the dissemination of RAND research. As the story of the failed Bombing Study demonstrates, all of these elements are crucial for successive influence and involve discursive abilities of persuasion on the part of the disseminator. Though some methods, most prominently game theory, seemed easily transferable to other domains of inquiry, such as military strategy, translation was still not automatic: these methods and the results they produced were not self-evident, even intelligible to a military audience. As the Bombing Study's developers put the emphasis on being scientific both in terms research design and presentation, considerations of Air Force interests as well as audience-specific forms of communication were neglected. This gap between the two traditions partially explains the failure of RAND's discursive strategy in promoting the analysis, as well as the subsequent failure of the study.

The Bombing Study, aimed at devising the most effective ways of delivering atomic bombs to the Soviet Union, marked RAND's first attempt at venturing into the field of military strategy.¹²⁵ It represents, in Andrew May's (1998, p. 40) words, "the infancy of systems analysis" where some RAND analysts became "overly concerned with style over substance" as the study "dissolved into methodological exercises of little strategic merit". As both May (1998) and Collins (2002) argue, by the early 1950s—the time right after the presentation of the study—RAND had ridden itself from its focus on style and started to fulfill its mandate with a sound methodological basis. The process of turning abstract scientific practices into a project that produces military policy knowledge was not without its

¹²⁵ The literature is split on the origins of defense rationalist influence on American strategic thought. While Smith (1966), Jardini (1996), May (1998) and Collins (2002) start their analyses with the Bombing Study as its point of origin, Digby (1990) and Kaplan (1983) trace the entry point back to the decision to include social scientists into the RAND staff in 1948, *after* the failure of the Bombing Study. Marc Trachtenberg (1989, 1991) on the other hand claims that the ideational turning point lies at the invention of the hydrogen bomb in 1952.

obstacles, but RAND analysts were eager to broaden their research toolkit as well as their focus. As James Digby recalls,

most of us knew little about formal air strategy. So Paxson had the library order the works of Sun Tzu, and Olaf Helmer organized games of *Kriegspiel*, the strategy-heavy blind chess game of the old German General Staff. While Hitch led studies of the economic effects of bombing and RAND's Social Science Department analyzed Soviet behavior and the effects of war on morale, Paxson organized RAND's first major analysis of an air campaign against the Soviet Union. He drew on his colleagues' work in targeting, morale, aircraft design, and future weapon characteristics. (The RAND Corporation, 1996, p. 23)

Hence, as historians often argue, RAND's mistake was not disregarding military thinking, but depoliticizing it: focusing on abstract strategy without engaging military doctrine in its organizational context. The model developed for the study was, from a purely mathematical point of view, a massive achievement, and it even served as the basis for one of RAND's "crown jewels", the Basing or Vulnerability Study. RAND's failure is more apparent when it came to incorporating Air Force interests into the research design, as well as the study's communication. Crucially, these points in my view question less the science underlying the Bombing Study than the corporation's ability to act as a bona fide think tank. Consequently, remedying the repercussions of the failed study at RAND was more about re-contextualizing systems analysis as a method in terms of its goals and capabilities, than simply making it "better", i.e. more scientific. This need for re-contextualization draws attention to the non-linear evolution of both defense rationalism as an approach, as well as the ideas it produced.

A second issue with presenting the history of defense rationalism as one of linear evolution is the problematic relationship between methods and ends, and its effect on relevance. As critical scholars like Bentley Allan (2013) argue, scientific methods carry certain ideologies and, once institutionalized, they fundamentally impact on the organizational tradition of the institution, including the construction of policy problems and their possible

resolution. The ability, and even the need for setting policy goals and problem for the Air Force, potentially *without* the Air Force is echoed in Edward Quade's (1963, p. 8) discussion of systems analysis, incidentally in the form of a medical metaphor:

because the concern is with the future, the major job may be to decide what the policy maker should want to do. Since systems studies have resulted in rather important changes not only in how the policy maker carries out his activity but in the objectives themselves, it would be self-defeating to accept the customer's or sponsor's view of what the problem is. An analogy with medical practice may be drawn. No doctor ignores the patient's description of his symptoms, but he cannot allow the patient's self-diagnosis to override his own professional judgment.

Thus, for defense rationalists, the practice of substituting means (method) for policy relevance (ends) does not end with this initial study. It is true that the Bombing Study presented a bizarre misinterpretation of what an Air Force-mandated study had to be, yet subsequent improvements were not all unidirectional in the sense that RAND merely "learned" to better pay attention to the patron's needs. The translation between traditions works both ways and, as Allan (2013) shows with the example of the World Bank, adopting scientific methods for a whole organization comes with caveats. Due to the nature of RAND's methods and the language through which defense rationalism presents its ideas, the methods themselves became the end in that, despite all their perceived versatility, the universe of questions and answers one produces through such means is necessarily limited. These limits then affect military problem construction, thereby closing the reflexive loop.

As interpretivism shows, the dissemination of defense rationalist methods is inseparable from the dissemination of policy beliefs. It is precisely the institutionalization of the tradition carrying these elements that explains the longevity of defense rationalist thought, as it dismantles outside criticism under the protection of a "scientific approach" to strategy (cf. boundary work). The question whether individual studies as the embodiment of ideas

succeed within the strict bureaucracy of the Air Force has to be explained with reference to the context, and when and how idea carriers—primarily defense rationalists—used their discursive abilities to exert influence.

With the science of warfare, first tested in the Bombing Study, the idea was to give a more systematic approach to the problem of war, one that is able to handle the seemingly infinitely complex system of organized warfare while taking into account questions of scarce resources and effectiveness. A similar method was already successfully used in World War II: operations research (OR). But OR was a static method, and the aim defense rationalists set for themselves required a tool that is capable of tackling complex systems dynamically. As discussed in section 4.4.2, the resulting approach, systems analysis, was more complex than its predecessor both in terms of its toolkit and the questions it addressed. It was aimed at developing a complete military system, such as a bombing system or the air defense system of the continental United States. Meanwhile it sought to identify and/or devise the best strategy and tactics for the system, the weapons to be used, as well as their procurement, and even their maintenance. In essence, this method boiled down to determining the key elements in a complex, yet in some form existing system, understanding how these parts interact and then devising a system best suited for achieving the strategic end (*Ziel*)—in this case, the most destruction inflicted upon the enemy under a fixed budget and posture. On the one hand, the need for understanding the interlinkages among countless variables necessitated advanced quantitative methods, experiments and computer technology, spurring RAND's famous breakthroughs in auxiliary research. On the other hand, the dynamism of systems analysis forced analysts to think not only in terms of existing, but in development or even not yet existing weapons systems. This element of the method made RAND's research relevant for

Air Force procurement plans, which were central to success in the interservice targeting debate.

Randites were free to pursue the question they found interesting, and once they did, the success of a study largely depended on asking the right questions, which in turn could offer a level of initial simplification that made the problem treatable. What defined a “right question”, however, was contingent on the policy context, not only on the requirements of the “objective” science (systems analysis) behind it.

5.3. Changing context

The basic strategic assumptions underlying the Bombing Study reflected dominant Air Force doctrine: the massive strategic bombing of the Soviet Union, targeting mostly its economic capabilities to wage war. War thus would be like WWII: it would break out suddenly and quickly turn into a prolonged total war, fought primarily with long-range bombers. Accordingly, instead of opting for less vulnerable carriers for the atomic weapon, the Air Force sought to increase the survivability of bombers with performance-enhancing development in speed, propulsion, range, armament and weapons accuracy (Converse III, 2012a, p. 207).

Despite its rather timid goals in terms of reinterpreting Air Force strategies, the Bombing Study became crucial for the young organization due to a number of interrelated political and technological developments. These contextual shifts also necessitated changes in the study’s setup, changes which in turn will define the development stages I have reconstructed in this chapter. Firstly, the Air Force began a review process in 1947 that continued well into the 1950s about the successor of the B-29 and the newly introduced B-36

bombers. The Air Staff eventually selected the B-52 “Stratofortress” as the successor.¹²⁶ However, the plane’s development was repeatedly delayed in its early stages due to design problems, keeping both Air Force commanders and RAND analysts in limbo about the next workhorse of SAC. Second, the rapid development of the Soviet atomic bomb in 1949 caused a shock around the American military and political elite. Coupled with heightening tensions in Europe, the bomb scare increased demands for the services in carrying out a plan of massive proportions against an enemy capable of nuclear retaliation, thereby raising once again questions about the Air Force’s ability to head the national defense mission. The US Navy tried to capitalize on the review process, spurring bitter interservice rivalries which culminated in the “revolt of the admirals” scandal. This intensifying rivalry forced the Air Force to present justification for its mission and primacy among the services. Third, even though the Air Force was in need of justification, its planning efforts were severely constrained by budget cuts. Concomitantly, tight budget constraints put the emphasis on the nuclear stockpile as an alternative solution to a conventional army, pressuring the Air Force to conceptualize its strategies as *nuclear* strategies, with a fixed, limited number of warheads available.¹²⁷ The budget constraints that overshadowed the development of the Bombing Study were only lifted at the outbreak of the Korean War in June 1950.

Fourth, due to the development of a streamlined production chain and the discovery of new uranium deposits, the Atomic Energy Commission could increase the number of available bombs from two after the war to circa fifty by the end of the 1940s. The development of smaller, more cost-efficient and more rapidly producible weapons further

¹²⁶ The iconic B-52 Stratofortress is a long-range, subsonic, jet-powered strategic bomber still in service with the US Air Force. Introduced in 1955, the plane quickly became a symbol of nuclear war and strategic bombing.

¹²⁷ The low number of A-bombs did not necessarily limit Air Force bomber procurement goals. The argument went that if there are few atomic bombs, many more bombers with conventional payloads would be needed to achieve the desired level of destruction.

increased demand for a long range bomber that could be produced *en masse*, strengthening the Air Force's bid for the B-52. Fifth, talks about the development of the H-bomb needed to be factored into the conclusions of the Bombing Study, which, even though was completed before the first test of the H-bomb in 1952, still projected bombing systems to the second half of the 1960s. Finally, organizational changes in the Air Force shaped RAND's primary audience. In 1948 General Hoyt Vandenberg took over the position of Chief of Staff USAF from General Carl Spaatz, the Aircraft and Weapons Board and the Senior Officers Board (SOB) were created, and, most importantly, General Curtis LeMay was appointed head of Strategic Air Command.¹²⁸ In general, the rotation of key officers characteristic of the military services often made it hard for Randites to create winning coalitions for research projects that took years to complete. Successfully managing "stable elements" like LeMay was therefore pivotal.

The RAND study aimed at devising a future bombing system, but more crucially, trying to recommend a new bomber for the Air Force, was crucial in addressing most of these issues. Consequentially, RAND's work in these years got fused with Air Force interests, and the complexity of the study spurred a rapid development of methods that RAND became famous for. Thus, the study's story on the one hand highlights the impact of institutional constraints with Air Force interests readily identifiable from contemporary documents. On the other hand, RAND's reliance purely on the scientific authority of systems analysis in disseminating ideas shows the problems of unproblematic persuasion.

¹²⁸ LeMay climbed the whole echelon of the Air Force. He became Vice Chief of Staff in 1957 and Chief of Staff in 1961.

5.4. Conceptual origins of the bombing study at RAND

In 1947 RAND Director Collbohm appointed Edwin Paxson to head the Bombing Study. After his arrival, Paxson quickly made an impact on RAND's life: he immediately reorganized the bombing systems analysis, and included the economic concept of cost as the guiding principle into the research design—due to the envisioned budget cuts, the idea was to devise the best system conceptualized in terms of a cost/destructiveness ratio under a fixed budget (Collins, 2002, p. 164).

As RAND was giving a new boost to its research on bombing systems with the appointment of Paxson, the Air Force also underwent a series of reorganization acts. In 1947 Chief of Staff Spaatz eliminated Curtis LeMay's position as Vice Chief of Staff, Research and Development. To compensate for the loss in intraservice R&D capabilities, LeMay convinced his superior to create the Aircraft and Weapons Board (AWB). Established in August 1947, the AWB assessed research and development programs for major procurements. The board was charged with selecting "specific aircraft and weapons models for procurement" and reported directly to Secretary of the Air Force Stuart Symington, a strong political supporter of a strong Air Force. Simply through its mandate, the AWB became RAND's primary Air Force peer for the Bombing Study. Meanwhile, confrontations with the Soviets in 1946 and 1947, and rising tensions in Berlin forced the Joint Chiefs to revise the 1946 "Pincher" war plan, expanding the target list and number of weapons used therein. For the purposes of this chapter, the changes in targeting gain importance through their effect on bureaucratic dynamics and the technological demand for new planes that can carry out these plans, most notably the aforementioned B-52.

The Air Force thought the B-52 program could solve the performance problems of existing planes (a source of Navy criticism), obviate the need for overseas bases with its extreme range, make use of smaller atomic bombs which the AEC reported would be available before the plane is ready, and generally provide more flexibility in fighting wars. Simply put, the Air Force *wanted* the B-52 for its arsenal, and as a consequence, the fate of the plane became intertwined with that of the RAND study. Choosing the right plane was essential for the Air Force's reputation and future budget plans, and "the right plane" was universally understood to be synonymous with the B-52. Since the RAND study was to recommend the best bomber for the Air Force, Randites needed to look into procurement plans, and into early B-52 designs (Collins, 2002, p. 174). Despite LeMay's obvious support for the B-52,¹²⁹ RAND was initially critical, and only dealt with existing technologies—an approach that aligned with AWB interests in developing a strategy for atomic bombing as soon as possible, but seemed to run counter to B-52 procurement plans and the personal beliefs of bomber commanders.

In the backdrop of this technological-institutional context, Paxson began presenting preliminary findings to the Air Force as soon as 1947¹³⁰. In these early presentations, he talked extensively about the research design, the complexities of the project, and the wide applicability of the research method. According to the presentation, Paxson's team was searching for the best bombing system in terms of cost and damage delivered, so researchers looked at technologies in use in three areas: 1) aircraft capabilities 2) attrition (how many planes could get through Soviet air defenses) and 3) target coverage (targeting) (Collins,

¹²⁹ LeMay was a veteran of the Japanese bombing campaign and a true manned bomber airman. He believed in the primacy of (intercontinental) manned bombers well into the missile age.

¹³⁰ Presentations by both Paxson and Williams introduced the methods, such as systems analysis, military worth, or the target coverage (pinball) machine. (Schedule of RAND portion of briefing Oct. 20-22, 1947. NARA II RG 341, ENTRY 335, Box 474, Folder OPD 385 (RAND), Sec 1 "Reciprocal briefings" between RAND and the Air Staff.)

2002, p. 176). The central problem to be solved was “to determine what airborne bombing system (or combination of systems) will cause the most damage to the enemy for any given value of the sum S and given strength of enemy countermeasures” (Collins, 2002, p. 177). Based on this formulation, the *Aerial Systems Analysis*, the first comprehensive iteration of the Bombing Study dealt with available subsonic manned bombers for immediate policy relevance, and six kinds of bombing systems: one-way from home bases, one-way with refueling, one-way with intermediate bases, and the same set for roundtrip missions. These basic elements combined created a complicated, non-static system with political factors absent. The system’s dynamism in turn introduced an additional problem: time. The study was supposed to be about a hypothetical air campaign in the years 1956-1960, a timeframe that reflected considerations for the cycle of research, production, development and subsequent obsolescence of the “best” plane at the end of the period. However, this assumption introduced uncertainty vis-à-vis future Soviet defenses and changes in bomb technology.

The research design presented in late 1947 showed an awareness of certain Air Force concerns, most notably cost efficiency and the centrality of the bomber to strategy. With this approach to the problem at hand, RAND could frame its work as immediately relevant vis-à-vis the Air Force. Nevertheless, despite RAND’s efforts, the presentation did already foreshadow a number of contentious issues, most crucially that even though the problem was of immediate concern to the patron, the specific conclusions that RAND would deliver might run counter to Air Force expectation. Paxson himself pointed out that given fixed budgets and an emphasis on economy (RAND’s assumptions), the best solution would probably be closer to an existing, state-of-the-art system for two reasons. First, R&D and production costs would be much higher for an improved bomber (trends showed increasing costs), so the Air Force

could buy fewer of the new bombers, making penetration of Soviet defenses difficult. But were the Air Force to buy more of the cheaper bombers, industry could drive prices down even further due to the increased level of procurement. Second, a less capable bomber could be produced earlier, making the Air Force able to carry out its mission sooner (Collins, 2002, p. 178). Though in essence, these assumptions conformed to the AWB's preferences and would have strengthened Air Force positions in proving its ability to carry out the mission, RAND's hunches were antithetical to Air Force thinking that partially led to the creation of RAND: short weapons cycles, meaning that new and improved weapons systems should supersede old ones as soon as possible (see Ball, 1980). Paxson was of course aware of the delicate balance between quality and military readiness/costs. He so explained his decisions:

If you have a given sum of money available it may be better to get a lot of airplanes of [a] given type and actually defer building a new one even though you could build an improved model. Because from the point of view of an air force-in-being it might be better to have a large number of airplanes, larger losses but a total greater number getting through to the job. It is a funny proposition. You can argue progress certainly means doing the best you can at every instant but you may not be able to have enough volume of the best at each instant under a plan like that and this is one of the big binds in the problem of time phasing.¹³¹

Nevertheless, in these early stages of the report, Paxson's hunches did not generate much opposition, partly because of the optimism about the success of systems analysis, and partly because of the aforementioned uncertainties about the B-52 program. After the initial 1947 presentation rounds, RAND had two years to compile the necessary data and conduct the final analysis, which was presented in early 1950. The major problem Paxson encountered at the end of the period was that in these two years, his primary assumptions were obviated by a quantum leap in jet propulsion technology. Paxson tried to keep up with the changing environment and introduced a number of changes, some even in his basic assumptions, but he

¹³¹ Paxson: "Aerial Bombing Systems Theory and Analysis" pp 25-26, quoted in Collins 2002, p. 179.

was more motivated by scientific considerations than political concerns: these changes were not meant to harmonize the study's recommendations with Air Force positions, but to better reflect changes in the context while maintaining the study's methodological integrity. In essence, RAND tried to guard its independence and not argue for a specific (acceptable) solution, but to succeed purely through scientific authority, thereby legitimating its relevance vis-à-vis the Air Force.

Reconceptualizations were very much influenced by John Williams' theory of worth, one of the underlying ideas of systems analysis and a kind of language that later facilitated RAND's cooperation with Defense Secretary McNamara in the 1960s. The major remaining problem for Paxson was a mere lack of data, especially in terms of Soviet air defenses. Such immediate limitations meant that the study needed to be simplified. As the first step, Paxson decided for a static analysis of only the first wave of attacks, dropped the use of intermediate bases and only focused on mid-air refueling or no refueling. Yet, as I mentioned previously, Air Force war plans envisioned total war with the Soviets, one that could take months with several bombing raids which would at least partly be launched from intermediate bases. Curiously, however, these changes in the basic setup also seemed to push the conclusion towards a jet bomber which would not need to rely on forward bases due to its range. On the other hand, simplifications both due to technological limitations, lack of data and Paxson's own approach to the problem also meant an almost total disregard for political variables, some of them crucial in the eyes of Air Force officers. Former head of RAND's Economics

Department, Charles Hitch, recalled that Paxson saw the issue not as one of military strategy, but as a problem of “transporting bombs” at the lowest possible cost.¹³²

5.5. Communicating research

In 1948, General Vandenberg took over from General Spaatz as Chief of the Air Staff and immediately reorganized the AWB, creating a new body, the USAF Board of Senior Officers or Senior Officers Board (SOB)¹³³ (Futrell, 1989, p. 213). In its infancy during the Air Force review process, the Senior Officers Board was quite supportive of RAND’s work and even wanted to expand the corporation’s mandate toward the military as a valid object of research. Some members were even keen on using RAND staff as their surrogates in the review process, or to manage their meetings with service commanders. This approach to RAND once again shows the think tank’s embeddedness, but also that some officers were quite welcoming in RAND’s bid for a scientific treatment of military decision-making. Nevertheless, Collbohm was suspicious of the offer and did not take it, thinking that it would bog RAND down into the bureaucratic struggles of the Air Force, thereby endangering its independence. During the review process (under constant interservice rivalries and austerity measures), making the right decisions was crucial, and failure came with heightened risks. RAND’s abstaining from an

¹³² ROHP interview with Charles Hitch February 9, 1988. Smithsonian Archives, RAND History Project. Interviewers: Martin Collins and Joseph Tatarewicz. Auspices: RAND. Length: 1.1 hrs; 22 pp. Smithsonian Archives, RAND History Project Interviews, Box 9.

¹³³ Members included Vice Chief of Staff Fairchild (director), the deputy chief of staff for operations, for materiel, and the commanding general, Air Materiel Command. Both Secretary of the Air Force Symington and Vandenberg referred problems to the board, but never attended its meetings or directly influenced its decisions, reflecting the Chief of Staff’s view that “in the final analysis, the top command of the Air Force is responsible for the weapons with which it will fight the war” (Quoted in Futrell, 1989, p. 213).

institutionalized connection with the SOB might have served its survival when the study eventually failed so utterly (Converse III, 2012a, p. 71).¹³⁴

Paxson presented to the new board in 1949 and the first half of 1950. In a memorandum, Gen. Fairchild, Vice Chief of Staff USAF and head of the SOB, remarked in anticipation of the first presentation of the completed study that “the results of this study are expected to have considerable impact on the thinking of the Air Staff.”¹³⁵ But the Senior Officers Board sought to review not just RAND’s work, but the entire Air Force research, development and production program—a review that was necessitated by Truman’s planned budget cuts for FY1950, and the development of the current war plan “Fleetwood”. Despite the initial anticipation, the SOB’s position on Paxson’s ongoing project quickly became ambivalent. A 1949 Aircraft Weapons Board Proceedings transcript shows how dismissive the Senior Officers Board was to RAND. With regards to Paxson’s team it somewhat condescendingly stated that “they have been working feverishly at this heavy bomber project. The Board has made a decision now on the bomber that there won’t be any new bomber for a long time. It seems to me they can slow down.” This attitude shows a misunderstanding of the aim of Paxson’s study and its specific approach to the scientific treatment of military problems. Another member of the Board more clearly shows the officers’ aversion to civilian scientists “meddling” in Air Force affairs:

I think they are a bunch of people who if not employed in RAND would be employed as assistant professors in physics in small colleges and that they are not going to come out with the answers that we expect from them.¹³⁶

¹³⁴ The financial plenty of the Korean War budget decreased the intensity of procurement debates, thence lowering the SOB’s enthusiasm for involving RAND in its work.

¹³⁵ Memorandum for General Anderson by Gen. Muir S. Fairchild, Vice Chief of Staff USAF Subject: Project RAND Presentation. 27 Dec. 1949. NARA II RG 341, ENTRY 335, Box 474, Folder OPD 385 (RAND), Sec 1.

¹³⁶ Transcript, January 3, 1949, p. 302. NARA II, RG 341, Entry 450, Folder: “Aircraft Weapons Board Proceedings”.

Despite mounting opposition, Paxson still had allies within the Air Force echelon, most notably General Donald Putt, head of the Research and Development Directorate on the Air Staff.¹³⁷ With the help of other sympathetic Air Force officers, RAND tried to disseminate the findings of the study. Progress up to its completion had been communicated to the Air Staff mainly through quarterly briefings. These were used in addition to written reports and day-to-day interaction with Air Force officials. RAND's Washington DC office played the role of liaison to the government and the military bureaucracy, arranging meetings and acting as a general problem solver. In addition, RAND also established a small office in Dayton, Ohio at the Wright Air Force Base which is the HQ of the Air Materiel Command (AMC), the branch of the Air Force responsible for research and development. Typically, after briefing the Air Staff, RAND repeated the presentation in Dayton to get insight into the AMC laboratory programs.

Director Collbohm and Paxson both knew that they had to persuade General LeMay, since, apart from the centrality of his position to the object of the study, he also went public with his support of the B-52, so he was bound to look into the RAND study. The two found an opportunity when SAC asked RAND to consider what bomb weights and destructive potentials were best suited for the JCS war plans. As Collins (2002) notes, the two realized that the bombing study provided the best context to address the question and again changed the statement of the problem: given a fixed amount of fissile materials and a fixed amount of money to procure, operate and maintain a force for a four-year period, specify the atomic bombs and aircraft that will maximize damage of an initial atomic attack.

¹³⁷ Support was mainly geared towards military-civilian cooperation and the scientific treatment of military problems in general, not particular recommendations of the study.

RAND rushed to provide the answer to this question. The two RAND representatives engaged the Air Staff in late July to share their findings and once again try to persuade General LeMay of the value of their analysis. In his introductory remarks Collbohm mentioned that RAND has

worked very hard over the past six weeks on this problem [preferred bomb size](...) In view of the urgency of the requirement for a decision on future bomb development, we have attempted using the skills and efforts of our entire staff, to take a first cut at a *real bombing systems analysis*. (Quoted in Collins, 2002, p. 195, emphasis added)

He also emphasized that “RAND is not primarily concerned with the detailed characteristics of existing instrumentalities.” The disinterest in existing systems was a direct consequence of the nature of the study and of systems analysis, not RAND’s mandate or LeMay’s support for new technology. The mandate, with its Air Force institutional links, involved the Corporation in both existing and future technologies, which in turn put it in the middle of the politicized Air Force procurement process. At this point in its history, RAND needed to learn that its flexible mandate in terms of research objectives still does not insulate it from Air Force interests and politics. The studies commissioned by the Air Force—or even those that were initiated by RAND, but later picked up by the patron— also had to cater for a political goal *while* staying true to the science of warfare: to help manage both internal disagreement in the service and the interservice rivalries over its mission, the military budget and procurement cycles. As both May (1998) and Collins (2002) note repeatedly, Director Collbohm was more aware of these constraints than his staff, and said that the presentation was in

no sense a formal presentation; it is in the nature of a consultation. (...) The real reason why we wanted to meet with [the Air Force officers], and in particular why we were especially anxious that Gen. LeMay be present personally, was our feeling that we badly needed guidance and advice from

the most experienced commanders and operational people in the Air Force.¹³⁸

Aware of the fine line they were walking at this stage of the project, Collbohm and Paxson consciously did not talk about preferred bomb size in fear of telling too much about other assumptions which affect the study's position on the B-52. Trying not to antagonize the Air Force, Collbohm agreed that "any study which might tend to indicate changes in Air Force policy on matters other than bomb development should be taken up within the *family* first" (Quoted in Collins, 2002, p. 195, emphasis added). Paxson in his presentation on the technicalities of the study was equally timid at being specific: he basically argued that depending on the accuracy and Soviet defenses, many answers were possible. The emphasis was on the scientific rigor of the study: its most obvious—and for Paxson, indisputable—merit.

Generally speaking, in its first five years of existence, RAND strove to communicate its uniqueness to the Air Force leadership so that the corporation would not get lost among all the other research bodies. The Paxson study was seen as the perfect vehicle for achieving this task. The series of high level briefings before and after the completion of the study show not only RAND's institutional access, but also the importance of the topic of its investigation. During the final weeks of dissemination, Air Force interest grew in the study due to its perceived immediate implication on bomber procurement. However, reactions were mixed at best. At the SAC base in Omaha, Collbohm was unable to meet with LeMay, so he had to talk to his deputy, General Power. LeMay and Power were close colleagues, but the latter did not share his superior's general enthusiasm for scientifically aided Air Force strategies.¹³⁹ Not surprisingly, Power was quite unmoved by Paxson's presentation and, as Collbohm notes,

¹³⁸ ROHP interview with Frank Collbohm.

¹³⁹ In *Dr. Strangelove* (Kubrick, 1964), the character of General Jack D. Ripper (Sterling Hayden), who goes mad and initiates global thermonuclear war, was loosely based on Power.

acted as “though we were a bunch of Congressmen and he was defending the Air Force. He was personally guaranteeing they would be able to hit the targets” (Collins, 2002, p. 197).

In early November 1949, Collbohm again presented the study to LeMay, trying to win his support. Though initially hostile, the general’s position softened, and he eventually admitted that the RAND position that favors low-performance bombers in huge numbers might have some merit.

I have changed my mind a little bit on some things. I used to think, right up to now, that as guided missiles—air-to-air and ground-to-air—were put into operations, we would have to have airplanes that would go faster and faster and bigger and bigger. Now I am beginning to see that maybe we would be better off with just ninety mile an hour boxcars but a hell of a lot of them all carrying RCM [radar countermeasures]. (Quoted in Collins, 2002, p. 200)

Nevertheless, he still remained critical and questioned the cost assumptions that favored turboprop engines to turbojets, asking RAND to go back to the Air Materiel Command which originally provided the data for engine costs. The AMC however responded that the original estimates were incorrect, and the new figures showed a much smaller difference in cost. Despite this turn of events, the RAND team did not change the study’s conclusion, but Collbohm and Paxson strongly felt that LeMay and the AMC consciously changed the numbers to undermine them to protect institutional interests.¹⁴⁰

5.6 The Strategic Bombing Systems Analysis is presented

The final report, entitled “Strategic Bombing Systems Analysis R-173”, was completed in 1950. Truly an astronomical feat compared to earlier operations analyses, it dealt with more than 400,000 possible combinations of variables associated with technical operational and

¹⁴⁰ See ROHP interview with David Novick. Date: February 24, 1988. Interviewer: Martin Collins. Auspices: RAND. Smithsonian Archives, RAND History Project Interviews, Box 9.

cost factors. Frank Collbohm immediately began a series of briefings to the Air Staff based on Paxson's notes. The final problem setup read as follows:

Given a fixed amount of fissile material and a fixed sum of money with which to procure, operate and maintain a strategic striking force at strength for a four-year period, specify the atomic bombs and aircraft which will maximize damage of an initial atomic bombing strike.¹⁴¹

The final study argued for two principal recommendations. First, that the best airplane would be a turboprop bomber with a gross weight of 170,000 pounds and a cruising speed of 400knots and an altitude of 47,500 feet. However, the B-52 used turbojets, weighed nearly twice as much and cost more. Second, that a crucial factor in overcoming Soviet defenses was the number of aircrafts. The study consequently suggested that the most destructive mode of attack was to saturate Soviet defenses simultaneously, with aircrafts traveling in groups of ten. Thus, in sum, the study strongly reinforced its earlier numbers above quality argument.

Just like the reports, the final study was also widely disseminated and presented. On 9 January 1950 RAND briefed General Vandenberg and twenty other Air Staff officers. The Chief of Staff quickly appointed a technical advisory committee to look at the study, review its assumptions, methodology and its implications. General LeMay was also present and asked for a separate presentation for SAC later that month. Paxson and Collbohm next briefed the WSEG leadership, then a review was prepared that was presented to a group of more than two hundred representatives of the Air Force, Navy, Army, Department of Defense, Atomic Energy Commission, Bureau of the Budget and other government officials. Next, on 24 January, a briefing was given for those involved in atomic weapon development: the Sandia Corporation, the Armed Forces Special Weapons Project, the Los Alamos Laboratory, the AEC's Military Applications Division, whereas the AMC staff was informed on 27 January

¹⁴¹ Memorandum for General Anderson Subject: Project RAND Study R-173, Strategic Bombing Analysis. 13 April 1950. NARA II RG 341, ENTRY 335, Box 474 Folder OPD 385 (RAND), Sec 1.

1950. On 30 January, LeMay and his staff received the requested briefing in Omaha. Apart from these presentations, the study was also turned into a shortened report and circulated among relevant agencies (both to those selected by RAND and those requested by Air Force echelon).

Fred Kaplan summarized the outcome of these briefings in one blunt statement: “Air Force officers, almost all of whom were pilots, hated the study” (Kaplan, 1983, p. 63). The major problem of course was that the Air Force wanted to see a study that pushes the requirements for existing aircraft, thereby making development and procurement necessary. Instead, mass produced, inexpensive planes were suggested that would be used in a single strike. The recommendations also antagonized LeMay and his staff—the people who would actually have to carry out the mission were the Air Staff to accept RAND’s position. Collbohm noted on the series of January presentations to the board of trustees that LeMay’s response was

the tough, practical reaction of the man who will have to fly the airplane. In general, his attitude was one of intuitive disbelief that an airplane of this type could be superior to something higher and bigger and faster. There was the clear intuitive preference of the operating officer for an airplane just as big and high and fast as he can get. (Quoted in Collins, 2002, p. 202)

Though the audience was far from enthusiastic, the briefings still generated two kinds of responses: the Senior Officers Board, intrigued by the possibilities of systems analysis, initially viewed the Bombing Study with cautious optimism. LeMay and the AMC on the other hand questioned the study at its core and tried to challenge its authority. The first position is exemplified by the Deputy Chief of Staff/Operations position on the study that was prepared before the SOB meeting in April 1950. In it, it is argued that:

although R-173 affords a valuable contribution to military thinking, the inadequacy of the basic assumptions furnished by the Air Force is such that

the RAND ‘optimum aircraft’ will not meet all Air Force bomber needs for the period 1956-60.¹⁴²

Yet it urged “a new study, or an extension of the present one, should be initiated to provide specific guidance for Air Force planning and procurement during the period”. Acknowledging the study’s “lucid and scientific presentation”, the memorandum accepted the conclusion *within* the assumptions set by RAND as valid, and mentioned that “*as an academic study of a restricted nature* it provides a valuable contribution to comparative methodology and military philosophy.”¹⁴³ Thus, the memorandum did not claim that the study’s assumptions were wrong per se, but that they were not comprehensive enough, and that they became outdated due to recent events, such as the development of the hydrogen bomb. Therefore, the memo maintained, the Bombing Study offered merely a “philosophical approach to the problem” instead of “specific guidance for planning and procurement”.¹⁴⁴ Once again, the opposition between military and scientific thinking resurfaced.

Edward Quade, Paxson’s deputy, painted a somewhat similar picture in his Oral History interview: “When the study was completed and presented to the Air Force, the Air Force liked it. They didn’t like the answer but they liked the study. They thought the answer was absurd. It didn’t fit their instincts”.¹⁴⁵ So the scientific rigor of RAND’s systems analysis was contrasted with the instincts (irrationality) of military officers. Quade further elaborated what the Air Force liked about the study:

I think they liked the detailed method that he went about it. You know, the attention to everything that [Paxson] took all the factors into consideration, that he got the best information that was available from whatever sources he used (...) After the first study was done, why we had people writing articles

¹⁴² Memorandum for General Anderson Subject: Project RAND Study R-173, Strategic Bombing Analysis. 13 April 1950. NARA II RG 341, ENTRY 335, Box 474, Folder OPD 385 (RAND), Sec 1.

¹⁴³ Ibid. Emphasis added.

¹⁴⁴ Ibid.

¹⁴⁵ ROHP interview with Edward Quade.

that every decision made by the Department of Defense ought to be made as the result of systems analysis. The airplane companies (...) took up this method; in order to sell their weapons to the Department of Defense and the Air Force, they did a systems analysis with all of those. Everybody liked the method, really.¹⁴⁶

However, immediate reactions were not at all so enthusiastic. Air Force concerns can be summarized in the following eight points, many of which counted as trivial knowledge for experienced Air Force officers. First, RAND did not recommend a jet engine plane because Paxson assumed that jet engines would either be too costly, or just too heavy for long range bombing. This assumption was obviated by the development of smaller bombs. Second, the RAND team thought in terms of a single wave of attack, thus, on the one hand, it did not count with the so-called salvage value of planes (if planes can be salvaged, cheap planes lose some of their merit), and on the other hand, it clashed with existing war plans that called for a series of attacks on the Soviet Union. A third concern, raised by the AMC, was that RAND did not utilize up-to-date data on aircraft design, engines and electronic equipment. A fourth problem was that the study did not take into account the hydrogen bomb program, even though RAND knew of its developments. Fifth, the Air Force War Plans Division criticized Paxson for the implicit requirement of redesigning US basing policy (launching bombers from the continental US).¹⁴⁷ Sixth, the life of pilots as a conservable resource was not factored in the analysis, upsetting Air Force commanders, many of whom fought in WWII as pilots. Seventh, Paxson's model did not deal with first strikes, yet this was not a methodological decision. When asked, he said that: "thorny political or ethical issues might be amenable to mathematical treatment and thereby be depoliticized or deferred to another day" (Collins, 2002, p. 178). And last but not least, the study challenged Air Force interests with its fixed

¹⁴⁶ ROHP interview with Edward Quade.

¹⁴⁷ Ironically, RAND's most successful systems analysis, the Basing Study (A. Wohlstetter et al., 1953), dealt with the very same issue.

budget assumption and the recommendation of a non-jet engine plane. A fixed budget was nonsensical to officers eager to expand the young service's possibilities, and, concomitantly, abandoning the jet engine was even more antithetical to Air Force thinking and well-established interests.

Encountering opposition, Paxson tried to refine the study, seeking to show the benefits of the study's policy recommendation, i.e. a cheaper, more effective bombing system solution. Between April and June 1950, RAND did attempt to widen the scope of the study to include multiple attack waves, but the new complexities were not easy to integrate into the framework, thus no definite answers could be given. Meanwhile reviews requested by the SOB started coming in. Industry reviews were generally positive, but often differed in their conclusions about likely technological developments. The Air University report on the other hand was more critical, concluding that "the airplanes recommended by RAND are purely 'budget' airplanes and represent dangerous compromises of quality to obtain quantity" (Quoted in May, 1998, p. 59). They "belong[ed] to the sub-sonic era", and would not stand a chance against Soviet defenses, leading to high losses, lowered morale and needless deaths. This point reflects the Air Force reasoning for protection through speed: "High speed should therefore be the master goal, at whatever cost. We must not discount the fact that crews are more valuable than machines. People are not expendable like machines." In conclusion, the university team was "definitely against proceeding with the development of the current RAND 'best airplane'".

By the June meeting of the SOB, criticisms sank in, and the board made no further efforts to reconcile the study with the critical voices. Collins (2002, p. 207) notes that critics used tactics analogous to traditional patterns of scientific critique when they questioned the

organizing assumptions, the data, as well as the method. This kind of critique illuminated the problems in Paxson's work: complexity, unpredictability, and self-imposed simplifications.

After heated criticism in early 1950, management appointed the so-called RAND offense team to correct the mistakes of R-173. In spring 1950, when the original was still under review, they assembled an ad hoc committee to begin planning a follow-up project, the Dynamic Bombing Systems Committee, incorporating critical points raised by RAND's peers (May, 1998, p. 63). Finally, the project was renamed and a final report entitled "Comparison of Airplane Systems for Strategic Bombing: Multiple Strike Study (R-208)" was issued in September 1950. Not aiming to redesign the Bombing study, the report should more be seen as a defensive clarification of its conclusions. In order not to further anger the Air Force, RAND analysts decided not to single out an airplane, but present three possible bombing system options: 1) a four-engine turboprop plane without refueling; 2) a six-engine jet once refueled, and 3) the same plane twice refueled¹⁴⁸. Naturally, the Air Force adopted the jet-engine option and RAND's next big systems analysis, the Basing Study dealt with the issue of refueling. The study finally succumbed to Air Force requirements.

5.7. A battle lost

The story of the bombing study, as the initial application of defense rationalism to strategic problems, shows just how different the scientific and military traditions were. Engaging the Air Force head on, as if its officers were Ivy League faculty, showed the limits of pure scientific reasoning, both as a source of policy-relevant research and as a source of persuasion. Even though science carried authority in policy debates—as the rationale behind

¹⁴⁸ May (1998) aptly notes the unfortunate ordering of the alternatives.

civilian-military cooperative frameworks attest—on its own it was not suitable for persuading the military. Without inter-tradition or inter-discursive links, the text did not resonate with its audience.

Meanwhile, the bombing study's recommendations showed defense rationalist neglect of crucial elements of the policy context, most notably the Air Force's organizational tradition (the individual bravery and value of pilots), and the interservice rivalry. As the popular anecdote about SAC commander General LeMay illustrates, the Air Force saw the Navy as its enemy—the Soviets were merely its adversary. The whole dilemma behind the study's commission was to make sense of the Cold War environment within the Air Force tradition, and promoting both the resulting master frame, and its technological manifestation (the B-52), against that of the Navy. With defense rationalists failing to realize the importance of this antagonism, the recommendations not only ran counter to traditions, but actually would have weakened Air Force positions.

Nevertheless, RAND's management showed some basic level of awareness of these issues during dissemination, even though the analysts themselves did not. It is partly due to their efforts that Project Air Force at RAND could continue, despite the universal hatred for its first major input. RAND did learn from its mistakes, and so did defense rationalists now eager to make their methods more flexible and responsive, and to make their language easier to translate. The other major reason behind RAND's continued existence was that the Air Force could resolve its sensemaking/legitimacy dilemma through its own tradition: Sunday Punch strategies could be framed as the operational translation of containment, and these plans in turn could be used to argue for procurement plans and inflated budgets. This discursive

strategy was further aided by the outbreak of the Korean War that eased the intensity of interservice budget debates.

Thus, despite its failure, systems analysis lived on and served as the method behind one of RAND's major success stories, the basing/vulnerability study which I discuss in the next chapter.

Chapter 6: “Bases”

I have regarded the most important phase of any inquiry as being in the framing of the question.

/Albert Wohlstetter, RAND analyst/¹⁴⁹

6.1. From *Our* weapon to *The* weapon: The vulnerability turn (1953-1959)

In 1949 the Soviet Union successfully developed nuclear capabilities, shocking American decision-makers. By the early 1950s, the fear of a gradual loss of nuclear superiority had mounted considerably in US policy circles. This fear was reinforced by intelligence estimates that claimed the Soviet Union was developing “the super”, i.e. the hydrogen bomb. Meanwhile, the Korean War all too obviously showed the limits of containment as national security policy. The US had suffered heavy losses in a conventional conflict, and it did so seemingly in vain: despite its nuclear stockpile, the United States was unable to deter North Korea from attacking its neighbor and Communist China from intervening in the conflict.

Therefore the change in the presidency in 1953 needed to reflect these dilemmas vis-à-vis the US’ global position, and its core policy: containment. The political limits and costs of conventional engagement in faraway conflicts forced President Eisenhower to increase reliance on nuclear weapons—including the development of the H-bomb—and shift declaratory policy towards deterrence through massive retaliation.¹⁵⁰ Though nuclear weapons gained a more pronounced role in declaratory policy and military thinking, operational plans continued to be constructed along tried WWII tenets that favored aggressive postures and strategies, and were anchored in the belief that the US would set the pace and the nature of

¹⁴⁹ ROHP interview with Albert Wohlstetter. Date: July 29, 1987. Interviewers: Martin Collins and Joseph Tatarewicz. Auspices: RAND. Smithsonian Archives, RAND history project Interviews, Box 10.

¹⁵⁰ First announced by Secretary of State John Foster Dulles in a January 12, 1954 speech (Dulles, 1954b).

superpower confrontation. Nuclear deterrence as the essence of nuclear strategy only became the subject of open political contention in the late 1950s, after the shock of Sputnik's launch—i.e. the clear demonstration of Soviet intercontinental missile capabilities and US vulnerabilities—and as presidential candidate John F. Kennedy took the resulting “missile gap” hysteria as the primary trope of his campaign. The end of the 1950s is the period when the vulnerability narrative became central to the politics of nuclear conflict: from then on until the end of the Cold War all future technologies, such as anti-ballistic missiles or MIRV-ed warheads, came to be interpreted through this particular narrative. In terms of the history of deterrence, this shift from nuclear monopoly to an age of parity and mutual vulnerability is sometimes referred to as the vulnerability turn¹⁵¹, referring to the widespread sentiment that the Soviet Union had become capable of attacking the continental US. The vulnerability turn should therefore be treated as a political-military dilemma, since it carried huge potential political costs for both the Executive and the military.

This narrative about a US vulnerable to nuclear annihilation eventually empowered critics of Eisenhower's policy of massive retaliation—and those of the Air Force, the service that was supposed to carry it out—and eventually forced a shift in policies, eventually leading to the Air Force's first major, multi-faceted dilemma in the late 1950s, which I will discuss in further detail in the third case study. Though the vulnerability of US forces and cities to a (thermo)nuclear-capable Soviet Air Force only became a central element of political discourse at the end of the decade, vulnerability had already entered the military macro discourse in 1953 through one of RAND's landmark studies, the so-called basing (or vulnerability) study,

¹⁵¹ Emanuel Adler in his 1992 article lists the following points as major events of this period of the early Cold War: 1) RAND's Air Force commissioned study on vulnerability in the early years of the decade; 2) the Killian Committee's 1955 report, “Meeting the Threat of Surprise Attack”; 3) the Soviet ICBM tests in 1957; 4) the launch of Sputnik into orbit; and finally, 5) the Gaither Committee report in 1957. Adler argues that these elements of the vulnerability turn enabled epistemic community of arms control specialists to gain political influence which culminated in the ABM negotiations (Adler, 1992, pp. 116–124).

which pointed out the gross vulnerability of Air Force bases, and offered a number of solutions to remedy it.

In addition, the study, entitled “The Selection of Strategic Air Bases (R-244-S)”, and its extended version, “Selection and Use of Strategic Air Bases (R-266)”, are widely regarded as key documents of the history of deterrence theory for their contribution to the idea of second strike deterrence (i.e. retaining the ability to retaliate after a surprise attack). As analyst Edward Quade remarked, the studies had “an outstanding example of an actual analysis, one that had a significant impact on United States strategic policy” (Quade, 1964b). Quade’s words reflect a widespread view of the study as one that not only propelled deterrence theory forward, but also led to a reform of actual military policy and thinking. The project that culminated in the basing study bore the characteristics of a big RAND systems analysis and involved a variety of talents from the think tank. Like many RAND analyses, its history is closely tied to its main researcher, Albert Wohlstetter.¹⁵²

The Wohlstetter study’s timing, reception and continued availability (via e.g. briefings, lectures, multiple iterations and follow-up studies) signals the Air Force’s awareness of the vulnerability of its posture to growing Soviet Air power. Yet it is curious why this problem was not featured more dominantly in military policy and presidential politics. As I will show in this chapter, the basing study clearly pointed out the gross vulnerability of Air Force bases in overseas areas, but also in the continental United States.

¹⁵² Wohlstetter’s influence and relevance to the history of deterrence in the US is visible everywhere in the relevant literature. He was invited to the Gaither Committee, as well as the Geneva conventions on reducing the dangers of a surprise attack in 1958 where he acted as deputy chief scientist. He befriended Thomas Schelling at RAND and began drafting “A Delicate Balance of Terror”, which in turn was used by Theodore Sorenson to prepare Kennedy’s “missile gap” speeches. A social, smart, and suave person, he is often equated with the quintessential strategist. However, his person was also the source of controversies within RAND as some, including RAND president Collbohm, claimed that Wohlstetter took most of the credit for a project involving a multitude of analysts. Therefore, despite his magnetic personality, the story of vulnerability should not be that of Albert Wohlstetter.

The idea that SAC was vulnerable and that this vulnerability provided an incentive for the Soviet Union to launch a surprise attack seemed overly persuasive to RAND's Air Force audience: the study summarizing these findings was very well received, and vulnerability became a central—albeit well-hidden—element of Air Force planning for the 1950s. Yet, despite the acceptance of the idea, RAND's specific policy suggestions that aimed at mitigating said vulnerability were only partially followed, and were implemented en masse only in the late 1950s with the advent of the counterforce debate (see Ch. 7).¹⁵³ Showing how the construction and dissemination of the study incorporated elements of persuasion, and why persuasiveness does not necessarily imply policy acceptance, but may only help the idea enter the macro-discourse, are the contributions of this case study to the general argument of this dissertation. In addition, I will also suggest that the case study be read together with the third case, the counterforce debate, where the vulnerability narrative and its proposed theoretical/policy solution eventually came to dominate the discourse.

The chapter's structure follows the previous template: after a brief overview of contemporary presidential and Air Force policies, I will introduce the study, emphasizing the conscious choices made during its conception. Then I will move onto the discussion of the study's dissemination and reception within the Air Force, concluding with an analysis of the study's history as a manifestation of contextual suasion.

¹⁵³ Claiming that eventually implemented measures to decrease survivability of forces were the result of the basing project, Randites often list the basing/vulnerability study as one that “truly had a measurable effect” in terms of policy influence. By offering the Air Force solutions to the basing problem (air-to-air refueling instead of overseas bases), it is said to have “saved the Air Force over one billion dollars, and that study cost the Air Force a few hundred thousand” (ROHP interview with Frank Collbohm).

6.2. Exploring the political context: Nuclear politics in the early 1950s

The period of the basing study's birth was marked by the aforementioned transition between the second Truman and first Eisenhower presidencies in 1952-53. With Eisenhower's inauguration, the role of the nuclear weapon—and consequently the mission of the services that were to use it—was altered: whereas Truman saw the bomb as a weapon of last resort, Eisenhower saw it as a weapon of first resort, as the backbone of US *defenses* (Rosenberg, 1983b). Defense in turn became equated exclusively with nuclear deterrence-by-punishment through the policy of “massive retaliation” under his New Look policy, essentially conflating nuclear deterrence to the level of national security strategy. As discussed earlier, the Truman administration had already relied on a de facto policy of massive retaliation: in case of Soviet aggression, the United States would have launched a massive bombing campaign against the Communist bloc using both conventional and nuclear weapons. Nevertheless, this policy was never publicly stated. What was made public, however, was containment: the political and military quarantine of global communism in fear of a domino effect.

When it came to the Soviet military threat, Truman's 1950 National Security Council report, NSC-68, identified 1954 as the year of “maximum danger”, when “the delivery of 100 atomic bombs on targets in the United States would seriously damage [the] country,” (Gaddis & Nitze, 1980; National Security Council, 1975). Estimates of Soviet nuclear capabilities throughout the early 1950s further reinforced the perceived vulnerability of the US to an attack (with increasing total megatonnage), but confidence still remained with high deterrence (avoiding an attack) rather than low vulnerability (surviving an attack). The strange logic behind this forced separation of the two concepts was that low vulnerability was not seen as a

possible source of deterrence, *because* US continental defenses were seen as inadequate. Once again, capabilities limited long-term strategic thinking.

In order to counteract the negative effects of this growing Soviet strength, Truman authorized the construction of an early warning system in December 1952. In addition, he set up a special subcommittee of the NSC to “evaluate the net capabilities of the Soviet Union to inflict direct injury on the United States, up to July 1, 1955” (Rosenberg, 1983b, p. 193). The Net Evaluation Subcommittee (NESC) reported to the NSC on May 18, 1953—already under Eisenhower’s presidency—and issued a study in a June 1953 which stated that a continental defense programs then underway were “not adequate either to prevent, neutralize, or seriously deter the military or covert attacks which the USSR is capable of launching (quoted in Rosenberg, 1983b, p. 193). The findings of the group were peculiar in a number of ways. First, they represented a mirror image of the then prevalent targeting doctrine, i.e. the mass scale bombing of enemy cities. This meant that the American side feared a massive Soviet attack on US *cities*, not on SAC forces and bases. Second, in order to lessen vulnerability, they recommended expanding nuclear delivery capabilities to match those of the Soviets—a sign of an early *numerical* gap mindset, predating both the bomber gap and missile gap controversies.

These elements of Truman’s mature nuclear policies affected Eisenhower’s thinking. Upon entering office, Eisenhower was the first president to be confronted with a wide selection of weapons as well as carriers, with nuclear plenty (i.e. a continuous and expanding supply of fissile materials), and a growingly powerful military establishment. His first two actions as President were continuing Truman’s policies in developing the H-bomb and modernizing and expanding SAC’s bomber fleet. His New Look, announced in his 7 January

1954 State of the Union Address (Eisenhower, 1954), was anchored in an extensive reliance on nuclear weapons—and it thereby further strengthened SAC’s position.

New Look was very much a product of the Korean War. Already in the 1952 presidential campaign the former general made commitments to a new foreign policy, “a policy of boldness”, one of “genuine novelty” that would abandon the “negative, futile and immoral policy of ‘containment’” (quoted in Wells, 1981, pp. 31–32). In a nutshell, Eisenhower’s nuclear policy had three elements. First, the position that nuclear weapons were cheap and usable weapons, they were “available for use as other munitions” (quoted in Bundy, 1988, p. 246). Second, the policy was declared through the concept of massive retaliation, i.e. the publicized willingness to use nuclear weapons in the hopes that it would deter aggression. Finally, the policy required that all military branches reflected this willingness to use in a wide variety of conflict situations, ranging from general to limited war.¹⁵⁴

A prior policy document, NSC 162/2 set the guidelines for operational policy under New Look, along the above three major elements of the policy (NSC 1953). As both Bundy (1988) and Brands (1989) note, NSC 162/2 had more to do with economics than military strategy, and essentially framed interservice relations within the military. Abhorred by the costs of conventional war in Korea¹⁵⁵, President Eisenhower issued a series of budget cuts and, as I mentioned, shifted the defense effort towards nuclear deterrence as a usable, cheap alternative to maintaining a conventional military. This shift threatened with a renewal of the interservice rivalry, given that a reliance on strategic nuclear deterrence traditionally favored the Air Force. However, open conflict did not erupt, since New Look could be interpreted

¹⁵⁴ See e.g. Eisenhower, 1963; Roman, 1995; Snyder, 1952; Wells, 1981.

¹⁵⁵ The military budget at the peak of the Korean War consumed more than 70% of the federal budget.

favorably towards both the Air Force and the Navy. When presenting New Look in 1954, Admiral Radford, Chairman of the Joint Chiefs, summarized the benefits of nuclear weapons and the task of each Service in the following way:

Today, atomic weapons have virtually achieved conventional status within our Armed Forces. It is possible to procure an explosive power in nuclear weapons, for less than one-tenth of the cost of procurement of *all* conventional bombs and shells expended by the allied forces in World War II. Each military Service is capable of putting this weapon to military use. Therefore, each Service has a tremendous responsibility for living up to its own assertions, and to expectations for a still greater and more powerful degree of combat readiness.¹⁵⁶

Since the new policy also required all services to look for application for nuclear weapons, the rivalry was somewhat muted: instead of criticizing New Look/NSC-162, the Navy began expanding its nuclear capabilities and supported massive retaliation throughout Eisenhower's first presidency¹⁵⁷, whereas the Army, struggling with finding the proper niche for nuclear weapons, suffered most of the budget losses.¹⁵⁸

The Air Force's position was further reinforced as the executor of New Look/massive retaliation, which translated to the same policies that had been central to the Air Force tradition since World War II. At the same time, however, increasing demand for combat readiness and cost-effectiveness also stretched the boundaries of the Service's capabilities. In this environment, potential vulnerabilities of the Strategic Air Command foreshadowed dilemmas that could be conceived as both opportunities and threats to organizational

¹⁵⁶ Address by Admiral Arthur Radford Chairman of the Joint Chiefs of Staff before the Combined National War College and Industrial College of the Armed Forces Washington DC, 25 January 1954, 09.00 EST. Library of Congress, Manuscript Division, Nathan E. Twining papers, Box 72, Folder: 1954 Top Secret Material. Original emphasis.

¹⁵⁷ So-called "targets of naval interest" in targeting plans were allowed by the 1948 Key West Agreement and were never formally listed in atomic annexes to joint war plans. Carrier task forces retained the right to engage targets as the tactical situation demanded. Though joint coordination centers were established in 1952 to deal with possible target duplication, this arrangement never satisfied SAC and was a point of constant conflict (Rosenberg & Moore, 1981, fn. 13).

¹⁵⁸ An initial three-year budget plan assigned 47% of all defense appropriations to the Air Force, 29% to the Navy and 22% to the Army (Rosenberg, 1983b, p. 190).

legitimacy. Vulnerability, when managed correctly, could lead to an increase in the Service's budget—with the Air Force equating the security of its forces with the security of the United States—but if “undetected” (i.e. problematized first by someone else) or “mismanaged”, it could lead to renewed attack from the Navy claiming that the Air Force is a clueless, vulnerable waste of resources.¹⁵⁹

On the political side, vulnerability was inseparable from the question of credibility. As the US lacked physical defense against an enemy armed with hydrogen bombs, Eisenhower had to rely on psychological defense, i.e. the threat of nuclear punishment. But throughout the decade, massive retaliation came repeatedly under attack on account of its credibility to both the Soviets—would the US risk a mutual exchange of nuclear blows?—and US allies—would the US sacrifice New York for London or Paris?¹⁶⁰ Despite its problems, Eisenhower stuck to massive retaliation throughout his two terms. For the purposes of this chapter, massive retaliation—with credibility as its central problem—should be considered as the political context of Air Force policies, as well as RAND research activities. It should also be noted that the underlying credibility dilemma was a theoretical one, and it offered an excellent entry point for defense rationalism.

¹⁵⁹ It is important to emphasize that the Navy did not yet have an alternative weapon system that could mitigate vulnerability at the time, barring its leaders from truly constructive criticism. This only arrived with Polaris ballistic missile-capable submarines in the late 1950s.

¹⁶⁰ Some accounts offer a more nuanced picture. Wells (1981, pp. 34–38) for example argues that massive retaliation is often misinterpreted as a non-credible bluff due to an uncritical reading of critiques. Rather, he maintains, it was a rhetorical tool that served two purposes: it gave a catchy label to the new Republican policy and could be used as a rhetorical tool to justify defense budget cuts also vis-à-vis the military. Despite its unquestionable usefulness in this regard, Eisenhower could never really make massive retaliation/NSC 162/2 accepted due to the credibility critique that culminated in the missile gap hysteria in the late 1950s.

6.3. “Incipient Power”: Air Force policies prior to the vulnerability study

In order to make the psychological deterrent credible, there was a need for a persuasive deterrent force. SAC was its obvious embodiment, so New Look greatly reinforced the Command's bureaucratic position. As Bundy (1988, p. 247) reports, when drafting New Look, Eisenhower personally made sure the SAC force was not listed as *a* major deterrent but as *the* major deterrent. The new national security policy not only strengthened SAC's position vis-à-vis the Navy, but also vis-à-vis the Joint Chiefs and the Air Staff. From 1951 on, SAC did not submit annually updated Basic War Plans to the Joint Chiefs, arguing that details of operational planning should be closely guarded. JCS oversight thus became a mere formality, and by 1955 as SAC achieved virtual control over targeting as well with its own target list (Rosenberg & Moore, 1981, p. 10).

Since strategic bombing was the key component of US national defense policy, as the commander of SAC, General LeMay made sure that the strategic force was involved in all kinds of missions, including hitting counterforce objectives and retarding Soviet forces in Europe. Belief in SAC's role as the nation's primary offensive weapon remained uncontested. As General LeMay remarked in his memoirs: “Our job in SAC was not to promulgate a national policy or an international one. Our job was to produce. And we produced. We put America in that situation of *incipient power* which she occupied at the time” (LeMay & Kantor, 1965, p. 482, emphasis added). Yet this reinforced primacy also meant that SAC gradually became the target for all criticism leveled against massive retaliation. Even though the Navy accepted the status quo under New Look, the interservice truce was fragile, and the rival remained opportunistic. This central position and visibility in turn increased the

importance of reacting quickly and decisively to dilemmas arising with Air Force policies and forces, shifting some of the burden onto RAND's researchers.

Plans at the time still called for a single blow—a Sunday Punch—that would leave Russia “a smoking, radiating ruin at the end of two hours” (Rosenberg & Moore, 1981, p. 82). But when and under what conditions these plans would be carried out was still a subject of some intense debate. Increasing fears of nuclear parity namely also led to—mostly implicit and/or classified—discussions of preventive war as an alternative to deterrence.¹⁶¹ But Eisenhower was vocally against prevention, and he told the NSC in December 1954: “If war comes, the other fellow must have started it” (quoted in Bundy, 1988, p. 253). But Eisenhower's opposition to prevention was not a moral one. It reflected his belief that an arms race would seriously damage the US economy,¹⁶² and that the development of the H-bomb made general nuclear war something to be avoided (yet not unthinkable). The essence of deterrence for Eisenhower was marginal superiority—or “sufficiency”—and not the ability to cripple the Soviet Union in a preventive attack (Rosenberg, 1983b, p. 33). What makes this debate crucial for the purposes of this chapter is that the rejection of prevention also implied that the US (i.e. the Air Force) would have to prepare for a potential Soviet strike (both in terms of defense and preemptive strategies).¹⁶³ Thus rejecting prevention therefore did not mean rejecting preemption, i.e. striking before the Soviet strike, so the belief that SAC could preempt became a central tenet of Air Force doctrine.

¹⁶¹ For a detailed discussion of thinking on preventive nuclear war in the United States see Buhite & Hamel, 1990; Rosenberg & Moore, 1981; Trachtenberg, 1988.

¹⁶² As Buhite and Hamel (1990, p. 383) show, US war plans of the 1950s consistently demanded more bombs than existed in the US arsenal. This not only fueled the interservice budget war, but also meant that any preventive strike would need to rely on conventional forces, entailing a protracted, expensive war.

¹⁶³ The dismissal of *prevention* did by no means mean that *preemption* was ruled out as well. Clearly rejecting the assumption that nuclear war was unthinkable, Eisenhower constantly sought to show his commitment to the use of nuclear weapons, not ruling out preempting a Russian attack.

General LeMay himself was a devout supporter of preemption, arguing that “if the US is pushed into a corner far enough we would not hesitate to strike first” (quoted in Rosenberg, 1983b, p. 199). The basis for his belief was the assumption that a Soviet attack would take weeks to launch, leaving ample time for a US strike; and even if the Soviets would strike first, it would take them another thirty days to deliver all their bombs. This assumption by definition rendered considerations of vulnerability somewhat mute.¹⁶⁴ Given that LeMay was a key figure to Air Force nuclear policies, and the primary shaper of SAC’s organizational position, his views about vulnerability and preemption should not be dismissed.¹⁶⁵ What is crucial about this preemptive mindset, essentially a continuation of the World War II frame, is that the plans it spurred always assumed that the US would have the initiative, so the use of nuclear weapons would always rest with the Americans, making the question of preemption a secondary, theoretical issue, shifting attention to targeting. The H-bomb and general nuclear plenty of the Eisenhower era further reinforced this element of the tradition. It is therefore not surprising that potential vulnerabilities of the deterrent were not even problematized, especially given rather pessimistic estimates about the quality of Russian defenses.¹⁶⁶

¹⁶⁴ Here it is important to note that overseas bases that were supposed to be used for an air offensive, like the ones in the United Kingdom, constituted a separate category for the Air Force. A report in February 1950 mentioned that bases in Great Britain are vulnerable and might be “‘Pearl Harbored’ at the outset of hostilities” (quoted in Kaplan, 1983, p. 93). So LeMay was probably aware of the vulnerability of overseas bases, which is partly the reason—apart from the Air Force tradition’s focus on cutting edge weapons—why he pushed for an intercontinental capability, i.e. mid-air refueling in the short run, and intercontinental bombers in the long run.

¹⁶⁵ LeMay in a later book he endorsed first-strike capability as “absolutely necessary” (Betts, 1986, pp. 19–20). Perhaps the most controversial claim he made about preemption was during a reported encounter between LeMay and Robert Sprague, deputy head of the Gaither Committee in the late 1950s. LeMay allegedly told Sprague that he was not worried about SAC’S vulnerability—a fact by then clearly demonstrated by RAND’s team—because if he received warning of Soviet preparations, he would still “knock the shit out of them before they take off the ground.” When Sprague said that was not national policy, LeMay allegedly responded that he did not care: “It’s my policy. That’s what I’m going to do” (quoted in Kaplan, 1983, pp. 132–134).

¹⁶⁶ As RAND analyst E. S. Quade (1964b, pp. 25–26) recalls, the Soviet Union’s defense against bombers was not highly regarded by many Air Force officers. SAC was recognized as a possible target for the Soviet Air Force but was not considered sufficiently vulnerable to require special protective measures.

Since Air Force policies at the time were not in line with potential vulnerabilities, and a public discussion of these shortcomings would have threatened with a renewal of the interservice rivalry. These two factors framed the initial context for RAND's study. Albert Wohlstetter and his team not only had to communicate their findings to an Air Force convinced of its "incipient power", but also had to navigate the minefield of a potential interservice scandal. RAND could eventually master the situation and appear persuasive vis-à-vis its patron, as the Air Force successfully dealt with the vulnerability dilemma (essentially avoiding a legitimacy crisis) through the instrumental use of RAND ideas.

6.4. Origins of the vulnerability study

RAND's research on vulnerability grew out of earlier research on air defense, and was shaped fundamentally by research on the implications of the H-bomb, with deterrence and war limitation emerging as the central concept of nuclear strategy¹⁶⁷ (Brodie, 1973, p. 394). The research that culminated in the basing study began in May 1951 as the RAND project "The Selection and Use of Strategic Air Bases" when the Air Force—the Air Staff, *not* SAC—addressed a routine request to the think tank for a study about the selection of overseas bases, i.e. airbases established off the continental United States or Zone of the Interior (ZI).¹⁶⁸ The

¹⁶⁷ The Wohlstetter project should not be seen in isolation, but as one of the outputs of the internal RAND debates of the era. Bernard Brodie, the originator of the thermonuclear revolution thesis, for instance, said in a lecture in 1952 that precautions should be taken to reduce "the almost comic opera vulnerability of our military structure. We can't disperse our cities, but we can certainly disperse the Pentagon and what's in it.(...) Similarly, I can see no reason why all our SAC aircraft should be disposed on something like 16 air fields in the ZI" ("Changing Capabilities and War Objectives" Lecture to the Air War College, 17 April 1952. UCLA Archives, Bernard Brodie Papers, Box 12, Folder 13). What makes the Wohlstetter project special is its use of systems analysis, its treatment of basing as part of a general strategy, and the communication techniques used in its dissemination.

¹⁶⁸ The rationale behind the request was the allocation of the FY 1952 Air Force budget for air-base construction (3.5 billion dollars), almost half of which was planned for overseas base construction. The then current Air Force rule of thumb for basing was quite crude, mainly having to do with minimizing costs for construction and maintenance of individual bases. There was no visible concern for total systems costs, thus the request was

original request for the study included a tentative, simple formulation of the problem: where to put overseas bases (B. L. R. Smith, 1966, p. 199, fn. 4)?

At RAND, the request was deferred to Charlie Hitch, head of the Economics Division. As was usual with any new requests, Hitch first advertised the possibility and approached Albert Wohlstetter. Throughout the spring of 1951, Wohlstetter was the only analyst working on the project, trying to formulate what exactly the problem was. Later he approached Henry Rowen, an economist trained in engineering, Fred Hoffman, another economist, and an aeronautical engineer, Robert J. Lutz, forming the core team for the basing study and most of its subsequent iterations.

Just like other systems analysts at RAND, Wohlstetter thought it was crucial to find the right questions to ask, not just to accept the client's tentative formulation of the problem. As he put it in his ROHP interview,

I have regarded the most important phase of any inquiry as being in the framing of the question. I think that's where you have the greatest difficulty. If you want to try to frame a question which preserves what's important in the problem but also makes it manageable, in some cases it will [need] some simplifications to make it manageable.¹⁶⁹

As I argue in this dissertation, this aspect of systems analysis was often used to reframe core elements of Air Force strategy. Until RAND's methods enjoyed scientific authority, arguments about what strategy should entail could be made on grounds that differed or even contradicted Air Force positions. Naturally, contradicting points needed to be disseminated and argued so that they did not seem so controversial, indeed even seemed commonsensical. The construction and communication of the basing study demonstrates how RAND could

aimed at optimizing location costs for establishing bases, such as climate, local politics or terrain (B. L. R. Smith, 1966, p. 200).

¹⁶⁹ ROHP interview with Albert Wohlstetter.

achieve such a problematic objective with its organizational clout in-tact. Properly setting up the question was the first step.

RAND's flexible mandate in engaging such requests came in handy. Wohlstetter namely found the original question intellectually unstimulating, and realized he could shift the focus from location costs to the question of what the Air Force would do after a surprise attack, what that would mean for bombers and the overall mission? Once in possession of a new research question, his team scaled back the scope of systems analysis from the proportions used in the bombing study to avoid some of the problems Paxson encountered. Rather than trying to find the *optimal* system—and thereby invite Air Force resistance—the team tried to find a compromise between efficiency, cost and performance using means available to the Air Force (B. L. R. Smith, 1966, p. 211).

The crucial methodological mistake of the bombing study that also affected its reception, Wohlstetter thought, was that even though it included a concept of attrition value (the likelihood of successfully destroying the intended target), it counted attrition rates and then ran the surviving planes through the system again (i.e. the remaining planes flying additional sorties). This approach completely disregarded a Soviet strike against US installations. Despite the strategic context in which the bombing study was conceived—no H-bomb, US nuclear superiority, and the corresponding invulnerability thinking on behalf of the Air Force matched by limited Russian stockpiles—the sheer proximity of *overseas* bases to the Soviet Union made this omission debilitating for the argument promoted by the Paxson team.

Wohlstetter reportedly worked under various influences. First, “the von Neumann-Morgenstern mathematical theory of games” was just beginning to spread within RAND

across diverse policy fields (Kaplan, 1983, p. 91). Wohlstetter was exposed to these methods¹⁷⁰, and adopted the logic of games in his so-called opposed systems design¹⁷¹ method, even if not in its mathematical form. With game theory incorporated, Wohlstetter's model could deal with shifts in enemy capabilities better than pure systems analysis, enabling the analyst to look at not only how the location would aid the US in attacking the USSR but also vice versa. When discussing the influence of game theory, historian Andrew May (1998) makes the claim that the new theory facilitated research design and not *actual* analysis: despite the early models being too simplistic for making a complex argument, they were “enlightening” for the theorist. As I will argue, beyond its use in brainstorming, the simplified, textual use of game theory models also enables the “playful” transfer of complex arguments through simple metaphors to various audiences. As metaphor, rational choice/game theory could perform the role within contextual suasion that I discussed in section 3.3.

Simple (*not* simplistic) language permeates the basing study—and its follow-up studies even more so—and is not restricted to the inclusion of games-as-metaphors. In fact, simplicity was a conscious choice from the beginning. As Edward Quade discusses in his *Analysis for Military Decisions*, “no complicated mathematical model featuring an astronomically large number of machine computations was involved” (Quade, 1964b, pp. 62–63). Instead, the focus was on “policymaking, the relevance of the many factors and contingencies affecting the problem [rather] than sophisticated analytical techniques” (ibid.). Simplification was a conscious choice that Randites did not see as detrimental to the substance of their argument. In Quade's words, “when you got down to the real practical

¹⁷⁰ For instance Wohlstetter extensively consulted Kenneth Arrow during his stay at RAND.

¹⁷¹ As Rowen (2009, pp. 95–96) reports, Wohlstetter “sometimes used the term opposed systems to characterize the sort of competitive—and interactive—situation in which one actor (for instance, a government, a military organization or even a nonstate group) may try to do things that at least partially frustrate some key objectives and activities of others—and vice versa. The policy problem, objectives, and alternatives can look quite different when the game, so to speak, is seriously two-sided.”

problem, why, that was ordinary logic. You could usually present the arguments orally without mathematics or with very simple mathematics”.¹⁷² In this respect, simplicity is not only a scientific virtue in the positivist sense (i.e. parsimony), but also a discursive device that facilitates the communication of an argument, as well as its retextualization by audience members.

A second important influence on Wohlstetter was his wife, Roberta. Roberta Wohlstetter also worked at RAND and was researching a book on the Pearl Harbor attack between 1950 and 1957, with a declassified version published in 1962 under the title *Pearl Harbor: Warning and Decision* (R. Wohlstetter, 1962). Roberta’s research on sneak attacks made Wohlstetter aware of the possibility of such an attack occurring under the current status quo, and also provided an obvious historical analogy for conveying this message to his military audience. With sensitivity to enemy attack, coupled with the modeling tools to factor it in the study, Wohlstetter arrived to a simple, yet surprising core finding: the farther a base is from the enemy, the more expensive bombers and their maintenance get. But the closer one brings them to the enemy, the more vulnerable they become to a surprise attack. To put it even more simply through the words of historian Fred Kaplan (1983, p. 91): “when the base is close to the Soviet Union, the Soviet Union is also close to the base”. The fact that the Air Force was oblivious to such a fundamental problem has long been puzzling historians. Yet, as this analysis of the study’s creation and dissemination demonstrates, this ignorance was very much embedded in the organizational tradition that favored knock-out blows by a US firmly holding the initiative.

Organized around the core finding, a first draft of the study was prepared by late Spring 1952. This version already claimed that at least half of SAC could be destroyed in a

¹⁷² ROHP interview with Edward Quade.

surprise attack in the last half of the 1950s. By January 1953, Wohlstetter felt confident enough about results to line up a series of briefings throughout the Air Force bureaucracy. Over the next two months, his team prepared R-244-S, the first published iteration of the study. Fearing negative repercussions for challenging Air Force interests, RAND consciously adopted a new genre of publication: the letter S in the title stood for special staff reports which were not even listed in the RAND index of publications. This enabled RAND (and the Air Force) to limit the reach of the study, given its delicate content.

At this point, I need to note that the arguments forwarded in the completed basing project were published in two separate major reports: the aforementioned, 30-page R-244-S presented in 1953, and the widely circulated, massive, 400-page R-266, published in 1954. These share their content in terms of conclusions and recommendations, yet the form and depth/detail of presentation differs. R-244-S is a brief summary of the study's structure, its findings, methods and recommendations that does not delve into depths of strategy due to limitations of space. The primary importance of this iteration lay in its findings on vulnerability, a shocking revelation for the Air Force, while minute details of the study were conveyed during briefings that did allow broader discussions on the nature of deterrence. Thus even though the report itself was focused on matters of policy alone, Wohlstetter and his team already had their ideas on second strike deterrence fleshed out at the time of R-244-S's completion. Meanwhile, R-266 can be seen as the culmination (and complete textualization) of the project, a massive study that discussed the above elements in-depth, and also went into explorations of the findings' strategic implications. When analyzing the arguments of the *project* as a whole, I quote both versions for illustration. Keeping chronological order, during the discussion of the study's reception within the Air Force, I always refer to R-244-S. R-266 on the other hand had much wider implications for deterrence theory and systems analysis—

partly due to its wider circulation. I will deal with these implications and the further role the underlying idea played in the policy discourse after the discussion of R-244-S's reception. In sections that deal with the story of the project after the publication of R-266, I use the word "study" to refer to both iterations as a single product.

6.5. Vulnerability uncovered: R-244-S

The object of the basing study was to provide an analysis of how to select locations and how to use air bases for SAC for the 1956-1961 period. Then current SAC policies counted on an eight hour warning for overseas bases and on launching a preemptive strike *before* receiving the first Soviet blow. The previously discussed underlying assumption that the US would always have the initiative did not allow Air Force commanders to truly perceive nuclear war *strategically* as a two player game, but rather as a logistics exercise of a single player delivering bombs to the Soviet Union (cf. Paxson's formulation of the bombing problem). This attitude in turn underplayed the importance of Russian offensive capabilities as Air Force commissioned non-RAND studies rather dealt with Soviet defenses (e.g. the bombing study). Early on in the text, Wohlstetter clearly announced how he planned to diverge from this kind of thinking, arguing that "increasing Russian capability compels examination of [the base system] (...) in the context of a two-sided atomic war in which the enemy attacks SAC while it is performing its mission"¹⁷³ (A. Wohlstetter, Hoffman, Lutz, & Rowen, 1954, p. vi), with

¹⁷³ The study rested on two propositions. First, that vulnerability constitutes a provocation for the enemy, and second, that the US and the USSR were engaged in an undeclared war, with Western Europe as one of the stakes. Crucially, the study did not problematize Soviet motives (cf. Cold War orthodoxy). As Green (1968, p. 313) notes "RAND's work strengthens the policy-makers' intuitions about the 'enemy', which become in turn the grounding for other RAND work (...) in the field of military strategy." Cold War orthodoxy established identities, interests and familiarity with "business-as-usual" superpower politics through its overarching grammar. Yet for this very reason, it also masked the problem of assigning endogenous preferences to the Soviet Union.

such attacks “well within enemy capabilities” (Ibid., p. 3). Since enemy attacks could thus affect SAC’s mission, for the Wohlstetter team, offense and defense were inseparable notions from the very beginning.

The primary dilemma of the study was quite simple from a logistics point-of-view: while considerations of politics (domestic and international) as well as logistics and vulnerability suggested pulling bases way back, the high cost of range—both in terms of truly intercontinental bombers and tankers—suggested the opposite. The finding that refueling bases were the best way to go stemmed from a systems analysis that asked the Paxson-esque questions: “Which systems destroys a given number of targets cheaper? For a fixed budget, which system destroys more targets?”¹⁷⁴ Yet Wohlstetter did not compare bombers—a sensitive issue, as the previous case study showed—but different basing systems, with also including his own basing scenarios. In the two iterations of the study, four alternative basing systems were analyzed:

1. Bombers based on intermediate overseas operating bases during wartime;
2. United States-based bombers operating intercontinentally with the help of tankers;
3. A system of US-based bombers operating intercontinentally with the help of ground-refueling in overseas staging areas. (*The RAND team’s favored option*)
4. The then programmed system which was a “‘mixed’ case involving elements of each of the [other] three types: tankers, staging areas, and primary bases both in the United States and overseas. (A. Wohlstetter et al., 1953, p. 2)

The four systems were assessed along a complex set of variables which can be simplified along two joint, conflicting effects: logistics costs and ease of penetrating Soviet defenses

¹⁷⁴ R-244-S only suggested an optimal basing system, not a particular bomber (cf. bombing study) leaving the B-70 program unaffected, thereby avoiding the major point of contention between the Air Force and the Paxson team.

suggested keeping bases close to the Soviet Union, whereas proximity to source of supply and reduced vulnerability implied a US-based system.

Surprisingly for members of the research team, the Air Force's programmed system proved to be decisively inferior: due to its extreme vulnerabilities, already in 1956 the enemy could have destroyed almost all of SAC's forces on the ground.¹⁷⁵ Thinking in terms of post-attack destructive power, this finding immediately questioned the feasibility of the Air Force mission. If the enemy could seriously hamper SAC's retaliatory capability, then the command was simply not capable of fulfilling its mission under a very likely war scenario. In addition, the solution was also problematic and difficult. As R-266's summary reads:

It is clear that consideration of vulnerability alone dictates operations from bases as far from the sources of enemy striking power as possible. However, vulnerability does not lessen continuously with increasing distance from enemy borders. Edging away does not help. It is only when bases of operation have been moved well within the radar network of the ZI that a significant and reliable reduction in vulnerability occurs. But if any component of bombing system is to be left forward, it has been shown that a system which leaves the refueling function forward is (...) vulnerable. (A. Wohlstetter et al., 1954, p. 33)

But criticism was not reserved to the planned system. With the second alternative, aerial refueling (the system favored by LeMay), it was shown that, though providing lower vulnerability, high costs would drastically decrease destructive capability, again jeopardizing the Air Force's mission.¹⁷⁶ Ground refueling in overseas staging areas in turn was found to be the best system because it was relatively invulnerable to enemy attack either before or after an

¹⁷⁵ Kaplan offers an interesting anecdote on the evaluation of the then current basing system. When Wohlstetter showed an initial version of the study to fellow strategist Herman Kahn, Kahn was skeptical of the model used to represent the SAC-preferred system and said: "Albert, this programmed system that you've demolished, is a straw man." To which Wohlstetter replied, "Herman, that *is* the system that SAC has programmed" (quoted in Kaplan, 1983, p. 101).

¹⁷⁶ It is important to emphasize that difference in costs was measured in gross difference. Despite appearing less vulnerable than forward basing, the aforementioned costs involved in aerial refueling drastically reduced the systems "bang per buck" ratio. This methodological detail was often not well understood by Wohlstetter's audience in the Air Force.

enemy first strike, as US bombers would only be on the ground for a limited amount of time before and after striking their targets. In addition, routes would be varied so that the enemy would not know which bases the bombers would use, and since these would be intermediate bases, they would not need a large construction effort with high costs that are necessary for an operating base.

The study summarized its conclusions in a handful of points. First, the unmodified, current overseas basing system would become extremely vulnerable by 1956. Second, vulnerability could be decreased through a number of cost-effective measures, even though invulnerability would remain an unattainable goal. However, the study emphasized that no one single method would be sufficient; instead, a combination was required. Third, the best combination of such measures would involve the absence of critically vulnerable elements from bases at the time of the attack. This basically meant a quick evacuation and irregular landing times scheme on overseas bases. Fourth, defenses that left bombers at the bases during the attack very much depended on enemy capabilities, such as bomb yields or the number of bombers available. Therefore, there was no “silver bullet” defense. Fifth, and finally, comparing the destructive power of the four analyzed systems the study concluded that it was important to include both the costs of appropriate base defenses and also the specific effects of enemy bomb damage on each system. Thus, to sum up, Wohlstetter’s team showed how both overseas and ZI bases were extremely vulnerable. Though at that time ZI bases were out of range for Soviet bombers, “neither many bombs (...) nor large bombs [were] required to produce high levels of damage” (A. Wohlstetter et al., 1954, pp. 227–232) to SAC aircraft on any base, and the Soviets already had the means to carry out an attack against overseas bases.

As a recommendation, the study argued that SAC should abandon overseas operating bases and mid-air refueling, and instead should use overseas bases as staging bases. Meanwhile a combination of dispersal, hardening and early warning should be applied to bases since dispersal and hardening were “comparatively unaffected by a wide range of possible increments in enemy capabilities” (A. Wohlstetter et al., 1954, pp. 284–307). Note that RAND’s recommendations for quickly, effectively and cheaply reducing vulnerability did not imply a critique of the targeting system, even though logically targeting strategy and basing are closely related issues. Instead, the team focused on existing plans that called for a focus on DELTA targets (industry, i.e. cities), thereby evading an obvious point of contention with the Air Force. Nonetheless, the suggested ground refueling system still provoked the dismay of many commanders, including LeMay, who favored mid-air refueling—a technology perceived as superior—and therefore more fitting to the Air Force’s tradition of technological excellence.

Though a number of studies had dealt with the problem of vulnerability before RAND, none drew attention to the problem of developing a force capable of inflicting “unacceptable damage” after an initial enemy assault. RAND found that vulnerability had a crucial implication for the deterrent force and the whole concept of deterrence needed revision: deterrence should be all about a well-defended second strike force. This alteration to the logic eventually overcame the US initiative bias, and had wide-ranging implications for the central question of nuclear strategy (esp. targeting): how much is enough? The importance of second strike deterrence for the theory’s development as well as for policy formulation based on said theory cannot be overstated. For example, the need for surviving a massive enemy blow likely favors a relatively large posture (security in numbers). But it also invites the assumption that the lack of such second strike capabilities essentially provokes enemy

(preventive) attacks. If one uses such assumptions to assign meaning to the nuclear opposition between the two superpowers, the resulting policy decisions will become drastically different from, for instance, a minimum deterrence position. Indeed, the idea's wide circulation in the strategic community in the form of its later iteration, R-266, and then among the general public through Wohlstetter's (A. Wohlstetter, 1959) popular exposé in *Foreign Affairs*, entitled "The Delicate Balance of Terror," contributed to important changes in US strategic policy thought, which then emerged as the central element of the communication of Secretary of Defense Robert McNamara's strategic doctrine in the early 1960s (see Kaufmann, 1964).

Finally, it has to be noted that the study was an important step for the evolution of systems analysis as a method of research, and also as a framework for structuring and presenting research findings, eventually making systems analysis *the* RAND method in the eyes of policymakers. The basing study proceeded from the assumption that the elaborateness of analytical techniques was not as important in policy-oriented analysis as the consideration of the major factors and contingencies which affect choice on a broad problem (B. L. R. Smith, 1966, pp. 210–211). Wohlstetter did not strive for an optimum solution as much as he did for a proximate approach that would identify a satisfactory system, capable of functioning under widely divergent conditions. RAND's signature systems analyses became henceforth less precise in terms of their mathematics—while retaining scientific rigor and the use of extensive data—as they became more responsive to the policy maker's concerns. The versatility and success of systems analysis therefore comes from its flexibility in setting up the research problem: the method is completely dependent on the problem, i.e. the analyst.

In simplifying the model and gradually tailoring the setup when moving from R-244-S to R-266 to include considerations of US macro strategy (objectives, targeting etc.), and

factors such as political conditions of overseas base choice, the basing project figured prominently in the development of RAND's "strategic sense" (B. L. R. Smith, 1966, p. 211). This term refers to RAND's venture into the territory of bona fide military strategy, but it could arguably also be used to highlight the think tank's ability to interpret the policy environment through the sponsor's eyes, be it the Air Force or, later, the Kennedy administration. However, form and content is only half of the equation—and strategic sense—as findings also need to be disseminated effectively for the idea to take hold. Active persuasion during dissemination is a crucial form of contextual suasion. As I will show in the next sections, RAND had learned from the Paxson study in this regard as well, and drastically revised its approach to its patron. Doing so, I avoid the limited argument prevalent in the literature that shifting focus to matters of direct Air Force interest alone secured the gradual institutionalization of deterrence theory. Instead, I further expand the analysis to the manifestations of this sponsor-sensitive shift within persuasion tactics used in dissemination. My decision here is motivated by my empirics: the importance of briefing tours is routinely emphasized by Randites themselves. Edward Quade for example recalls that even though

[Wohlstetter] gave some ninety briefings on his study; nobody ever asked him about the model. His study was a logical presentation not a mathematical presentation, with real arguments and various reasons for doing certain steps, and the dangers that were apparent even if they weren't precisely spelled out numerically.¹⁷⁷

This recollection is one of several that call attention to the importance of simplification as an engine of ideational convergence between analyst and audience.

¹⁷⁷ ROHP interview with Edward Quade.

6.6. Charts, maps and pointing sticks: Briefing the basing study

In order to effectively disseminate the project's findings, Wohlstetter, Hoffman and Lutz embarked on a briefing campaign throughout 1952-53, whereby they delivered findings primarily to Directorate level personnel within the Air Staff, and also to the SAC staff. At the top of the echelon, acting CoS of the Air Force Thomas White was briefed in the summer of 1953. For Wohlstetter, "the tour" continued for the remainder of the 1950s¹⁷⁸, culminating in the publication of "The Delicate Balance of Terror," lending him fame outside of the immediate policy circle, and securing wide availability for the ideas embedded in the project.

Once the findings were ready to be presented, communication became "largely a question of tactics," referring to an initial concern felt by RAND management that "some special device or tactic to *dramatize* the study's importance so as to maximize its impact on Air Force policy" was needed (B. L. R. Smith, 1966, p. 218, emphasis added). Three elements for a general discursive strategy were devised, one concerning the study itself (its genre), a second the way in which it was presented, and the third, the systematic selection of audiences. First, management decided that the results of the study would be disseminated to the client in the form of a staff report. As I previously mentioned, R-244-S's short length assured greater visibility and circulation, while the category "special staff report" attracted further attention. As a staff report, it was distributed solely within the Air Force to prevent a leak, but also to leave ample time for the Service to weigh the merits of the study and protect itself against criticism later on. This careful selection of genre resonates with the tenets of contextual suasion: not only did it make the study more digestible for military officers, but it also

¹⁷⁸ The number of presentations, lectures and briefings Wohlstetter gave on vulnerability during his career is staggering. One can get a fairly good impression of the variety of form the same argument could take—depending on the audience and the context—from the Albert Wohlstetter papers at the Hoover Institution Archives.

facilitated its dissemination to the proper (i.e. RAND-favored) audiences, thereby increasing the likelihood of the text—as well as the idea it carried—being taken up by others.

Second, Wohlstetter devised a briefing scheme for the Air Force to ensure good reception. These very specific briefings highlight a fascinating contradiction within Wohlstetter's use of his own foreground discursive abilities, which in turn accentuates the multi-faceted nature of persuasion. According to various sources¹⁷⁹, Wohlstetter thrived on these presentations, despite his mixed record with public speaking at RAND. His colleagues see the explanation in the difference between audiences. RAND economist Hans Speier, for instance, recalls that Wohlstetter was a bad presenter when it came to presenting to the RAND Board of Trustees, yet excelled at presentations for the Air Force.¹⁸⁰ Wohlstetter's co-author, Henry Rowen, also emphasizes his presentation skills when it came to Air Force briefings:

It was not [Wohlstetter's] style to write an article and simply put it in the mail. If the project was worth doing, it was worth a marketing effort. He took great pains to learn about the views and positions of the decisionmakers involved, and *to design arguments that would be most effective*. This meant spending a lot of time on the road, especially in Washington, but also at the Strategic Air Command's headquarters in Omaha, NATO headquarters, and elsewhere. To AW, these were not simply 'briefings.' For one thing, they were usually not brief; for another, these were two-way exchanges, for the presenters learned much from these sessions. (Rowen, 2009, p. 107, emphasis added)

Molding arguments to better suit the audience was one of the key strengths of Wohlstetter's presentation style. His habit of gradually shaping the language and content of his presentations is traceable in his presentation notes now kept in the Hoover Institution's Archives. The reader can easily trace how Wohlstetter adjusted his texts in-between

¹⁷⁹ E.g. Collins, 2002; Jardini, 1996; Kaplan, 1983; May, 1998; Smith, 1966.

¹⁸⁰ ROHP interview with Hans Speier. Date: April 5, 1988. Interviewer: Martin Collins. Auspices: RAND. Smithsonian Archives, RAND History Project Interviews, Box 10.

presentations, shifting the tone of arguments, frontloading claims, adding qualifiers etc.¹⁸¹ What makes this observation exceptionally interesting for the application of the contextual suasion model is that translation not only unfolded in-between audiences, but also in-between written texts and oral presentations (in terms of theory, both count as text). Not only did Wohlstetter perform better with a military (i.e. layman) audience, but he also excelled in translating his own research into presentations that relied on various tools from issue-specific narratives¹⁸² to seemingly trivial things like time management and the use of charts.

The third, and final element of the strategy was RAND selectively targeting compartments of the Air Force "that [were] likely to be a player and to have different views."¹⁸³ The first briefing was given to SAC at Offutt Air Base in Omaha to LeMay's deputy, General Thomas Power, and a group of officers. Power called the briefing "very interesting" (Kaplan, 1983, p. 102), and the rest of the audience seemed enthusiastic, calling the report "a shocker," and claiming it was well done... for civilians without military experience. Ironically, this patronizing layman-professional dichotomy worked on both sides—and for the benefit of both—when it came to inter-tradition translation: Randites simplified scientific arguments for the uninitiated military, and the military welcomed the novel take on their own field of expertise from the well-meaning civilian-outsider. Such briefings managed to considerably widen the group of sympathetic officers, who then acted as carriers with organizational authority—authority that was quite different from that of RAND analyst—and often retextualized the study's findings within their own branch. The next stop was the Pentagon, where about forty senior Air force colonels represented various directorates of the Air Staff. There it was eventually decided that the study merited wider circulation, so a

¹⁸¹ This claim is based on my own analysis of the Alfred Wohlstetter Papers at the Hoover Institution Archives.

¹⁸² For instance once the USSR announced it had the H-bomb, Wohlstetter and his colleagues further dramatized the dangers of an enemy first-strike against overseas bases (B. L. R. Smith, 1966, p. 225).

¹⁸³ ROHP interview with Albert Wohlstetter.

“saturation campaign of briefings” was to be launched throughout various commands and major components of the main Air Force directorates. The aim was to test the research findings with expert audiences and to eventually brief them to the Air Force Council (B. L. R. Smith, 1966, p. 220).

After the first few briefings, it became obvious that the main obstacle was SAC itself: the command most affected by the study’s findings and recommendations. LeMay and other officers disliked the idea of spending money on protecting bombers instead of getting more—and newer—bombers to increase survivability. So the vulnerability finding at the core of the study was not questioned, but its implications were. Crucially, for SAC commanders, vulnerability implied a need for SAC to get in the first blow. Moreover, LeMay in particular doubted the Soviets could even surprise SAC, and suggested that such an attack would be detected well in advance, thereby negating the need for base hardening or even dispersal. But even if LeMay’s assumption had been true, they would still not have rendered any of the vulnerability findings in R-244-S mute (less persuasive), and SAC officers knew that. Therefore, to attack the study on its own ground, SAC criticized the text for treating base systems as separate categories, arguing that SAC actually planned to use a combination that would be more “austere” than that proposed by Wohlstetter.¹⁸⁴ This criticism was reiterated on several occasions during the study’s journey through the Air Force bureaucracy, despite R-244-S specifically stating that “in practice, desirable strategic air operations will combine elements of all the systems studied” (A. Wohlstetter et al., 1953, p. 3).

Another important shortcoming according for SAC was that the study did not take into account the potential decrease in enemy capabilities after a successful offensive—a

¹⁸⁴ Memo, “Strategic Air Command Views on the RAND Study ‘Selection of Strategic Air Bases’” 17 June 1953. NARA II, RG 341, Entry 335, Box 474A, Folder OPD 385 RAND, Sec. 4.

necessary omission as Wohlstetter and his team worked with a surprise attack scenario. Echoing airmen's strong belief in the power of preemption discussed earlier in this chapter, SAC representatives believed that the US would strike first. Consequently, LeMay and others argued that not only vulnerability, but the interplay with war plans should also be taken into account. Then the ground-refueling system proposed by RAND would hinder a quick, decisive preemptive blow.¹⁸⁵ But besides the tradition of staying at the forefront of technological development, SAC's organizational position (legitimacy) was also at stake. By 1953, though still a command of the Air Force, SAC had namely become semi-independent: the command only took orders from the Joint Chiefs of Staff, which gave it unprecedented influence, even against the Air Staff. Accepting RAND's suggestions verbatim, and thereby admitting acute vulnerability (and prior ignorance) could have meant renewed Air Staff oversight (esp. since the Air Staff originally commissioned the basing project).

6.6.1. Expert reception in the Air Force: The Ad Hoc Committee

The saturation campaign continued until the end of May 1953. In early June a significant briefing was arranged for officers of general rank—the highest ranking group Wohlstetter had briefed thus far—where it was decided that a special Ad Hoc Committee of the Air Staff would be formed to assess the component parts of the study for their accuracy, reasonableness of assumptions and feasibility of implementation. The committee was to prepare a report for the Air Council and was composed of representatives from the Directorate of Plans, Operations, Installations and the Assistant for Logistics Plans. It began its work in June 1953 and finished in October that same year. The Committee sent the RAND study as well as its

¹⁸⁵ Memo, "Strategic Air Command Views on the RAND Study 'Selection of Strategic Air Bases'" 17 June 1953. NARA II, RG 341, Entry 335, Box 474A, Folder OPD 385 RAND Sec. 4.

own, favorable report to most branches of the Air Force, and asked them to comment on it by the end of summer 1953. RAND's plan to brief in a targeted manner paid off: as separate approvals were requested from each directorate for the final committee report, each directorate—as well as the committee members representing them—needed to be persuaded within its own organization traditions and bureaucratic concerns. Therefore, a selection of directorate reactions to the basing study sent to the Ad Hoc Committee offers an excellent overview of subsection-level reactions to both the study and its presentation.¹⁸⁶ A memorandum from Dir. of Plans for instance mentions that “the presentation represented the briefest summary of a very exhaustive study which appears to be well documented by facts, figures, costs, etc.”¹⁸⁷

Due to shared methods (grammar) between RAND and the Air Force Operations Analysis Division (Directorate of Plans), the latter was also asked to examine the report. The division accepted RAND's methodological choices and was generally impressed by the study's quality: it “urge[d] that the findings of this RAND study be implemented as soon as possible”, and praised the study as “the most significant work that has ever been accomplished in this very difficult field”, and as “an outstanding contribution to Air Force planning”.¹⁸⁸

Last but not least, SAC's concerns were also summarized in a single document. The main point of criticism was still that RAND did not deal with composite models, meaning they did not have a system where tankers—mid-air refueling planes—are integrated within an

¹⁸⁶ The selection of documents is available for research in the National Security Archives (NARA II), RG 341.

¹⁸⁷ Memorandum by Gen. Lee (Director of Plans) for: Chief, War Plans Division; Chief, Policy Division; Chief, Psychological Warfare Division; Chief, Mobilization Division Subject: (Unclassified) Base Locations 12 June 1953. NARA II RG 341, ENTRY 335, Box 474-A Folder OPD 385 (RAND), Sec 4.

¹⁸⁸ Memorandum for Colonel S. W. Henry, Chairman Ad Hoc Committee Analyzing the RAND Study, “Selection of Strategic Air Bases”, War Plans Division, Directorate of Plans, DCS/O Subject: (Unclassified) The RAND Study, “Selection of Strategic Air Bases,” R-244S Top Secret 3 July 1953. NARA II RG 341, ENTRY 335, Box 474-A Folder OPD 385 (RAND), Sec 4.

overseas staging scheme thereby the study “loses some of its validity”. The tone of the SAC document was very defensive, yet it still did not question the vulnerability argument at the report’s core, and was therefore “in general agreement with the conclusions”. In an attempt to save some face, the authors referred to earlier SAC studies on the same subject, and the document concluded with the reiterated claim that SAC supports the development of a “truly intercontinental bomber” and the use of tankers to extend range.¹⁸⁹

By September 1953, the Ad Hoc Committee had comments from all major commands. A Committee memorandum that summarized and evaluated the individual commands’ responses read: “in general the comments obtained were favorable to the recommendations made in the Ad Hoc Committee Report. (...) None of the agencies have failed to concur in the committee findings on the vulnerability of the programmed systems”.¹⁹⁰ Most criticisms were aimed at the report’s policy recommendations, not its substantive content, usually reflecting bureaucratic legitimacy concerns. One of the commands (unnamed in the document), for instance, drew attention to “the damage to the Air Force position that may occur with the immediate adoption of the complete plan, due to possible national and international political repercussions,” while still recognizing the necessity for immediate implementation of many of the recommendations. Another comment pointed out “the necessity for the establishment of a firm Air Force position, and its presentation to Congress prior to implementation rather than after”. The Directorate of Operations emphasized the “political repercussions that the prestige of the Air Force would

¹⁸⁹ Strategic Air Command Views on the RAND Study “Selection of Strategic Air Bases” and the Air Staff Ad Hoc Committee report on Analysis of the RAND Corporation Study” 17 June 1953. NARA II RG 341, ENTRY 335, Box 474-A, Folder OPD 385 RAND, Sec 4.

¹⁹⁰ Memorandum for Colonel S. W. Henry, Chairman Ad Hoc Committee Analyzing the RAND Study, “Selection of Strategic Air Bases”, War Plans Division, Directorate of Plans, DCS/O Subject: (Unclassified) The RAND Study, “Selection of Strategic Air Bases,” R-244S Top Secret 3 July 1953. NARA II RG 341, ENTRY 335, Box 474-A Folder OPD 385 (RAND), Sec 4

suffer,” pointing out that the present Air Force program was vulnerable. Vulnerability was meant both literally and figuratively when the directorate pointed out that the “Navy and JCS would ‘shoot down’ the programmed single concept of operating all SAC medium units simultaneously from forward bases.”¹⁹¹ Despite these misgivings though, the original document that the Ad Hoc Committee refers to adds that “some of the recommendations (...) should be immediately adopted such as improvement of the time element in evacuation, hardening of fuel systems, review of prestocking plan, push for increase of early warning, etc.; but the Directorate of Operations does not concur with the immediate adoption of the complete plan.”¹⁹²

In conclusion, the Air Staff level review accepted the vulnerability argument without any serious doubts. All critical remarks were targeted at the policy recommendations RAND pushed for in the study as these concerned the delicate bureaucratic balance both within the Service, and among the different services. Specifically, officers either criticized specific recommendations (Dir. of Installations), parts of the methodology that led to specific recommendations (SAC), or merely opposed bringing findings to public notice (Dir. of Operations). Crucially, unlike with the Paxson Bombing Study, the Vulnerability Study’s contributions to strategy were not rejected merely because of the policy recommendations they led to. In fact, the quality of scholarship—both in the original text and more crucially in Wohlstetter’s presentations—was praised across the organization.

¹⁹¹ Air Staff Comments on the Ad Hoc Committee Report on the RAND Corporation Study “Selection of Strategic Air Bases” No date, circa late Sept. 1953. NARA II RG 341, ENTRY 335, Box 474-A, Folder OPD 385 RAND, Sec 4.

¹⁹² Memorandum from Director of Operations to Director of Plans Subject: (R) Ad Hoc Committee Report on the RAND Corporation Study “Selection of Strategic Air Bases” 24 Sep 1953. NARA II RG 341, ENTRY 335, Box 474-A, Folder OPD 385 RAND, Sec 4.

6.6.2. Presentation of the basing study to the Air Force Council

Despite positive reviews concerning the study, the implementation of its policy recommendation did not advance as expected: subunits of the Air Force critical of these suggestions tried to hinder implementation, at the same time stressing the need for “keeping face” vis-à-vis other services. As Wohlstetter recalls, “it looked as though we would convince everybody intellectually, but that nothing would get done” (quoted in B. L. R. Smith, 1966, p. 224). Since the Ad Hoc Committee needed to decide on a consensual basis, the more reluctant commands could stall progress. Most of the critical responses reflected fears that the study would necessarily lead to changes in programmed activity. The general argument was—apart from the implied extra work—that service rivals could interpret such changes as admission of error on a vast scale. Others suggested that drastic revisions could undermine the morale of their units, and could lead to potential embarrassment in front of Congress and potential Congressional investigations (see Kaplan, 1983, Chapter 6).

To counteract the stalling techniques, Wohlstetter had management to set up a meeting with General White, acting CoS.¹⁹³ This was a significant meeting for RAND’s history as it was the organization’s highest level run around the Air Force bureaucracy attempted thus far. Wohlstetter and RAND’s top management met White at the time when the Soviet H-bomb was announced. The CoS accepted RAND’s approach, and with White’s approval, the Ad Hoc Committee presented its analysis to the Air Force Council in October 1953, with separate comments from the Director of Plans, Director of Operations and SAC. On October 29 and 30 the Council made its own report to General White and Acting Secretary of the Air Force Jim Douglas. It recommended:

¹⁹³ General Nathan Twining took over the position of Air Force Chief of Staff from Vandenberg on June 30, 1953. White, acting CoS during Vandenberg’s illness, became his Vice Chief of Staff. He later became Air Force Chief of Staff on July 1, 1957.

- a. That the vulnerability of Air force facilities be recognized in all Air Staff planning and actions.
- b. That specific vulnerability factors be developed on a zonal basis [within each air base].
- c. That a program of hardening bases to atomic attack be initiated (...) Also, a capability of achieving rapid recuperability of attacked bases shall be developed.
- d. New advanced bases shall be constructed and stocked to ground refueling standards with atomic toughening and rapid refueling capacity unless construction to other standards is required either by national or political agreements or overriding operational requirements.
- e. That the material resources in overseas areas be reduced to the minimum extent possible consistent with the planned utilization.¹⁹⁴

White and Douglas approved the Air Council's decision, and White ratified it in early November 1953, signifying the end of RAND's intensive persuasion campaign. Though the study's conclusions were accepted, the matter of policy implication remained on the table, as well as the problem of bureaucratic legitimacy: by openly accepting vulnerability as a problem, the Air Force seemed to invite a political attack from the Navy. The problem here was profound, and reached back to earlier interservice clashes as an Oct 1953 Air Force Council memo attests:

For a number of years the Air Force has contested Navy statements on the utility of the [aircraft] carriers in an atomic era. We have pointed to the enormous cost and extreme vulnerability of the carriers and their 'escape' speed of 35 knots versus high performance land base aircraft. If our bomb force is a fraction as vulnerable to attack while on the ground now or during the period 1956-1961 then we may well assume that our delivery system is even more expensive than the Navy's, may have less chance of succeeding and our bases will be without such 'escape' speed as the carriers possess.¹⁹⁵

¹⁹⁴ Memo, Gen. Robert Burns, "Decision on AFC 22/4b: Vulnerability of the Strategic Striking complex," Nov. 2, 1953. Library of Congress, Manuscript Division, Nathan Twining Papers, Box 103, Air Force Council Chief of Staff Decisions, Vol. 1, Tab 22/4b.

¹⁹⁵ Memoranda for: Director of Plans, Secretary of the Air Force, Subject: (Uncl.) Selection and Use of Strategic Air Bases 12 October 1953 by Lt Gen E. E. Partridge. NARA II RG 341, ENTRY 335, Box 474-A, Folder OPD 385 (RAND), Sec 4

Again, the problem for the Air Force was not the existence and extent of vulnerability per se—a known fact for most top commanders at least to some degree—but the implications of this fact becoming public knowledge within the military. Therefore, the same document suggested the use of “a great many alternative plans which the Air Force might resort to *if forced*.”¹⁹⁶

But an interservice attack did not occur (see the truce under New Look), and the recommendations were never fully put into force. The Soviet H-bomb made some of the hardening recommendations seem obsolete, and LeMay was still determined to solve the basic problem through the development of the B-52, a truly intercontinental bomber (Kaplan, 1983, p. 106). Eventually the obsession with technological progress (bombers) and considerations of budget maximization overruled the basing study’s frugality, and only a fraction of RAND’s basing suggestions were included in war plan “Full House” (see Kaplan, 1983, p. 107). Still, vulnerability remained a primary concern for the Air Force throughout the Cold War, and the narrative of immediate danger and vulnerability was constantly used to justify alert programs, hardening and weapons acquisitions. Thus, even though the Basing Study failed as concrete policy advice, its core argument (vulnerability) was persuasive for diverse policy audiences, and therefore RAND was successful at transmitting policy beliefs through texts that carried this finding. It also needs to be noted that this transmittal was also nonlinear, and, if one includes all targeted audiences—most notably politicians and the general public—it continued through the better part of the 1950s. To highlight the complexity of this process, the next section addresses the question how RAND, and Wohlstetter in particular, tried to shape the macro-discourse in the immediate aftermath of R-244-S’s publication.

¹⁹⁶ Memoranda for: Director of Plans, Secretary of the Air Force, Subject: (Uncl.) Selection and Use of Strategic Air Bases 12 October 1953 by Lt Gen E. E. Partridge. NARA II RG 341, ENTRY 335, Box 474-A, Folder OPD 385 (RAND), Sec 4. Emphasis added.

6.7. The vulnerability narrative beyond policy advice: Contributions of the R-266 study

After its approval by the Air Force Council, Wohlstetter and his colleagues expanded the report into the 424-page “Selection and Use of Strategic Air Bases” (R-266). The story of R-266 again reflects the contextual awareness of both RAND analysts and management. First, publication was held back until April 1954 to leave enough time for the Air Force to prepare for the potential backlash. Second, the original text was recontextualized to better reflect an awareness of the Air Force’s bureaucratic position. This retextualization was clearly guided by RAND’s experience with the initial briefing tour, but it would be erroneous to see R-266 as merely an expanded version of R-244-S with some Air Force bullet points glued to its conclusions. Another point to consider when assessing the role of R-266 within the series of persuasion attempts throughout the 1950s is that by the time the new study was circulated throughout the military, the Air Force had already been implementing some of its recommendations (plan “Full House”). To reflect this positive action in the text, the criticized “programmed system” (R-244-S) was changed to “formerly programmed system” (R-266). As Wohlstetter recalls, wording and authorship were crucial aspects for the study’s success:

it’s one of the problems in the history that if you’re interested in changing policy, you frequently have to avoid taking complete credit for what you’re doing. What you do is get a change made, and if you can persuade the decision maker that it was his idea, that’s even better. And you certainly want it blatantly clear so that bureaucratic adversaries of the service will not use this as a sort of critique. Our purpose wasn’t to act as critics, but to suggest the best policy. But if you do this, then you frequently have to obscure your tracks somewhat and that’s the way we did it.¹⁹⁷

How RAND could use the study not only to improve but to support the Air Force was partly a factor of the strategic theory underlying its conclusions—a theory that, to use the above quote, had to be made the Air Force’s idea. As I noted earlier, the project as a whole brought a

¹⁹⁷ Interview with Albert Wohlstetter.

number of contributions to deterrence thinking, many of which were first presented in R-266. Vulnerability then in this sense is not merely an observation of an objective strategic fact, but a full-fledged narrative for assigning meaning to the nuclear Cold War. As I have argued earlier, policy implementation alone does not signify either success or failure for an expert idea, since experts are also interested in the dissemination of their policy beliefs. The widespread concern with vulnerability that characterized thinking in the US during the peak of the Cold War shows how successfully these beliefs could dominate the discourse. On the other hand, the history of subsequent warplans, like the SIOP, as well as the targeting debate, attest to the institutionalization of said beliefs.

Crucially, vulnerability as conceptualized by defense rationalists was not merely a primordial fear of an attack, but a fundamental shift in strategic thinking, as well as nuclear policy formulation—most notably in terms of what expert advice should look like and what methods it should employ. The distinction between first and second strike deterrence that underlies the vulnerability project was new to the Air Force, but was quickly internalized. Another crucial theoretical contribution of the project—also forwarded in R-266—was Wohlstetter’s dynamic model of nuclear conflict. As he himself phrased it:

The problem of reducing the vulnerability of the strategic-base structure does not exist for a point in time, but rather it extends from the present to an indefinite future. With time, the type and magnitude of threats presented changes; measures adequate against 1956 Russian capabilities may be inadequate against 1960 Russian capabilities. It is important to select a base system which has value not only for the present, but also for later systems. (A. Wohlstetter et al., 1954, p. 266)

This conclusion was in stark opposition with Bernard Brodie’s claim that the H-bomb would bring any kind of stability to deterrence due to its destructive capacity. Instead, Wohlstetter listed a number of factors that, when changed, could render nuclear war more or less appealing. Offense, defense, deterrence and surprise attack were all interrelated in a dynamic

model. A new offensive weapon, for example, could seriously dislodge the nuclear balance and invite a preventive/pre-emptive surprise attack. But what was more surprising was that defensive systems could also have the same effect—an argument that was extensively used in the anti-ballistic missile (ABM) debate (Grynaviski, 2010).¹⁹⁸

For Wohlstetter, this conclusion depoliticized deterrence—the balance could be offset by technology alone—but for others, like President Eisenhower, it highlighted the importance of enemy intentions. This interest in balance management/intentions spurred Thomas Schelling’s seminal work on signaling, famously stating the problem of expectations, pre-emption and balance as: “He thinks we think he thinks we think... he thinks we think he’ll attack; so he thinks we shall; so he will; so we must” (Schelling, 1960, p. 207). Weakness and strength could both invite an attack, so deterrence was a game of careful balance that required immense measures, money and attention. This argument was a direct rejection of minimum deterrence—put simply, the argument that the “how much is enough” question could be settled once and for all—and emphasized the importance of intelligence and signaling. As for the Air Force, the constant and costly struggle for a balance equaled a potential bid for more and more money, along with better weapons. And the RAND study showed a way to build up a secure force while saving money in the process.

6.8. “Making obvious sense” vs. policy implementation

The core finding of the basing project was that a well-planned Soviet surprise attack could knock out SAC forces stationed on overseas bases. At the time of the study’s preparation, the

¹⁹⁸ What makes the ABM debate exceptionally interesting from the point-of-view of RAND influence is how Robert McNamara used the same balance argument against ABM missiles, but not against MIRVs (multiple independently targetable re-entry vehicles), an offensive system that could have just as easily offset the strategic balance.

Soviets could not yet reach the continental US¹⁹⁹, but could hit overseas bases easily. If such a surprise attack hit, the project showed, the US would be crippled and would not be able to retaliate. As RAND suggested, to prevent such an occurrence, a secure retaliatory capability was needed (second strike deterrence), which relied less on overseas bases than the then current system. From the deterrence theory point of view, the real novelty of the finding was in the underlying argument: without second strike deterrence, the US was not deterring the Soviets, but actually *inviting* an attack. Consequently, maintaining stable deterrence required continued effort as a technological innovation alone could upset the balance and provoke (pre-emptive) war. This apolitical theoretical innovation was truly revolutionary for its implication for the proper nuclear posture of a secure deterrent, as well as the role of politics in the defense rationalist understanding of deterrence. Thus, its frequent praise within the historical literature is understandable.

But the history of the project as an attempt to change policy—after all, as Wohlstetter remarked, “the purpose of systems analysis is not publishing a book; you are trying to get a policy changed”²⁰⁰—is mixed, since the above theoretical innovations did not immediately take hold in policy-making circles. The project’s conclusion about existing vulnerabilities and basing concepts was of immediate relevance for the Air Force, and the RAND team encountered open ears. Yet other elements of the project—most expanded on in Wohlstetter’s briefings, R-266 and later iterations—such as the idea about force projection and general deterrence strategy, were simply ignored. Second strike capabilities in particular were simply absorbed into existing elements of the airmen tradition, most notably the assumption about having the initiative in the case of a war; or they were subsequently used to justify the Air

¹⁹⁹ In his ROHP interview, Director Collbohm ironically notes that the Soviets seemed to have heeded the advice Paxson gave the Air Force: their strategic fleet relied on piston engine planes. (ROHP interview with Frank Collbohm.)

²⁰⁰ ROHP interview with Albert Wohlstetter.

Force's position in budget negotiations. The assumption about US initiative (i.e. total control over nuclear war) shifted the debate towards the problem of existing vulnerabilities and not the question of general strategy, i.e. how a nuclear war would be played out and how it could be controlled if at all. By pointing out this contradiction between the projects two aspects, this case study has highlighted the problem with most historical accounts that trace the turn in US strategic thinking to deterrence back to the basing study.

Instead of simply seeing the basing project as a distinct point in time—a turning point in US strategic thinking and policy—I suggested scrutinizing its construction, communication and subsequent evolution as a non-linear process of persuasion. The main element of my interpretation questioning existing narratives is the fact that even though the Air Force readily accepted the vulnerability argument, on the one hand the study was primarily seen as a policy document and not as an oeuvre in grand strategy, and on the other hand, as a policy document the study was largely ineffective: specific policy proposals were only partially and non-systematically implemented. Under the traditional understanding of expert influence, this should be a case of failed influence. However, once we employ the framework of contextual suasion, the study becomes an example of persuasive content that enabled the transfer of policy beliefs in the long run by offering a full-fledged narrative to frame questions of aerial nuclear war. Short of calling this a success story, however, I instead suggested a closer look at the process itself at the time of the study's initial dissemination. This period, as I have shown, highlights the complex relationship between active and passive persuasion, and persuasion as an exercise in cross-tradition translation that can be learned by conscious agents.

Contextual suasion highlights the importance of double hermeneutics in understanding persuasion: reflexive agents persuade based on their interpretation of their environment, which is then interpreted by the analyst. On the one hand, the chapter provided the political-institutional-theoretical context for the time of the study's conception to facilitate reader comprehension of the particularities of agents' interpretations. On the other hand, it emphasized a change in how defense rationalists—here for reasons of brevity exemplified by Albert Wohlstetter—shifted their interpretation of two stable elements of their environment: their patron, the Air Force, and the role of their own scientific tradition within their work as policy experts. Shifting interpretations then led to novel ways of research design, argument formulation and dissemination practices which were all consciously designed to facilitate the study's positive impact on Air Force officers.

This interpretation showed: an awareness of Air Force positions with special regard to the interservice debate; a flexible patron-sensitive setup²⁰¹ via systems analysis (how to set scope, how to select variables, what variables to favor etc.); a simplified language for non-scientist audiences; a toned down critical voice; as well as special dissemination techniques such as genre adaptation and audience selection. Even though a strong reliance on the scientific tradition lay still at the core of defense rationalist thinking, instead of challenging the Air Force from the scientific “high ground”, Randites sought to be more subtle in their communication, trying to speak their audience's language. As Ed Barlow recollects, Randites “would differ with [an Air Force] position and give a reason, but we wouldn't say things that I think would be sort of critical.”²⁰² These elements of RAND's persuasion practices show the importance of the interpretivist concept of tradition in understanding policy-making: though

²⁰¹ This setup included the cooptation of officers at low levels of research complexity to guide Randites.

²⁰² ROHP interview with Edward Barlow.

traditions influence human beliefs and actions, they are only a go to position and can be adjusted by reflexive agents. Such adjustments, as the case study demonstrated, can incorporate inter-tradition and/or inter-discursive references. The presentation of the study hence shows heightened attention to the policy context (Air Force interests), a better understanding of different audiences, and the use of presentation methods to support these. The think tank and its defense rationalists certainly had learned some lessons when it comes to active persuasion and the possibility of translating in-between the scientific and the military tradition.

But then the question still remains: if tailor-made dissemination techniques and a patron-sensitive language were so well made that the vulnerability argument “made obvious sense”²⁰³ to the Air Force, why then were specific recommendations never implemented? As the chapter explained, the Air Force at the time of the study’s conception was at the pinnacle of its power. Though the Soviet atomic program was starting to catch on, the US Air Force was not concerned with a potential attack either on US cities or SAC forces. The WWII tradition was still very much in tact, especially the assumption about invulnerability and American control of nuclear war. Moreover, strategic bombing was still seen as a logistic exercise, metaphorically speaking, bombs needed to be “delivered” to their destination. This logistics frame in turn excluded the Soviet Air force as an equal opponent of a two player game, and merely saw it as a defense force which could hinder the above logistic exercise. As I mentioned, political concerns about vulnerability and the costs of containment largely left these beliefs unaffected: massive retaliation in particular was interpreted as a declaratory version of existing Air Force policies that counted with a single strategic campaign against Russian cities. Vulnerability, once shown, reinforced the need for prevention (stronger control

²⁰³ ROHP interview with Frank Collbohm.

over conflict) and an expansion of forces. Even with the main theoretical contribution, second strike deterrence, no fundamental policy change was initiated after the study's dissemination as SAC continued to calculate in terms of the capabilities in destroying Soviet targets, not in terms of the force that would remain after a Soviet attack, ie. a second strike force, during interservice targeting negotiations (Rosenberg & Moore, 1981).

An explanation needs to consider the extent of dilemmas the Air Force had to face at the time. As several Air Force studies and internal documents attest, the dilemma of vulnerability was known—see the prevailing “second Pearl Harbor” analogy—if not the extent of it. The “shock” of Air Force audiences that key figures from both sides recall, points more to the extent of vulnerability, and not to the existence of vulnerability as such. Therefore the Air Force needed little persuasion to internalize this finding. The conclusion was shocking, yet no true dilemma evolved for the Air Force: the problem was apparent but was not perceived as pressing due to the aforementioned assumptions about the nature of nuclear war that lay at the core of the organizational tradition. The problem was still there though, and it needed some sort of solution. However, maybe curiously for defense rationalists, the Air Force framed the problem in terms of the interservice rivalry, and not an actual conflict with the Soviet Union. Somewhat ironically, RAND's attention to the interservice context—for example in terms of the choice of genre and the retextualization of critical points for R-266—enabled the Air Force to avoid a serious challenge to the interservice truce that New Look enabled. Consequently, the persuasiveness of other elements of the study did not have to be tested in a legitimacy/sensemaking crisis, and translation was practically automatic —due to changes in defense rationalist practices—as ideas were used strategically by the Air Force to justify and contextualize half-hearted attempts at vulnerability mitigation *within* its own unchanged tradition. When vulnerabilities became public, the Air Force could already present

countermeasures and the Navy, lacking an alternative, backed down. To use Peter Hall's terminology, political and scientific viability did not go hand in hand with administrative viability as subservices opposed sweeping changes.

From the point of view of contextual suasion, the persuasiveness of the initial idea and the texts that carried it in this case was therefore more passive than active, despite Wohlstetter's excellence at briefings. Nevertheless, passive persuasiveness does not necessarily imply chance: RAND did indeed learn from the bombing study and adjusted its internal working to produce texts that are more attuned to the patron's needs, making these more persuasive. What passive persuasiveness implies here is that subsequent retextualization was not needed on the analyst's behalf in the initial dissemination period to persuade the audience.

As for the central question of this dissertation, the longevity of defense rationalist ideas, the case bears importance first in terms of the lessons learned in passive/active persuasiveness along with their feedback effect on the defense rationalist tradition itself; and second, in terms of the ideas' afterlife. For defense rationalists working as experts, talking to the patron has to be a central issue for influence. This involves awareness of the patron's interests and tradition, as well as proper means of argument construction prior to dissemination. Systems analysis proved an invaluable tool for both: with the basing/vulnerability study, the method proved its flexibility in "extracting" questions of relevance to the Air Force, and it thereby acted as RAND's primary framing tool in its engagement with clients.

The basing study thus set *the* model for what strategic analysis should be, in terms of form, content and communication. As the RAND interviews of the Smithsonian attest, along

with various secondary accounts, R-266 was almost always listed as RAND's greatest success and its most impressive study. It imposed a requirement on expert advice to mean quantitative analysis with elaborate—yet accessible—calculation and extensive use of hard data. The project's success also had indirect implications for the internal workings of RAND. Despite the lack of policy implementation, its perceived success meant for many the victory of systems analysis over qualitative social science. As Wohlstetter became famous outside of RAND with his briefings that continued throughout the 1950s, the think tank became equated with systems analysis exclusively. In a 1968 letter to strategist Michael Howard, Wohlstetter claimed that:

the discovery of the vulnerability of SAC, the development of the first-strike, second-strike distinction, and the recognition of the feasible but limited and difficult stability of deterrence owes substantially nothing to the strategic writings of the natural and social scientists. I was not familiar with these writings, and if I had been, they could hardly have led me to the conclusions that emerged from empirical study. (Quoted in May, 1998, p. 165)

Meanwhile, representing qualitative analysts, Bernard Brodie rejected the study on grounds of it being apolitical, raising criticism similar to that leveled against the Paxson study, mostly about systems analysis' disregard of non-quantifiable factors. He argued that it was unlikely that vulnerability would invite a strike alone, and that a strike would arrive without prior political tension. He maintained that putting SAC on constant alert would remedy many of the problems listed in R-266.²⁰⁴

In this sense, the debate in the wake of the study effectively canonized the existing group division between quantitative and qualitative scholars into two competing, coexisting understandings of deterrence. On the one hand, those, like Wohlstetter, who thought nuclear war could be understood in numbers, also thought that it could be managed. This group

²⁰⁴ For a detailed discussion of the Wohlstetter-Brodie argument see Brodie (1973).

became the proponent of a maximalist understanding of deterrence, one that implies that with the right amount of forces nuclear war can be won *and* that such an ability alone constitutes a deterrent. On the other hand, people like Brodie who thought control was impossible in the thermonuclear age, opted for a minimalist option that suggested a small number of well defended and targeted weapons as deterrence. This version of deterrence, which I discussed earlier, also implied deterrence by punishment. The availability of these two competing narratives of deterrence enabled RAND—and consequently the Air Force—to justify or criticize a wide range of policy options in subsequent debates.

This availability of ideas leads me to the second important point for the central argument of this dissertation: the claim that viability/persuasiveness of an idea does not necessarily imply automatic institutionalization, but more a continued presence in the macro-discourse where the idea needs to achieve discursive dominance. With the expert as the originator of the idea, this implies a gradual transfer of policy beliefs, and not necessarily preferred policy outcomes. The story of the vulnerability narrative, coupled with the policy “failure” of the basing study, perfectly demonstrates this dynamic: its continued availability in the policy discourse set the boundaries of the policy debates, for example with regards to counterforce. Narratives, frames, metaphors and such devices are used to assign meaning to the world around us—in the case of defense rationalism, the Cold War and the role of nuclear forces within. If one accepts the vulnerability narrative as developed by defense rationalists at RAND, nuclear strategy becomes more than a mere logistical exercise of delivering bombs to their targets—something that could easily be dealt with through the WWII bombing tradition. Departing from the observed vulnerability of forces to a hypothetical attack, defense rationalists gradually constructed a whole narrative that included diverse ideas from second strike deterrence to the delicate balance of terror.

Thus, in conclusion, even though the ideas were used instrumentally and were filtered through the pre-existing Air Force tradition, vulnerability eventually became a central issue of nuclear strategy for the remainder of the 1950s and contributed to the major crisis of the Air Force in the Polaris/counterforce debate—an alternative Navy deterrent that was advertised as *invulnerable*—leading to the multifaceted dilemma that I discuss in the third case study entitled “Cities”.

Chapter 7: “Cities”

7.1. A dent in Air Force primacy: Vulnerability in the wake of the missile gap

Interpretivists tell us that dilemmas arise when material and ideational conditions can no longer be plausibly explained by a prevailing worldview or tradition. When encountering such a dilemma, actors engage in a creative process of reformulation that may involve drawing from other traditions in order to construct a more viable account of events (Kettell, 2012, p. 2). As I have continuously stressed throughout this dissertation, due to its primary position in the targeting bureaucracy, the Air Force has always been the object of criticism, mostly from its archrival the US Navy. Organizational dilemmas arising from such challenges could either be completely theoretical such as criticism targeted at Air Force strategies, or could result from a need to assign meaning to external changes in technology like the development of the hydrogen bomb, or perceived changes in the Cold War status quo such as the “bomber gap” hysteria²⁰⁵ in the mid-1950s. What linked them was the fact that they all forced the Air Force to engage in some sort of legitimation. These dilemmas, however, could mostly be solved by the Air Force, as the two previous case studies in this dissertation also demonstrated, and with the bomber gap actually aided procurement programs. Reaching back to its tradition, the service could emphasize doctrinal continuity and flexibility as a translation of national security policy by framing nuclear strategy as one of deterrence by punishment, to be carried out the Air Force (SAC). The primary goal was to deter the enemy from attacking, but if

²⁰⁵ The bomber gap, similarly to the missile gap, was an unfounded belief that the Soviet Union had achieved numerical superiority in carrier technology—in this case, jet bombers able to reach the continental United States. The hysteria, like with its cousin, led to a massive buildup in the US to compensate for the “gap”. Here the hysteria was actually created by Russian subterfuge: at the Soviet Aviation Day parade in July 1955, ten Soviet bombers were flown past the reviewing stand—including American viewers—then, once they flew out of sight, they repeated the flyby several times over to give the impression that the Soviet Union had a large number of operational aircraft.

deterrence failed, the US would be able to wage a nuclear war in the same fashion it fought World War II. Once translated into operational strategies, deterrence was an underplayed part of the military's mission as war plans pretty much looked like those of the German/Japanese bombing campaign (Sunday Punch). Thus, despite the successful resolution of bureaucratic dilemmas, the Air Force's doctrinal continuity showed signs of rigidity.

As the Soviet power to hurt the US gradually grew and vulnerability entered military thinking, the doctrine shifted somewhat towards deterrence. War was assumed to be initiated by a Soviet sneak attack (ruling out US prevention but not preemption), and deterrence itself was closely linked to being able to respond in kind after such a strike (second strike deterrence), i.e. deterring by making retaliation unavoidable. Not differentiating between the power to hurt (targeting cities) and the power to win (targeting enemy forces), operational strategies took all possibilities into account: both a Soviet conventional attack that escalates into nuclear war, and the aforementioned nuclear sneak attack on SAC. This master frame rested on SAC's traditional role as the first and last line of defense, which in turn necessitated the maintenance of a large bomber force, well-defended bases, a technological arms race in missile technology, and a fairly centralized targeting bureaucracy headed by the Air Force with almost exclusive control over the allocation of the nuclear stockpile. Since the Air Force could successfully claim that this frame translated Eisenhower's massive retaliation to operational policy—to strike "at places and with means of our own choosing" (Dulles, 1954a), "regardless of time, place or weather"²⁰⁶—the Air Force master frame enjoyed political support in budget negotiations.

²⁰⁶ Historical Division, Office of Information, Headquarters Strategic Air Command, History of the Strategic Air Command; History Study 73A: SAC Targeting Concepts, n.d. [circa 1959], Top Secret Source: Declassified in full by Interagency Classification Appeals Panel [ISCAP] Retrieved from: <http://www.gwu.edu/~nsarchiv/nukevault/ebb336/index.htm>

The focus of this chapter, the counterforce debate at the turn of the 1950s/1960s, differed from these early bureaucratic parries that framed the previous two cases. It combined both kinds of challenges: theoretical and political-material. On the political side, perceptions of growing parity between the two superpowers and the Soviet ability to hurt the continental US weakened the trust in the Air Force's interpretation of nuclear war as a knock-out blow to a nuclear inferior, which was coupled with weakening public support for massive retaliation (incidentally the key to the interservice truce). On the technological side, the Navy's new Polaris missile—and its newly interpreted wartime role through the concept of “finite deterrence”—offered a possibility to counteract these perceived shifts in the “balance of terror” (A. Wohlstetter, 1959), *while* rendering SAC's entire posture obsolete. This time, critical points raised by the Navy—and partly by the Army—proved to be debilitating for Air Force commanders: critics challenged core beliefs of airmen such as the superiority of manned bombers to other systems or the precision, effectiveness and professionalism of the air corps. The existing tradition that the Air Force could draw upon proved to be insufficient to justify policies that were now regarded as wasteful, non-credible, inhumane and suicidal.

For this reason, this particular dilemma necessitated a reinterpretation, mostly in terms of the nature of nuclear conflict with the Soviet Union and the specific mission the Air Force should fulfill in the US defense effort. The primarily conceptual nature of the dilemma increased the importance of strategic theorizing and forced the Air Force to rely more and more on RAND's expertise. As the chapter will show, Air Force officers' beliefs in the superiority of their own arguments was solid, the use of defense rationalist theories rather served instrumental goals for commanders like Gen. LeMay: essentially, RAND was charged with structuring the conceptual debate, and with devising “scientific” talking points that could support, underline and “prove” the Air Force discursive strategy.

Yet despite the strategic use of defense rationalism, this Air Force dilemma presented a perfect entry point for RAND ideas, since the problem had to do both with the framing of the Cold War and the US defense effort itself. Therefore, defense rationalist ideas underlying the counterforce debate successfully transmitted policy beliefs both into the Air Force and the Kennedy administration, contributing to the wide-ranging institutionalization and resulting longevity of defense rationalist thought. Crucially though, the process of persuasion attempted in this case was much more complex and less linear than in the other two cases. Counterforce has been part of military doctrine since the beginning of the nuclear era—plans also envisioned hitting the Soviet military—and the concept was also assessed at RAND at several points in the 1950s by a diverse group of individuals. These studies approached the idea from various angles, both as an exclusive strategy (city-avoidance), a war-winning strategy, or even as a deterrent (deterrence by denial). These studies were mostly non-commissioned explorations that represent a non-linear evolution of the concept, and were not systematically communicated to the Air Force. Yet RAND's previous experience with its patron could prepare analysts to consciously mold their own debate so that outputs fit the Air Force's current perception of strategy and military politics. The resulting passive persuasiveness of these texts facilitated RAND'S active persuasion attempts at the peak of the Polaris debate as defense rationalists were called upon by an Air Force seeking to legitimate itself and make sense of the new technology. How persuasion, both active and passive, assured the acceptance and use of defense rationalist ideas throughout this complex dilemma, and how they contributed to the reconceptualization of the Air Force tradition is the main topic of the chapter. The structure I follow remains the same: after a brief discussion of the policy environment I move onto the reconstruction of the evolution of counterforce within the defense rationalist community. Subsequently, I analyze the debate between the two services

and the retextualization of RAND's idea of counterforce by the Air Force. The chapter then concludes with a discussion of the McNamara revolution which included a wide discursive coalition around the victorious Air Force's new counterforce doctrine. This coalition bears increased importance from a theoretical point of view as it cross-cut important bureaucratic interests and its main narrative—devised by McNamara himself—even invoked moral arguments of American exceptionalism that resonated with civilian audiences.

7.2. Redesigning victory: The search for alternatives to massive retaliation

If technology alone determined the character of warfare (...) all wars in history would have become progressively more destructive. This evidently is not true. The nature of war depends (...) to a large extent upon belligerents' notion of victory.

/Hans Speier, Head of RAND's Social Science Division/²⁰⁷

Technological development like intercontinental missiles and miniaturized hydrogen bombs invoked growing fear in US decision-makers from the mid-1950s on. In late 1954, Eisenhower commissioned a special committee headed by his Presidential Science Advisor, James Killian, president of MIT that was to assess US technological capability to mitigate vulnerability. The Committee's 1955 report used chilling language and heavily invoked the vulnerability narrative, citing the possibility of "death and destruction on a scale almost beyond knowing, and certainly beyond any sensibility to shock and horror that men have so far experience." It added that "for the first time in history, a striking force could have such power that the first battle could be the final battle, the first punch a knockout. (...) the possibility of total surprise attack cannot be excluded" (Technological Capabilities Panel of

²⁰⁷ In *Bulletin of Atomic Scientists*, November 1955, quoted in Reinhardt, 1958.

the Science Advisory Committee, 1955). The prevalence of vulnerability in public discourse, coupled with growing Soviet numerical strength, hastened the erosion of public trust in massive retaliation. With growing Soviet capabilities, the Eisenhower administration's policy of justifying reductions in defense spending in favor of nuclear weapons required reducing the new threat, and the obvious way to do so was to reinforce existing policies, i.e. to improve the credibility of massive retaliation.

To remedy this problem, the Eisenhower administration resorted to a number of techniques. These included delegating nuclear use authority to theatre-level commanders, or simply refusing to answer any questions about credibility: Eisenhower frequently gave the impression that the question did not make sense to him or made ambiguous statements on the subject (Wells, 1981, p. 31). These techniques can be best understood within the popular chicken game²⁰⁸ metaphor where the competing teenagers can secure a "win" by taking the wheel out of their car (delegation, i.e. losing the ability to make decisions) or by appearing drunk (not understanding remarks about the potential dangers of the game).²⁰⁹ Wells even argues that these deliberate techniques were the source of the intellectual distaste for massive retaliation as a simplistic pseudo-strategy.²¹⁰

Despite Eisenhower's efforts, vulnerability had become a central element of the general policy debate, and civil defense the topic of public discourse. In order to assess the possibility of vulnerability mitigation through public shelter programs, Eisenhower commissioned a study the Security Resources Panel of the President's Science Advisory

²⁰⁸ The popular story used for this simple two-player game is that of two teenagers racing their cars against each other. The first one to swerve is the chicken, the other the winner. The game is often used as a metaphor for nuclear brinksmanship as both sides want to win *and* are desperately trying to avoid a collision that would kill them both.

²⁰⁹ An extreme version of this logic was the idea of a doomsday machine—featured in *Dr. Strangelove*—that would free nuclear escalation from "human meddling".

²¹⁰ Nevertheless, Wells maintains that the unconditional launch of SAC's forces at the sign of Communist incursions was never truly a feature of massive retaliation.

Committee in early 1957. Though asked to evaluate civil defense, the Committee's focus was soon shifted to the general question of vulnerability. The result was the paper entitled "Deterrence and Survival in the Nuclear Age" (Gaither Committee, 1957), or as it is better known (for the head of the committee), the Gaither Report.²¹¹ With Wohlstetter as one of its scientific advisors, the Gaither Committee practically reiterated RAND ideas on deterrence and vulnerability: it argued that American security rested on the deterrent SAC provided, but since SAC proved to be vulnerable, the report called for massive improvements.

Eisenhower and Dulles were unimpressed by the report and argued that the current Soviet threat does not justify the expenditures the document called for. However, the report achieved wide public attention when it got leaked to the press right after Sputnik, spurring the famous "missile gap" hysteria based on the false assumption shared by the US public (and decision-making elite) that the Soviet had surpassed the US in the numerical arms race. Since "missile gap" views on Soviet threat matched Air Force estimates of Russian forces—which were consistently higher than CIA estimates²¹²—massive retaliation gained public opposition, leading to Dulles publicly claiming in 1958 that massive retaliation had outlived its usefulness (May, 1998, p. 282).

As I mentioned, the end of the Gaither Committee's mandate coincided with the launch of the world's first artificial satellite, Sputnik. Sputnik was not simply a matter of broken national pride, but a sign of Soviet capabilities: the technology required to launch a satellite into orbit was also suitable for intercontinental ballistic missiles. Many Americans thought that such weapons, once outfitted with H-bombs, would shift the strategic balance in

²¹¹ For a detailed analysis see Halperin, 1961; Kaplan, 1983, Chapter 8; Roman, 1995; Snead, 1999.

²¹² Arguably, RAND was wrong about the missile gap—and contributed to its birth through the Gaither Committee—because the CIA stopped the dissemination of its National Intelligence Estimates to contracting agencies in 1958, and there on RAND had to rely on Air Force/SAC estimates exclusively (for more detail see Stevenson, 2008, Chapter 2).

favor of the USSR, and render the bomber-centered US arsenal useless. Sputnik soon became one of the symbols of the missile gap, while the Soviet Union sought to capitalize on the mass hysteria in the US. Khrushchev gave the following remark in 1957:

The Soviet Union possesses intercontinental ballistic missiles. It has missiles of different systems for different purposes. All our missiles can be fitted with atomic and hydrogen warheads. Thus, we have proved our superiority in this area. (Quoted in Air Intelligence Digest, 1959)

And a year later, he added a thinly veiled threat to his boast, pointing out the vulnerability of the continental United States:

I think it is high time for the American Strategists to come out of their fool's paradise that in the event of a military conflict the territory of the United States would remain invulnerable. For a long time now this has not accorded with reality and has been nothing more than wishful thinking on the part of American generals. In point of fact, the Soviet Union today has the means to deliver a crushing blow to the aggressor at any point of the globe. After all, it is not a mere figure of speech when we say that we have organized serial production of intercontinental ballistic rockets. (Quoted in Air Intelligence Digest, 1959)

Even though Khrushchev's claim was a pure bluff, nobody could call him on it—as I noted earlier, Air Force estimates supported the Soviet claim to superiority—and the humiliation of Sputnik and Khrushchev's rhetoric eventually sealed massive retaliation's and became the central topic of the 1960 presidential elections as influential Democrats, including former Secretary of the Air Force Sen. Stuart Symington or Sen. John F. Kennedy repeatedly accused the Eisenhower administration of letting American air power fall behind the Soviets (for more, see Roman, 1995).²¹³

Mounting opposition against massive retaliation called for a new strategy, both in terms of declaratory and operational policy. The core strategic problem was how to avoid total nuclear war that, in the age of the hydrogen bomb, not only threatened with the destruction of

²¹³ Roman (1995) also notes that while Symington and Kennedy strongly supported Polaris, they had no interest in constraining SAC's role in nuclear strategy.

a few million Americans, but society as a whole (cf. the mounting popularity of civil defense). An additional concern was that if the US was to adopt some sort of limited response strategy to Soviet provocation, then how this posture could be signaled to the enemy so that he does not escalate the conflict on its own?

Vulnerability became a central issue to military planning—despite lackluster implementation when it came to base defense—and the Joint Chiefs of Staff started assessing minimum deterrence, counterforce and mixed, Sunday Punch-like targeting approaches that included both civilian and military targets. Here, the increasing destructive power of the Soviet Air Force opened another question that was treated axiomatically within the Air Force tradition: once we secured that our forces survive a sneak attack, then what do we do? Put differently, with nuclear war becoming more and more destructive, how should war be waged with an equal enemy if deterrence fails? Thus for many prominent policymakers in Washington DC and the Pentagon, the nature of warfighting became a new issue. As the reader may recall, on the level of declaratory policy, massive retaliation signaled uncontrolled escalation to nuclear hostilities at the sign of *any* Soviet incursion. Translated to operational strategy, this was nothing else than Sunday Punch, a “orgasmic”—to use the Freudian term—single strike atomic war against basically anything with a hammer and a sickle on it. But once weapons that were meant to wage war invited retaliation in kind or even complete escalation to total thermonuclear war, existing targeting policies and war plans suddenly seemed obsolete.

The defense rationalist community had a ready-made answer to this problem: limited war. Returning to the question of war fighting, strategist at RAND—especially Bernard Brodie and William Kaufmann—argued that a full scale attack did not seem to be necessary

or even sound anymore—instead, one should think about limited or sequential use of the arsenal and the control of war (Trachtenberg, 1991, p. 318). Control on the one hand required non-nuclear option—which would have meant a conventional buildup and the defeat of Eisenhower’s national security philosophy—and on the other hand required refined nuclear targeting in case deterrence failed. Specifically, a counterforce strategy was suggested which would not focus on hitting enemy cities in retaliation (thereby escalating the conflict), but would fight enemy forces instead. Yet in spite of the availability of RAND’s counterforce strategies *with* city-avoidance (both on moral and strategic grounds), many Air Force officials considered counterforce only as an addition to existing counter-city strategies (i.e. to the counter-economy Sunday Punch), and Le May remained skeptical of any strategy that would avoid Soviet cities (May, 1998, p. 269).

Air Force opposition to RAND ideas on counterforce was not due to unfamiliarity: counterforce in its most limited understanding had been part of SAC war plans since 1954 a “mixed strategy” where Soviet military targets were just one part of a Sunday Punch²¹⁴ that would turn Russia “a smoking radiating ruin at the end of two hours” (Rosenberg & Moore, 1981).²¹⁵ The problem with the RAND approach rather was that the Air Force simply did not believe in restraint when it came to total war with the Soviets. Kaplan reports that, when first hearing about the idea of limiting the destructiveness of war (through no-cities counterforce), General Power, commander of SAC (1957-1964) exclaimed: “Why do you want us to restrain ourselves? Restraint! Why are you so concerned with saving *their* lives? The whole idea is to *kill* the bastards” (quoted in Kaplan, 1983, p. 246, original emphasis). This lack of restraint in Air Force thinking not only applied to the nature of targets, but also to the use of forces: with

²¹⁴ With the People’s Republic of China, counterforce was the primary targeting logic (Wells, 1981, p. 37).

²¹⁵ The gradual inclusion of a widening range of counterforce targets into Sunday Punch plans exemplifies the uncontrolled expansion of targeting philosophies that lay the grounds for the overkill of the first SIOPs.

a mindset that believed nuclear war would be spasmodic, reserving forces to keep cities hostage or even just to gradually escalate the war seemed like a foolish waste of resources. If it had come to war, it would have been total till the last man (and hopefully woman) standing.

These explorations of possible operational alternatives to Sunday Punch were however soon overshadowed by a “new round” of the interservice rivalry between the Navy and the Air Force that dragged RAND’s defense rationalists into the middle of the quicksand that is bureaucratic politics, eventually prompting the re-interpretation of the nature of deterrence and warfighting under the Kennedy administration.

7.3. Submarines and suicide pacts: The renewed interservice rivalry

The Soviets are our adversary. Our enemy is the United States Navy.
/General Curtis E. LeMay, USAF/²¹⁶

With the advent of Soviet nuclear capabilities and the considerably more destructive hydrogen bomb technology in the early 1950s, and especially with the development of ballistic missiles, attention shifted from simple warfighting towards deterrence and limiting the destructiveness of nuclear war. Yet, as I already noted, war plans changed little. General LeMay so defined SAC’s unchanged mission in front of the 1956 Congressional Subcommittee Hearings on Air Power:

The main object of the Air Force in the past has been to maintain a deterrent force (...) that is large enough and effective enough that no matter what the enemy does, either offensively or defensively, he still will receive a quantity of bombs or explosive force that is more than he is willing to accept. (Quoted in Reinhardt, 1958, p. 5)

²¹⁶ Popular anecdote about LeMay correcting a young officer who kept referring to the Soviets as “the enemy” (Lindquist, Vincent, & Wanna, 2011, p. 124).

As I mentioned, by the end of the 1950s, the vulnerability/secure second strike narrative that the Air Force used to justify its budget requests for hardened silos and bases, as well as dispersal and early warning policies, started to backfire. The leaked Gaither report, commissioned by President Eisenhower at the time of the 1957 Sputnik affair, gave a pessimistic view about the strategic situation and SAC's vulnerability as a deterrent, while spurring the missile gap hysteria about a supposed gap between the US and Soviet nuclear arsenal (see Halperin, 1961; Snead, 1999). The anxiety Sputnik and the missile gap induced in the everyday American strengthened critiques of massive retaliation, the official strategy by then considered non-credible due to Soviet offensive forces that could strike the US. Thus, emerging parity between the US and the USSR needed to be interpreted along three crucial questions: what to do when deterrence fails? What should be the new strategic doctrine and how should it be translated into operational policy?

With the foundations of massive retaliation shaking, the Navy no longer had a vested interest in maintaining the delicate interservice truce: the rival service used the missile gap to argue that since the Soviets could develop a large enough intercontinental ballistic missile (ICBM) fleet which could knock out SAC, the Air Force was no longer capable of fulfilling its mission. The same argument the Air Force previously used in budget negotiations could thus be turned against it: numerical parity and the expansive weapons requisitions it implied no longer mattered. Even if SAC could be strengthened, some degree of uncertainty would remain. Chief of Naval Operations (CNO) Admiral Arleigh Burke rejected Air Force strategies arguing that they were excessively costly, potentially dangerous and still not credible due to SAC's by then well-known vulnerabilities. Instead of the bomber fleet, a small force of Polaris submarines targeting a "finite" number of Soviet cities could stabilize deterrence. Polaris was a submarine-launched ballistic missile (SLBM) that could be fired

undetected from a submerged vessel. Since the missile's accuracy was rather low, it suited counter-city targeting that maximized "bonus damage". As a counter-city weapon, Polaris favored minimum deterrence: maintaining a limited nuclear arsenal that could survive a surprise attack and then be used to hit enemy cities in retaliation. Admiral Burke first called for minimum deterrence as early as in 1956, famously arguing metaphorically that "military superiority in unlimited war no longer connotes ability to 'win'—nobody wins a suicide pact. Thus all-out war is obsolete as an instrument of national policy."²¹⁷ The Polaris system on the other hand could offer security which "when achieved through mobility and concealment" could even discourage an arms race.²¹⁸ This line of argumentation bore huge potential political costs for the Air Force since it fit President Eisenhower's philosophy perfectly: achieving deterrence at the lowest possible costs, and focusing resources on the economy instead.²¹⁹

The Navy's "alternative undertaking", framed as the sole objective of nuclear offensive forces, shocked the Air Force echelon. "There is an all-out battle going on right now", officers claimed, and the Navy's purpose was nothing but to reduce Air Force programs.²²⁰ Air Force commanders quickly realized that the solution to the problem lay in reframing deterrence. It was argued that the Air Force needed to be "much concerned with

²¹⁷ "More Advantageous Than Simple Revenge" GSB [George S. Brown] to Air Force Chief of Staff Thomas White, 30 March 1959, enclosing "CNO Personal Letter No. 5 to Retired Flag Officers, 'Summary of Major Strategic Considerations for the 1960-70 Era,'" 30 July 1958. Library of Congress, Manuscript Division, Thomas White Papers, Box 28: Navy.

²¹⁸ Roy L. Johnson, Chief of Naval Operations, Department of the Navy Subj: Unclassified Summary of NAVWAG Study NO. 5 (National Policy Implications of Atomic Parity) Encl: (1) Summary of Major Strategic Considerations for the 1960-70 Era (NWG) 11-58 22 Jan 1958. National Security Archives, Fred Kaplan Papers, Box 1, Folder 53: Air Force vs. Navy/POLARIS.

²¹⁹ It is little known that the Air Force not only had to compete with other branches in the wake of the Sputnik scandal, but also with the newly founded NASA, created on October 1, 1958 to rival Soviet technological advancements but on a peaceful basis.

²²⁰ Maj. Gen. USAF Hewitt T. Wheless' letter to Maj. Gen. Charles B. Westover, Director of Plans, SAC, 13 May 1959. National Security Archives, Fred Kaplan Papers, Box 1, Folder 30: "No cities" Graduated Deterrence.

words if we are to defend successfully the concepts which we believe to be fundamental to national security.”²²¹ Minimum deterrence was called “purely a bluff strategy” (Futrell, 1989, p. 624) and the Air Force strongly emphasized that waging and surviving war is essential for deterrence, thus an “optimum mix”²²² strategy – a combination of military, industrial and urban targets that requires a diversified posture – would be required instead of minimum deterrence. The Air Force position was already framed in terms of an implicit counterforce strategy—presented as “one leg” of an optimum mix, but *without* a city avoidance element because the idea has been available to the military since the mid-1950s. In their speeches, Air Force leaders tried to depict Navy ideas as risky –through the prolific use of the above poker metaphor—for rejecting “war-winning” objectives in a potential nuclear war, something that made no sense from the military point of view, actually leading to a presidential endorsement of optimum mix.

President Eisenhower himself was weary of excessive force levels, yet as a veteran of the previous war, forsaking offensive forces made little sense to him. Moreover, influential Democrats in Congress like Senator Kennedy or former Secretary of the Air Force Stuart Symington criticized the administration for being weak on the missile gap. Kennedy even stepped up his defense hawk position as the hysteria intensified to aid his 1960 campaign. Democrats thus had no interest in constraining the Air Force even though they supported Polaris. The endorsed “optimum mix” targeting solution, however, was unsatisfactory for both services. The Navy could not unseat the Air Force from its hegemony in nuclear targeting, and the Air Force felt more and more uneasy as the Polaris project neared completion. The debate raged on in the preparatory process of the commissioned single

²²¹ Ibid.

²²² In essence, a mixed strategy meant a counterforce strategy, but lacked the aforementioned moral considerations, i.e. a complete avoidance of cities.

Integrated Operational Plan (SIOP)—the aforementioned massive war plan that sought to coordinate a service-wide general war strategy (Ball & Toth, 1990; Rosenberg, 1983a).

General White saw the source of the theoretical debate in the black-and-white distinction between the Navy and Air Force options. In a May 1959 letter he argued that the dichotomy of positions was on the one hand confusing for the “layman” as it presented an “all-or-nothing” picture, and on the other hand it implicitly validated the Navy’s restrictive position. This could not only lead to the validation of Polaris, White feared, but as the next step, the elimination of “everything other than Polaris.”²²³ White interpreted the Navy’s challenge though the Air Force tradition by stressing that “the significance of this inter-service controversy is the danger it represents to national security. I am convinced that the quickest way for the United States to lose its life and freedom would be to adopt the city strategy.”²²⁴ So, within the traditional narrative, to challenge the Air Force’s hegemony still meant to endanger national security.

In order to gain an upper hand in the “controversy”, White and his staff needed a conceptual tool that could present a nuanced positions in-between to extremes, one that would still be favoring the Air Force. Counterforce, as developed at RAND could fulfill this role, and due to the set of persuasive arguments associated with the idea—most importantly its deterrent implications, flexibility, and even its “humanism”—could shift the interservice debate to Air Force “home base”, i.e. problematizing the requirements and feasibility of counterforce strategies, not the core strategy itself.

²²³ Targeting Philosophy, Top Secret, Letter, May 11, 1959. National Security Archives, Collection: U.S. Nuclear History, Item Number: NH00210.

²²⁴ Ibid.

7.4. Counterforce at RAND

Counterforce, i.e. the idea of attacking the enemy's forces is a concept as old as warfare itself, and it was part of all US war plans for the nuclear era. Yet as an exclusive targeting strategy, it was an oddity within the deterrence discourse of the early Cold War. At the time when the Air Force encountered the Polaris dilemma, the question of minimum vs. maximum deterrence was still an unresolved issue for defense rationalism. For Randites in particular, the specific question at hand was quite old: "thinking about the unthinkable" or whether nuclear war was "winnable" at all. Counterforce as an idea was first proposed as a control mechanism in case deterrence failed. Wars can be limited in many ways, by territory, by the size of forces, the type of weapons employed etc. Counterforce specifically aimed at limiting damage to the United States by limiting war in terms of the targets struck, but the ideas of stabilizing deterrence and offering a war-winning strategy were not yet completely reconciled.

As conceptualized at the RAND Corporation, no-cities counterforce represented the epitome of the science of warfare, combining different streams of defense rationalist research; and, through a decade of conceptual evolution, it became the strategic alternative to Sunday Punch/massive retaliation. This evolution, however, was not linear: counterforce had numerous iterations with diverse strategic implications. Counterforce's intellectual roots can be traced back to the research Bernard Brodie conducted before his time at RAND, working as a consultant for General Hoyt Vandenberg in the Air Force Staff. In his work, Brodie discussed the possibility of discriminate targeting, instead of the full scale "Sunday Punch" attacks. For Brodie, the underlying strategy did not yet mean counterforce specifically, merely the avoidance of cities (Kaplan, 1983, p. 204). Similar conclusions were reached at RAND's Social Science Department in the 1948 "WARBO" (short for War and Bombing) study on

alternative bombing strategies.²²⁵ Yet, due to the academic hostility towards RAND's Washington DC-based social scientists, systems analysts in Santa Monica largely neglected these explorations.

The conceptual breakthrough nevertheless came from a historian of the “essay tradition”: Victor Hunt. Hunt not only suggested that cities should be avoided, but also that enemy forces should be targeted instead. The new strategic idea was both aimed to achieve psychological effects (city avoidance for pushing the Soviets towards avoiding US cities) and to reduce the risk to American cities and nuclear forces in case of a Soviet retaliatory strike (damage limitation through counterforce strikes). Hunt also outlined the basics of *intra-war deterrence* by arguing that if the US would avoid cities, elements of deterrence could be extended even after war broke out—in essence, Russian cities would be held “hostage” but retained US forces. (for a canonized version see Schelling, 1960) Hunt's pioneering work provoked the interests of RAND analysts coming from various disciplines, who began discussing his idea in the Strategic Objectives Committee (SOC), marking the first fruitful cooperative effort between “hard” and “soft” scientists.²²⁶

Though the SOC was the home of many interesting debates—most notably between Brodie and mathematician John Williams—it failed to achieve a consensus on basic issues and questions of theory. As a solution, Bernard Brodie, Andrew Marshall and WWII targeter Charles Hitch co-wrote a 1954 report entitled “The Next Ten Years” that was both critical of massive retaliation and political containment. More importantly, the report called for the

²²⁵ See ROHP interview with Hans Speier, p. 51.

²²⁶ The group had Bernard Brodie (political science), James Digby (engineering), Arnold Kramish (physics), James Lipp (defense analysis), Andrew Marshall (economics), Alexander Mood (mathematics) and John Williams (mathematics) as permanent members.

examination of the possibility of deterrence failing. The authors called for the “qualified use of atomic weapons” for which counterforce was considered to be the most suitable strategy:

all our military power, including atomic weapons, shall in the event of war be directed to the destruction of the enemy military forces. Strategic bombing of cities would be withheld except as a retaliatory measure. In a sense this conception carries the deterrence role of SAC into the hostilities phase. (Brodie, Hitch, & Marshall, 1954, p. 24)

Curiously, counterforce was not unequivocally endorsed by the authors because of fears that lowering the destructiveness of war would “increase the likelihood that it will occur” (Brodie et al., 1954, p. 25). This concern signifies an important theoretical problem: counterforce as a war fighting strategy was considered to be antithetical to deterrence, further shifting defense rationalist attention to the question of what to do if deterrence fails. “The Next Ten years” signaled another important step in the development of the idea of no cities counterforce with its emphasis on the political elements of nuclear war, most notably alliance (NATO) politics and the relationship between nuclear strategy and politics, i.e. nuclear war as a bargaining process, rather than a quick exchange of nuclear strikes.

Following Brodie et al., others at RAND took up the idea of counterforce: James Digby (1955) did a study on counterforce beginning in 1954, wherein, instead of avoiding cities and intra-war deterrence, he emphasized the importance of what he called “counterforce missions” – counter military attacks that the US should launch once it reaches a “point of no return” with the Soviet Union in a local war (“explosive war”). This approach to counterforce made more sense to military officers than city avoidance, which was something SAC commander General LeMay, who was socialized in the incendiary bombing of Japan, generally resisted. Digby reiterated the importance of urgency: military targets enjoyed priority since cities were strategically less important and could be easily hit in a later stage of the war. This, however, invited doubt about the desirability of counterforce which, in this

version, entailed a first strike on Soviet forces. The mere ability of a disarming attack would run the danger of offsetting the strategic balance—the central concept of Albert Wohlstetter’s (1959) “The Delicate Balance of Terror”. Digby preempted criticism by arguing that the suggestions in the basing project (R-244-S, R-266) on base defense would counter these provocative effects by making the Soviets believe that a preventive sneak attack could not be successful. Coupled with growing Soviet caution, Digby maintained, war would rather come in its explosive form, making counterforce the best possible strategy.

During this early stage, however, counterforce was only theoretically explored and not communicated towards the Air Force since the idea was considered to be unfeasible due to problems of weapon accuracy and intelligence performance (i.e. not knowing where Soviet missiles and bases were hidden). Moreover, it was often considered to be *antithetical* to deterrence (see e.g. Brodie, Hitch, & Marshall, 1954). Though counterforce remained part of the internal expert discourse throughout the 1950s, it was nevertheless often opposed on grounds of feasibility and desirability (provocativeness)²²⁷—counterforce was still seen as primarily a damage limitation strategy, not a deterrent or a war-winning strategy.

Parallel to RAND efforts, the New Approach Group of the Air Force HQ was also examining the possibilities of counterforce and their strategists did indeed advocate further research into the option. Before SOC disbanded, Digby managed to brief a few Air Force officers, including SAC commander LeMay who “listened quite sympathetically” (Digby, 1990, p. 15). However, as mentioned previously, Air Force officers rather saw counterforce as an addition to counter-city capabilities and were bogged down in the mindset of “Sunday Punch”. Two of the notable exceptions were retired colonel Theodore Walkowicz (1955), who, after correspondence with Digby, openly endorsed counterforce in a 1955 *Air Force*

²²⁷ For criticism, see for example the basing and vulnerability studies, R-244-S and R-266.

Magazine article; and colonel Richard Leghorn who denounced city-targeting on moral grounds in his article “No need to Bomb Cities to Win War” (Leghorn, 1955). Leghorn called for counterforce because it was strategically sound and in accordance with “accepted principles of justice”. These rare examples not only point to a minority opinion within the Air Force, but also foreshadow the wide publicization of nuclear strategic issues from the late 1950s onward. But public endorsement by military officers was not the only reason for ideas of counterforce reaching a widening audience. As I discussed in the previous chapter, as soon as R-266 was finished in 1954, RAND analysts—led by Albert Wohlstetter—carried on with their presentation tour to disseminate findings to relevant authorities in the hopes of encouraging the adoption of their policy proposals. These presentations enabled Randites to share their views not only on vulnerability, but also on counterforce strategies. After all, targeting was the next logical concern once a second strike capability was secured.

At RAND, questions of limiting the damages of war in case deterrence failed received increased attention in the wake of the Sputnik crisis. As Marc Trachtenberg (1989) explains, the choice between stability and damage limitation was the basic problem in the defense rationalist community. A synthesis of damage limitation and war termination was attempted by Andrew Marshall, Nathan Leites and Andrew Goldhamer who co-wrote a study assessing possible nuclear strategies. In it, the authors argued that

conflict between the requirements for deterrence and those for conducting war is less severe than is sometimes assumed. Few measures for increasing deterrence lessen effectiveness for fighting war; and few measures for fighting war lessen the effectiveness of deterrence. (Leites, Marshall, & Goldhamer, 1959, pp. v–vi)

The study signified the first comprehensive attempt at applying the science of warfare to the question of counterforce, and synthesizing it with other defense rationalist ideas on deterrence. Assuming that a Soviet sneak attack would start the nuclear war, the study

prescribed Wohlstetter's base defense measures, as well as counterforce—as understood in Brodie's, Hunt's and the SOC's works—as required strategy. Using game theory to compare possible targeting schemes, the authors found that population targeting produces the worst results. They instead suggested either countermilitary targeting (with emphasis on “bonus” damage), or countermilitary targeting with a reserve force. However arbitrary the numerical data used, the study was a qualitative study on counterforce that could please internal opponents of the “essay tradition”.

In order to directly apply to potentially resistant military commanders, first wave city targeting was resisted on rational grounds—the authors stated that “it is doubtful wisdom for the United States to indulge in such luxuries as vengeance and retribution, while leaving SUSAC [Soviet Union Strategic Air Command] largely untouched” (Leites et al., 1959, p. 156). Nevertheless, even though counterforce targeting was praised, the authors endorsed a mixed strategy with “bonus damage” in their conclusion. Goldhamer, Leites and Marshall listed a number of benefits for targeting Soviet cities, ranging from bargaining levers to demoralizing effect. Although considered the most effective, a mixed strategy raised concerns about intra-war deterrence: “the civilian damage inflicted by the population component of the Mixed Target Strategy might make the war harder to terminate after the US reply than would be the case” for a pure counterforce strategy. Though a moral step back from no cities due to its endorsement of “bonus damage”, the study was an important stage in the development of counterforce as dismissed pure city targeting on strategic grounds that were acceptable for the Air Force – “bonus damage” was already a crucial factor in targeting, and mixed strategies could be used as an argument against the Navy's minimum deterrence-centered Polaris program. Additionally, the authors argued that counterforce is both compatible with deterrence and the benefits of avoiding cities did not depend on striking first.

The stability of deterrence was also a recurring concern for Albert Wohlstetter. Oddly, even though targeting was a logical next step to consider after the US strike force was sufficiently defended, he initially did not consider counterforce options in his vulnerability research: in the basing study's follow up, "R-290 Protecting U.S. Power to Strike Back in the 1950's and 1960's", he still argued that the "principal deterrent (...) must be our ability to destroy their [the Soviets'] cities" (A. Wohlstetter, Hoffman, & Rowen, 1956). Wohlstetter was a critic of counterforce due to the implied threat to the strategic balance within the idea. His opinion changed with time: in a 1959 RAND research memorandum entitled "Objectives for the United States Military Posture" (co-authored with Henry Rowen), he offered a solution to this problem: second-strike counterforce. Wohlstetter and Rowen argued—furthering their solution to the vulnerability dilemma in R-266 and R-290—that the key to a successful counterforce strategy was a well-protected bomber and ICBM fleet, as well as a secured the "command and control" aspects of leadership, i.e. the ability of US leaders to make sound decisions during hostilities. These two aspects of defense were key to a war-fighting capability. Thus, Rowen and Wohlstetter, while reconciling stability and counterforce, also successfully combined counterforce with base defense and reflected the evolving attitude among defense rationalists that saw nuclear war as a bargaining process where the enemy can be persuaded to avoid American cities (damage limitation).

In its mature form, counterforce was conceptualized around the primary metaphor of necessity: as a strategy that was needed in case deterrence failed, but precisely because it was capable of "winning" a nuclear war, it was also essential for credible deterrence. As Hirshbein (2005, p. 141) notes, necessity is one of the most overused terms in deterrence theory. It

likens scenarios and actions to “compulsions foisted upon decision-makers”, i.e. situations where they do not have a choice. Logical necessity in counterforce begs the question why one would retaliate when deterrence fails? Defense rationalists explain this problem away through the aforementioned concept of intra-war deterrence, or deterrence as a bargaining process (often presented in a chess metaphor). According to this narrative, nuclear war would not be “spasmic” (cf. Kahn, 1960), but would involve a series of nuclear exchanges. The “no-cities” element of counterforce gains its importance at this juncture. First, avoiding cities in retaliation could communicate consistency in US intentions and could persuade the Soviets to avoid US cities in return. Second, by knocking out the Soviet military while avoiding cities, SAC could use the remaining cities as bargaining chips to end the war on “favorable terms.” Finally, by targeting military forces and not cities, counterforce could theoretically be used at any level of intensity of a conflict without automatically escalating hostilities to all-out nuclear war. The bargaining primary metaphor was almost the exclusive brainchild of Thomas C. Schelling who used his knowledge of game theory to codify the concept in essays such as his famous *The Reciprocal Fear of Surprise Attack* (Schelling, 1960), where he used the metaphor of a “cooperative, non-zero sum game” to conceptualize the logic of nuclear war. This nuanced conceptualization of deterrence-as-war-fighting delivered what Chief of Staff White wanted: something in-between finite deterrence and all-out war. It relied on the kind of maximum deterrence and the brand of systems analysis that Albert Wohlstetter developed at RAND, one that assumed that the hydrogen bomb was not an “absolute weapon”. Since its effects could be measured, they were finite and therefore could be limited, so it was important how wars would be fought (Trachtenberg, 1989, p. 312).

Reports that carried early and mature iterations of the idea were sent to different Air Force officials, yet no systematic dissemination campaign was mounted behind them.

Counterforce as an idea, albeit a vague one, was therefore available to the Air Force, yet no systematic dissemination efforts were mounted at RAND to persuade the Air Force about its adoption. This non-linear evolution of the idea therefore nicely demonstrates RAND'S position within the Air Force as an institute that could engage in basic research without any prior patron commission. It was only at the peak of the Polaris debate that these ideas were called upon.

7.5. Changes in the Air Force's Discursive Strategies

Meanwhile, as the Polaris program neared its completion, the Navy took its case to Congress, arguing that the land-based forces of the Air Force cost too much yet remained vulnerable. In response, the Air Force launched a three-pronged response attacking finite deterrence, the invulnerability of Polaris and also making a bid for control over the system. The conceptual key to this campaign was to detach counterforce targeting from countervalue or countercity targeting as a stand-alone strategy – in essence, giving up the Sunday Punch mindset deeply rooted in Air Force tradition. As for defense rationalism, communicating counterforce to the Air Force was again a conflictual process, since defense analysts had actually praised the merits of Polaris on several occasions (e.g. Leites et al., 1959).

As a reiteration and summary of RAND thinking, RAND analyst William Kaufmann prepared a study entitled *The Puzzle of Polaris* in February 1960 that, after positive initial reactions, was forwarded to General White.²²⁸ Apart from explaining RAND's position on counterforce, Kaufmann argued for Polaris as a possible deterrent, but emphasized its

²²⁸ Memorandum, William Kaufmann to George Tanham, "The Puzzle of Polaris," February 1, 1960. Mentioned in: Letter, Kaufmann to White, February 18, 1960. Library of Congress, Manuscript Division, Thomas White Papers, Box 36, Folder: "Missiles/Space/Nuclear".

vulnerability and its questionable credibility towards European allies, effectively stating that a pure Polaris force would be a step back in terms of overall deterrence. Hence Kaufmann suggested again a mixed force with a counterforce capacity with Polaris submarines threatening Soviet cities for interwar deterrence (May, 1998, pp. 352–354). The subsequent adoption of Kaufmann’s study marks a clear and significant shift in the Air Force’s discursive strategy. Finally in possession of a conceptual framework that could link previous arguments, the Air Force could argue on a scientifically authoritative basis.

Two Air Force commanders played a pivotal role in translating defense rationalist ideas to policy: Brigadier General Noel Parrish, wartime commander of the Tuskegee Airmen, and Colonel Donald F. Martin. Parrish especially had the necessary bureaucratic power and authority to disseminate and retextualize RAND’s no cities/counterforce. Parrish’s personal views on city-avoidance were especially crucial for communicating the RAND-preferred understanding of counterforce. The Parrish summarized his personal views to General White, some of which were shared by others at the Service, on rational grounds that resonated well with what the tradition held about weapons acquisition, budgeting and war:

Not even in the Air Force have we always understood that the ability to destroy cities and people, while relatively easy, is no solution to the military problem. We have not always appeared to recognize that unless the destruction of populations can somehow be avoided it is foolish to plan for the subsequent destruction of military systems, since the relatively few survivors of a population-killing contest would no longer be concerned. Our continued commitment to targeting for a ‘spasm’ war left no real justification for highly expensive offensive weapons whose principal advantage is selectivity in targeting. Only for extended *counterweapon* operation could the extra cost of the B-70 and nuclear power [nuclear powered planes in development] have been justified.²²⁹

²²⁹ Kaplan papers Box 1, Folder 51: Air Force and Counterforce . Noel Parrish’s memo to Gen White 7 April 1961: “Post-Missile Gap and Other Implications of the Current Budget”. Emphasis added.

The two officers started working on the idea and presented it to Air Force commanders, including Gen. White, and also to RAND. Parrish and Martin tasked William Kaufmann to evaluate their study and present RAND's position. Kaufmann's evaluation then finally led White to commission a study from RAND on the "feasibility and requirements of counterforce"²³⁰ in July 1960 that formed the conceptual basis of the Air Force's revamped discursive strategy in the interservice debate. Once the study was done, Kauffmann embarked on an "incredibly hectic" year of briefings across the Air Force echelon while he met regularly with White for updates (May, 1998, p. 359).

Parrish's and RAND's ideas were disseminated in the form of talking points to commanders via the issues of the *Air Force Information Policy Letters for Commanders*. When presenting to Air Force and external audiences, commanders were instructed to rely on Parrish's presentation and RAND's materials "in a simplified form."²³¹ Mature counterforce as presented by the Air Force can best be identified in documents used throughout the early 1960s that were meant to inform commanders of the shift both in strategy and its presentation, like the widely circulated leaflet *This is Counterforce*²³². These documents reiterated RAND arguments in a coherent form, and directly targeted Navy points. Counterforce gained both scientific-rational and historical legitimacy. "Tested" through countless wargames, it became the "most rational military approach" at every level of war, "essentially sound and fundamental", one that is built on ideas as old as the history of war, "as valid un the aerospace age as it was in the days of the cross bow [sic!] or the musket ball." Targeting enemy forces is

²³⁰ [RAND's Plans for Counterforce Study; Includes Cover Memorandum and Thomas White's Reply] Confidential, Letter, July 25, 1960, 4 pp. National Security Archives, Collection: U.S. Nuclear History, Item Number: NH00131.

²³¹ Memorandum for Gen. White 21 Oct. 1960, by Robin N. Ginsburg. National Security Archives, Fred Kaplan Papers, Box 1, Folder 30: "No cities" Graduated Deterrence.

²³² "This is Counterforce", paper prepared by the Office of the Deputy Director of Plans for Aerospace Plans, Headquarters USAF, 7 February 1963. National Security Archives, Fred Kaplan Papers, Box 1, Folder 51: Air Force and Counterforce.

what the military is supposed to do, therefore counterforce is “traditional and fundamental and with few historical exceptions it has always been that way.”²³³ This line of reasoning is a clear sign of ideational convergence between the military and defense rationalists in its denial of the *sui generis* nature of the nuclear age.

According to the new discursive strategy, finite deterrence and city/countervalue targeting on the other hand were the product of a specific era, the age of nuclear monopoly. Destroying the enemy’s “will to fight” was no more feasible, whereas destroying his capacity to harm the United States was both feasible *and* reasonable. “We have come full circle, back to the pre-strategic era” where targeting cities “constitutes a *desperate and illogical attempt* to achieve deterrence through the threat of destroying organized society rather than achieving deterrence through the clear ability to gain military victory.”²³⁴ As an illustration, the writers invoked the powerful images of Hiroshima and Nagasaki to underline the destructiveness of nuclear bombing. Consequently, the Navy wanted to kill civilians instead of soldiers—something that is not only senseless, but inhumane.²³⁵ The Navy position, it was argued, assumed that there were

no winners in such a conflict, and that nuclear war is simply unthinkable. (...) to enhance deterrent qualities, these strategies *dwell on the terror aspects of nuclear retaliation against enemy cities* and populations, against the very fabric of the enemy society. (...) Thus far the logic is sound, but what happens if the opponent has a similar capability to devastate American cities, to destroy the fabric of our national society?²³⁶

Unlike this non-credible, terroristic approach, counterforce “produces confidence in our strength”. The document stated that “effective deterrence is very closely linked to war-fighting and war-winning capabilities”: the latter reinforces the former, and thereby improves

²³³ Ibid.

²³⁴ “This is Counterforce” (1963).

²³⁵ Ibid., emphasis added.

²³⁶ Ibid., emphasis added.

credibility. But it is not only a substitute for city targeting in the event of general war. “A military posture designed to execute a counterforce strategy would provide the President with the widest possible range of choices” in case war developed from limited conflict. Cities rarely presented the most suitable targets, and systems that were designed for this sole purpose were too rigid for the requirements of an age of parity.

Flexibility was crucial as “deterrence is never absolute”, so the superiority of military forces was the best way to deal with escalation and to maintain deterrence. This argument of course would have secured the continued primacy of the Air Force in budget negotiations. War was “winnable”—or at the very least, “success” was possible²³⁷—and the victor was to be defined by the number of survivors on each side. Thus, survivability on a societal level was part of the arms race—“a program for post-attack reconstruction and recovery” is an integral part of counterforce (see Kahn, 1960, 1962; cf. Wohlstetter, Hoffman, Lutz, & Rowen, 1954). But survivability was also synonymous with second strike counterforce: “the old adage that the best defense is a good offense is still valid. In the nuclear era, however, the best offense may also be the product of a good defense.”²³⁸

Crucially, Polaris also had a place in a counterforce posture. A mixed posture would force the enemy to prepare for multiple kinds of attacks (see e.g. Kaufmann, 1956, 1958), and it could play a crucial role in intra-war deterrence. Once counterforce strikes were over, Polaris could be used to threaten cities as “hostage insurance”. Additionally, if the US openly communicated a counterforce posture, it could encourage Soviets to do the same—an argument seemingly lifted from the pages of Thomas Schelling’s (1960, 1966) research on

²³⁷ Air Force Special Film Project 416, “Power of Decision”, Produced by Air Photographic and Charting Service (component of Military Air Transport Service) Circa 1958, For Official Use Only. Source: Digital copy prepared by National Archives and Records Administration Motion Pictures Unit, Record Group 342, Department of the Air Force. Accessible at <http://www.gwu.edu/~nsarchiv/nukevault/ebb336/index.htm>.

²³⁸ “This is Counterforce” (1963).

bargaining and signaling. In an absurd manifestation of defense rationalist logic, the document even claimed that “hostages” would have a higher chance of surviving global nuclear war. The importance of this particular point is more obvious once we take into consideration the wide-ranging support for the Polaris system in policy-making circles (including McNamara). To derail the minimum deterrence argument while endorsing Polaris, White so summarized the Air Force position to Director of Defense Research and Engineering OSD, Herbert York in 1960:

the Air Force has supported the POLARIS program in the past as a complementary strategic weapon system which can contribute to our total posture, particularly by adding further to the diversification in our strategic inventory. We have furnished this support although we have never felt that it could approach doing the bulk of the strategic job due to a number of its potential vulnerabilities which are not generally recognized or understood. For example, I have been informed reliably that a submerged nuclear submarine has already been detected at a distance over 1,500 miles. Nevertheless, I still feel that the system can make a useful contribution and, in view of the critical possibilities revealed in your briefing, warrants a calculated risk in accelerating the program as you proposed.”²³⁹

So Polaris, though a useful technology, could only have a supplementary role in the strategy that was to be devised by the Air Force.

Finally, the document also mirrored Albert Wohlstetter’s (1959) reasoning about the delicate balance of terror, i.e. the apolitical proposition that technological breakthroughs alone could upset the balance between the two superpowers, forcing the laggard to launch a preemptive attack. To this the Air Force responded that a “valid military strategy must be able to endure even the most spectacular technological breakthroughs and exploit them to its advantage.” In fact, reiterating its “humanistic” approach, counterforce even constituted special a form of arms control:

²³⁹ Box 1. Folder 30: “No cities” Graduated Deterrence Kaplan papers Gen White’s letter to Dr Herbert York, Director of Defense Research and Engineering, Office of the Secretary of Defense 14 Mar 1960.

as counterforce capabilities improve, in terms of accurate intelligence, target acquisition, and weapon yields tailored to the target, the total megatonnage required for a counterforce operation actually declines rather than increases. The whole philosophy of avoiding deliberate destruction of civilian populations and urban areas and of limiting collateral damage is an important arms control measure, especially in view of the mutuality of interest implicit in the counterforce strategy.²⁴⁰

Thus, as the above document shows retextualized RAND ideas could be employed by the Air Force to lend legitimacy to its position by collapsing deterrence and war-fighting into an “in-between” of the two extreme positions. The role of offensive forces thus became simple: “We build forces for national defense—to fight. Their deterrent effect is only a peacetime by-product of their war waging capability.”²⁴¹ To maintain a fighting force equaled maintaining deterrence. Therefore, what the Navy had proposed would be nothing less than tantamount to national suicide: “it can be easily demonstrated that failure to maintain the counter-force capability greatly alters the present power relationship in favor of the Soviet Union”, General LeMay once argued. “Inability to maintain the counter-force capability will inevitably lead to a weakening of US alliances and reduction of the will to resist.”²⁴²

By the turn of the decade, the Air Force could successfully present finite deterrence through an exaggerated version of the previous gambling metaphor, as “Russian roulette on a very grand scale”. The Navy was depicted as inconsistent, “riding the conceptual fence”—ready to go in almost any direction, if it suits their purpose and fits their current weapons system.”²⁴³ Counterforce became the rational, historically plausible strategy that appealed to the military tradition, to common sense and to moral considerations alike. The Air Force

²⁴⁰ Ibid.

²⁴¹ C. H. Childre Maj. Gen. USAF, Assistant Deputy Chief of Staff, Plans and Programs. Paper on Limited/Conventional War Strategy, 9 Jan 1961. National Security Archives, Fred Kaplan Papers, Box 1, Folder 51: Air Force and Counterforce.

²⁴² The Threat [Includes Air Force Intelligence Estimates on Soviet Threat and Targeting Requirements], Secret, Intelligence Report, March 2, 1960, 14 pp. National Security Archives, Collection: U.S. Nuclear History. Item Number: NH00418, p. 10.

²⁴³ Presentation to the USAF [United States Air Force] Commanders Conference, Secret, Speech, January 13, 1961, 21 pp. National Security Archives, Collection: U.S. Nuclear History, Item Number: NH00140.

could once again present itself as the military's most sophisticated force—both in terms of its ideas, goals and hardware—that could *control* the developing dangerous situation of numerical parity between the superpowers. This control not only extended to general war, but also to limited conflict—an argument that could delegitimize the Army's continued bids for a conventional build-up. Defense rationalists for their part could successfully disseminate their ideas on a crucial question of nuclear strategy in a fashion that could appeal to both their patron and the political elite. The success of these ideas was the result of a careful, gradual process of persuasion, the molding of often contradictory concepts along a narrative that made sense to the Air Force. The adoption of counterforce—even in its limited, non-exclusive form within an optimum mix—shows the success of defense rationalists in establishing links between their own and the military's seemingly conflicting tradition: the abstract thinking of science arriving to an idea that could be traced back to the age of the first wars. General Parrish so summarized the essence of this reconceptualized Air Force tradition:

Only the Air Force has any interest today in an offensive nuclear capability which is other than suicidal. Only the Air Force is interested in establishing that it is possible to have an improved offensive capability which is not necessarily first strike, but above all, would not be *last* strike. Now that the present budget is fixed we can only work to insure that the next will not doom us to creeping disarmament after 1965 through failure to improve offensive systems. (...) If we fail in this effort we are committed to a *post*-missile gap which may never be closed.²⁴⁴

The Air Force's efforts were eventually honored by the Eisenhower administration in 1960: the organizational mechanisms for developing the Single Integrated Operational Plan was practically put under SAC supervision. (Sagan, 1987) Targets pushed for the Navy were included, but also were counterforce targets, and the Navy did not get exclusive control in hitting the first group. Even though Eisenhower endorsed an optimum mix strategy, and the

²⁴⁴ "Post-Missile Gap and Other Implications of the Current Budget." Gen. Noel Parrish's memorandum to Gen. White, 7 April 1961. National Security Archives, Fred Kaplan Papers, Box 1, Folder 51: Air Force and Counterforce. Original emphasis.

Weapons Systems Evaluation Group report that he commissioned on the topic was critical of counterforce (Weapons Systems Evaluation Group, 1960) because of its potential costs and feasibility, the Air Force had achieved the continuation of its primacy in targeting, which meant indirect control on budgeting and procurement.

7.6. Whiz Kids and the McNamara revolution

Kaufmann's project for the Air Force received an important piece of criticism from Daniel Ellsberg. He argued that the Air Force would mostly be interested in a first strike capability, however, "many other audiences would listen less seriously to proposals advanced even partly in terms of US first-strike capability than to proposals which ignored this 'goal'". What makes this dilemma crucial is the fact that the final acceptance of counterforce as a military doctrine would depend on "decisions by officials outside, and above, the Air Force: it requires Presidential decisions and changes in NSC policy. It would be fatal to frame the arguments, at the outset, in terms designed (only) to 'sell' the Air Force on the proposals; it seems important to design the briefing with the broader, higher, ultimate audience in mind" (quoted in May, 1998, p. 361).

Ellsberg's words proved to be prophetic, but for RAND's military patron. The successful march of counterforce through the military bureaucracy did not end with the adoption of a counterforce-heavy "optimum mix" solution in the SIOP (Sagan, 1987). The Air Force also engaged the new Kennedy administration in an attempt to ensure the reproduction of its practices. Counterforce was to be presented to McNamara as the Air Force's response to Kennedy's forming strategic doctrine against the "incomplete rationalizations" of the Navy's

“capsule strategies,” which were “gambling some portion of our nation’s security.”²⁴⁵ So in a series of briefings, the new secretary was introduced to the problems and concepts of nuclear strategy. McNamara was originally opposed to counterforce—he essentially agreed with the Eisenhower-commissioned findings of the Weapons Systems Evaluation Group’s (WSEG) report no. 50 that found counterforce theoretically desirable, though operationally unfeasible (Weapons Systems Evaluation Group, 1960).²⁴⁶ Instead, McNamara was an avid supporter of Polaris and minimum deterrence, seeing it as the key to a credible deterrent.²⁴⁷

Some analysts, most notably Hitch and Enthoven, however believed that counterforce was misrepresented by the WSEG study and booked a briefing for Kaufmann to present the RAND position to the Secretary. During his previous visit to SAC’s headquarters, McNamara was shocked by the brutality of America’s operational plan, the SIOP-62, and seemed more open to alternative methods. At the briefing, Kaufmann showed the versatility of the matured idea of counterforce with city-avoidance, intra-war deterrence, invulnerable reserve forces, command & control, the deterrent role of conventional as well as additional measures (civil and active) (May, 1998, p. 373). The presentation was successful, and the initially skeptical secretary quickly understood the importance of counterforce for the US’ current politico-strategic situation. With the help of defense rationalists, such as Alain Enthoven, Daniel Ellsberg, William Kaufmann, and Frank Trinkl, McNamara began to implement the suggestions RAND presented. The changes were clearly visible (see esp. Kaufmann, 1964): 1) the missile program was adjusted to produce the more accurate Minuteman missile; 2)

²⁴⁵ Presentation to the USAF [United States Air Force] Commanders Conference, Secret, Speech, January 13, 1961, 21 pp. National Security Archives, Collection: U.S. Nuclear History, Item Number: NH00140.

²⁴⁶ WSEG-50 also asserted that counterforce required more than one missile to destroy an enemy weapon, therefore it would induce a new arms race.

²⁴⁷ "Reject the 'Minimum Deterrence' Extreme" Memorandum to President Kennedy from Secretary of Defense Robert S. McNamara, "Recommended Long Range Nuclear Delivery Forces, 1963-67," 23 September 1961, Top Secret, Excised copy. Source: FOIA release [Also available on Digital National Security Archive, U.S. Nuclear History, 1955-1968]. Available at <http://www.gwu.edu/~nsarchiv/nukevault/ebb275/index.htm>.

hardened silos and Polaris were commissioned for a better second strike deterrent; 3) spending on bombers was cut (the procurement level was zero for FY 1963!) and spending on missiles increased; 4) cities and military targets were moved on separate target lists; 5) reserve forces were created for intra-war deterrence; and 6) the new SIOP-63 was to be made less rigid with five alternative strategies.

McNamara's fascination with defense rationalists was not only the result of the Kaufmann presentation. Witnessing the Air Force's repeated attempts to exert greater control over RAND during the intense interservice rivalries of the late 1950s, the RAND's leadership decided to broaden their clientele, while not necessarily abandoning Project RAND. As a parallel process, analysts tired of the continuous resistance of the military aided the Kennedy campaign on national security matters, seeing a potential ally in the Senator. Kennedy's young age, intellect and concern about matters of national security—especially his opposition to massive retaliation – appealed to defense intellectuals. McNamara himself—the former president of Ford Motor Company—had an exceptional intellect, an appreciation of quantitative methods and of efficiency that was reflected in his choice of staff members: from RAND, he recruited “whiz kids”, among others Charlie Hitch, Alan Einthoven and Henry Rowen, who brought with them the methods and attitudes that defined defense rationalism. Thus, arguably, McNamara shared some of the elements of the defense rationalist tradition, facilitating persuasion. McNamara used his position to reorganize the Office of the Secretary of Defense (OSD) according to the business model he used at Ford. Relying on his new staff, he took control of the defense policy process – previously a maze of fruitless interservice rivalries. Through a review of current US nuclear strategy, McNamara quickly established that the missile gap was completely fictional – the strategic balance even favored the United States by a substantial margin.

Convinced by RAND's presentation on the topic, in early 1962, McNamara began making public statements to promote counterforce and to indicate its possible endorsement as official strategy. In the January 1962 budget statement for FY 1963 he already stated that deterrence rested on the "capability to destroy the enemy's warmaking capabilities" and that nuclear weapons could be used to encourage the Soviets "to avoid our cities and stop war". (Ball, 1980: 195-196) These bits of statements showed the shift in strategic thinking in the Kennedy administration: counterforce was endorsed in its no-cities version with damage limitation/intra-war deterrence in mind. In his May 5 1962 Athens speech at a NATO ministerial meeting – which was written by Kaufmann and Rowen – McNamara openly endorsed counterforce in front of US allies to counter European aspirations for national nuclear forces. Later that year, McNamara publicly endorsed no-cities counterforce at his alma mater, the University of Michigan, Ann Arbor:

The U.S. has come to the conclusion that to the extent feasible, basic military strategy in a possible general nuclear war should be approached in much the same way that more conventional military operations have been regarded in the past. That is to say, principal military objectives, in the event of a nuclear war stemming from a major attack on the Alliance, should be the destruction of the enemy's forces, not of his civilian population. The very strength and nature of the Alliance forces make it possible for us to retain, even in the face of a massive surprise attack, sufficient reserve striking power to destroy an enemy society if driven to it. In other words, we are giving a possible opponent the strongest imaginable incentive to refrain from striking our own cities. (McNamara, 1962)

Note that the Secretary of Defense reframed the essence of counterforce for his new audience: the main thrust of the strategy was more moral than strategic — it called upon the humanitarian value of avoiding collateral damage in war. This rhetorical turn directly called upon sentiments of American exceptionalism, and expanded the discursive coalition around counterforce.

McNamara's endorsement of counterforce during the spring and summer of 1962 marked "the high point of RAND influence" (Digby, 1990, p. 27). Through the "McNamara

revolution”, the defense secretary reshaped the Department of Defense along policy-making guidelines supported by RAND (Kaufmann, 1964). The new decision making guidelines reflected the science of warfare, in that they relied on methods employed by defense rationalism, such as systems analysis or cost assessment. These methods, bound by the tradition, could act as policy-making constraints as they got institutionalized and their success lead to a wider dissemination across the bureaucracy. Meanwhile, the Air Force celebrated its success and sought to rely more and more on the research supplied by RAND—next in the dilemma raised by the ABM negotiations. Other services, starting with the Navy, also realized the potential of science-backed policy arguments, and started adopting the “RAND method” in similar research institutions. Science and military tradition were no longer seen as mutually exclusive, and military schools began adding defense rationalist subjects in their curricula. Meanwhile, civilian research was also affected by the turn in the military. During the Cold War, military—especially nuclear—strategy was “where the money was”, so research institutions and universities tried to cater for military needs, adjusting their research agendas as well as their methods (Solovey, 2001). With RAND’s general success and the scientific-bureaucratic authority its analysts held, imitation was again an obvious step. But branching out was also encouraged at RAND: negative experience with petty interservice rivalry, and the Air Force’s increasing control over RAND research as dilemmas intensified forced management to branch out, and look for other clients. The US government under the Kennedy administration was an obvious place to go. Thus we have come full circle: the widespread institutionalization of defense rationalism had begun.

7.7. From Santa Monica to Ann Arbor

The fact that expertise has come to have a political function as an ideology is inevitable and, I believe, by no means wholly regrettable. Scientific expertise has become the idiom of the debate, within governments and between them, not only in the strategic field, but in many others. If it is pressed into service by one party, the other parties must acquire it themselves or go under.

/Hedley Bull/²⁴⁸

This chapter presented an example for the persuasiveness of defense rationalist thought. Historicizing the taken-for-grantedness of deterrence theory it demonstrated the historical contingency of the theory's institutionalization, and the active process of persuasion, through which strategists re(con)textualized their ideas to make them more marketable to military audiences and the wider policy-making elite. Counterforce's non-linear evolution and adoption shows how ideas need to find the fit with existing traditions and other elements of the policy environment as they gather powerful carriers that can retextualize the idea until it succeeds in dominating the discourse and thus can be institutionalized. This particular example of defense rationalist thought also illustrates how strategic use of an idea can help it in achieving discursive dominance—which in turn enables longevity even after these interests had dissipated.

Counterforce's communication during a pivotal dilemma of the Air Force shows how passive and active persuasion can be applied to establish cross-tradition links (which can even facilitate discourse coalition-building): as the chapter has shown, the Air Force eventually integrated RAND ideas into its own tradition. Though once again, expert ideas did not translate into policy—Eisenhower opted for an optimum mix and McNamara soon dropped the no-cities element due to allied resistance—defense rationalists were successful in

²⁴⁸ Bull, 1968, p. 86.

transmitting policy beliefs both to the Air Force and to the Pentagon, launching their successful further dissemination across American public policy-making.

CONCLUSION: FROM WORDS TO WORLDS

This dissertation departed from the puzzle posed by the apparent discrepancy between accounts of defense rationalist intellectual/policy influence and the actual impact of these experts on policy outcomes. It asked the question how this “outsider” group of civilian analysts could make the US military adopt their ideas of nuclear strategy, which then served as the basis of lasting institutional structures. Previous accounts treated these ideas either as epiphenomenal—most commonly explained away by bureaucratic interests and strategic use—or assumed their persuasiveness due to their scientificity. Emphasis was placed on the institutional context or on idea carriers, but the ideas themselves have not been analyzed contextually. As an alternative to these existing approaches, the dissertation proposed to historicize these ideas—to trace their origins back to their initial conception and institutionalization in the early Cold War. Historicizing the taken-for-grantedness of defense rationalism can namely demonstrate the historical contingency of its persuasiveness, highlighting the complex practices of persuasion its carries needed to rely on in order to make ideas stick.

In order to engage the problematic origin of defense rationalism, this dissertation opted for an interpretivist-discursive institutionalist approach to expert policy influence. Within the micro-theory of persuasion I call contextual suasion, I conceptualized the role of agency in institutional/policy change in combination with a contextual, discursive-institutional understanding of the policy environment as a guiding, non-determinate background for individual action. With its focus on how individuals assign meaning to policy problems and institutions, contextual suasion highlights the contingency and contestability of the expertise that informs policy action. Positioning itself in opposition of pure structuralism,

the proposed framework suggested that agents do not produce meanings in an ahistorical and fully subjective space, but in a network of language games. Within this field, meanings depend on intersubjective acceptance—not on correspondence to an external reality—inviting reflexive agency to re-(con)textualizetize previously taken-for-granted meanings.

This theoretical core supports the claim that the political power and influence of experts is fundamentally different from that of "traditional" actors (e.g. lobbyists, bureaucrats) analyzed by political scientists: they exert influence through their (expert) ideas. Policy experts are able to influence decisions by offering "scientific" ideas that not only present a means-ends solution to the problem at hand, but also frame the problem itself, thereby acting as a constraint on decision once institutionalized. Scientific ideas are widely used to mask material interests precisely because they are considered to be authoritative due to rules that are external to the actor that uses them strategically. Yet the selection mechanism of these expert ideas is far from automatic—ideas that serve as the basis of policies are not necessarily the "best" (most rational or normatively preferred). Instead, experts are constantly engaged in a rhetorical struggle for discursive hegemony, shaping their own ideas to better fit the policy environment.

The question for research then becomes: what makes expert ideas "sound right" – what other discourses do they invoke to gain legitimacy and crowd out other policy ideas? Persuasion here is not simply a rhetorical category: the project looked at how expert transform their often very abstract constructs into policy ideas that fit the general political environment. On the one hand, this contextual approach enabled the dynamic mapping of the relationship between the scientist-expert, himself a novel actor in policy-making, and the aforementioned traditional players. On the other hand, it also highlighted how expert ideas invoke external

discourses (e.g. political, scientific) to gain legitimacy, constrain alternative proposals and become blueprints for new and lasting institutional setups, while also providing legitimacy and decision-making authority to their carriers.

As the analysis has shown, through a series of attempts strategists re(con)textualized their ideas to make them more marketable to military audiences and the wider policy-making elite. Counterforce's non-linear evolution and adoption in particular showed how ideas needed to find the fit with existing traditions and other elements of the policy environment as they gathered powerful carriers. These carriers could then retextualize the idea until it succeeded in dominating the discourse, and thus could be institutionalized. This particular example of defense rationalist thought also illustrated how strategic use of an idea can help it in achieving discursive dominance—which in turn enables longevity even after these interests had dissipated.

The particular kind of scientific discourse referred to as “the science of warfare” proved to be an excellent source for persuasive rhetoric, and consequently a source of stable institutionalization. As the holder of ultimate authority of Truth about “how the real world works”, science—in this case, defense rationalism—could put a claim on defining what the Cold War world was like and how the military should engage it. Naturalizing defense rationalism's claims about nuclear conflict, and conflating language game of nuclear deterrence with that of the Cold War as a whole in this sense enabled the longevity of these ideas through their taken-for-grantedness. Yet, as the three cases have shown, this contingent claim of naturalization was met with severe opposition. The Air Force in particular acted as an “ideational gauge” for defense rationalism: without persuading this primary audience there could be no hope of wide-ranging policy impact. Persuading the military patron on the other

hand could secure not only the promise of policy impact, but also resources—both in terms of prestige and resources. This clear and pivotal opposition between patron and think tank, between military experience and abstract science, further underlined the importance of historicization for any meaningful critique of deterrence theory, and identified the Air Force’s organizational tradition as the single most important element of the policy context in question. In these fifteen years of the “Twilight Struggle”, the military-industrial complex was in a state of institutional flux: defense rationalists had no strong institutional backing outside of the Air Force—with this support being contingent on delivering expected results—and the ideas we now take for granted were far from being naturalized. So how does one go about persuading a military that shares a tradition that is seemingly diametrically opposed to what we know as the science of warfare?

The pre-existing strong authority of science in American society, the political-military elite’s urge to conserve scientific capital with the military, and the nuclear revolution narrative all facilitated the success of defense rationalist ideas. Yet offering a structuralist explanation, as this dissertation has suggested, presents an incomplete picture precisely because of the strong initial opposition from the military patron. As I have argued throughout this analysis, the persuasiveness of defense rationalism was a composite of a strong scientific basis (passive persuasiveness), and active rhetorical argumentation on behalf of the analysis (active persuasion) that was aimed not at dismissing the military side of the debate, but establishing links between the two tradition.

Without such links, pure science was bound to fail, as the mathematically complex Bombing Study’s spectacular failure showed in Chapter 5. But passive correspondence did not translate automatically into influence on policy outcomes either. Being self-evident may

hamper the impact of an idea: once the audience recognizes it as relevant, it can effortlessly be integrated into the audience's tradition. Wohlstetter's Basing Study identified a problem that captured the attention of the Air Force echelon. Once knowing the problem, however, policy solutions could mirror the Air Force tradition (i.e. pre-existing practices) and not the changes in policy defense rationalism had envisioned. It is the multi-faceted dilemma of the Polaris program and minimum deterrence in the counterforce debate that showed how defense rationalists could establish and actively mold such cross-tradition links. The dilemma here acted as a permissive condition for external advice: the Air Force tradition was simply incapable of countering the Navy's technological and theoretical challenge at the same time. Turning to RAND, Air Force officers allowed defense rationalists not only to provide a solution to the problem the patron raised, but to reframe the whole policy discourse on what nuclear war is and how it should be fought. This reframing along defense rationalist ideas—coupled with the Air Force's success in the debate—led to the proliferation of defense rationalism across rival Services but also other fields. However, it needs to be noted that this is by no means a determinist argument: persuasion in the sense that contextual suasion envisages is contingent on the idea carrier's interpretation of the policy environment, and the subsequent rhetorical choices he or she makes. It is both dynamic and historically contingent.

Nuclear strategy is a curious field, one that is mainly analyzed in an abstract realm separate from real life experience: as no nuclear wars have been fought, analysts have to engage the whole concept of war in abstract terms. Consequentially, claims about the efficiency of deterrence and other strategic concepts have never faced a true "test" in the sense of the scientific method: the continued taken-for-grantedness of defense rationalist ideas rather depended on their persuasiveness. Instead, dilemmas RAND's patron, the US Air Force faced, like those discussed in this dissertation, were the gravest challenges for defense

rationalism. No doubt, the continued absence of nuclear conflicts contributes to the longevity of these ideas, but the specificities of the language and the methods these ideas carry also merits attention. Establishing metaphorical correspondence between defense rationalist traditions, carried in language and methods, and other traditions has given ideas legitimacy and invites support.

Dr. Strangelove celebrated his 50th birthday this year. His popularity as one of the most iconic characters in American cinema is unchallenged, but so is that of the ideas he was meant to ridicule. The cold, rational, sometimes morbid language of defense rationalism lives on—it has migrated to other worlds like that of public policy or academia, and now it is returning to the realm of national defense as the Doctor's contemporaries use it to make sense of (and shape) current security hot topics such as cyberdefense or drone warfare. Through a discursive process taking decades the abstract *words* of the science of warfare became the foundation of a new institutional *world* that continues to haunt us.

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