# THE GEOGRAPHIES OF NON-LETHAL WEAPONS: TRANSFORMATIVE TECHNOLOGIES AND POLITICAL VIOLENCE

By



Samuel D. Henkin

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Chairperson: Shannon O'Lear, PhD

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Stephen Egbert, PhD

_____

Jay T. Johnson, PhD

_____

Barney Warf, PhD

_____

Ward Lyles, PhD, AICP

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The dissertation committee for Samuel D. Henkin certifies that this is the

approved version of the following dissertation:

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Chairperson: Shannon O'Lear, PhD

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## Abstract

Non-lethal weapons, like police batons, rubber bullets and tear gas, are increasingly deployed in interventions against a rising number of bodies in contested spaces. They are formed through notions of (in)security and an ethos of the use of force that makes such interventions appear to be ethical and humane. Yet, what is considered ethical or humane about weapons that are used with possible violent and injurious effects is bound to security discourses and practices in an interlocking globalized police-military-network. Transformations in security techniques and technologies engenders a subtle, yet vastly nefarious, "mission creep" where technologies of war are depoliticized as a sensationalization of (in)security drives a robust use of force continuum weaponizing the politics of non-lethality. Shifting articulations and practices of non-lethality in security underpins the increasing militarization and colonization of everyday life by security logics and norms broadening the social utility of disciplinary power. Geographic literature on the logics of security is vigorous, but less attention has been paid to the politics of non-lethality and its operation within contested spaces, contentious politics, and exercises of state disciplinary power. Acknowledgement and better understanding that non-lethality operates at different socio-spatial scales from orbital space right down to the individual body is crucial. Investigating non-lethal state interventionary power recognizes the reinvention of citizens as subjects, as potential sites of political violence and domination in contested spaces. Non-lethal weapons have transformative effects on spaces of governance within the growing international security environment as well as on bodies and the use of force. This project confronts wider programs of state security regarding the use of force, programs that connect violence to order, coercion to lethality and military power to civilian spaces.

## Acknowledgements

The following pages embody an incredible journey of intellectual and personal growth. Like many epics, this dissertation is a journey filled with passion, anguish, and triumph.

The seven chapters that encompass this document, neatly and meticulously formatted, masks the messiness and madness of five years of intellectual labor.

The one author listed on the title page belies the scaffolding of care, attention, and support of countless individuals.

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Finally, to my family and friends who wander the world, chart the stars, and contour the subtle nuances of my life experience with me, this is for you. Over the years, you showed me how to find the extraordinary in the ordinary and now I see it every day.

To the journey!

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# Chapter 1
# Introduction: Making the Case for Critical Geographies of Non-Lethal Weapons

## Setting the Stage

The thunderous sound of footsteps sojourn, thousands of voices pierce the air, a collection of deafening battle cries. The waves of exhilaration and purpose that motivated you forward shifts as fear and anxiety emerge in your mirrored reflection on tactical control body shields. The horizon is obscured as the armored bodies of Mine-Resistant Ambush Protected Vehicles (MRAPs) and High Mobility Multipurpose Wheeled Vehicles (HMMWVs) tower over the front-line security personnel blocking your way forward. They stand anonymously concealed behind layers of their protective suits, a living caricature of a mechanized humanity, disciplined and ordered. Where human ends and weapons begin is unclear.

Pandemonium reigns.

Your eyes snap shut, darkness and blurred vision mitigates your ability to bear witness to the chaos around you as your eyes blink furiously to combat the severe burning as the aerosolized crystals of OC-spray (o-chlorobenyzlidene malononitrile aka tear gas) adhere to the wet surface of your eyes. You start to cough violently, involuntarily choking, as your body's defense mechanisms fail against the bombardment of irritating chemicals whose effects strengthen in reaction to your body's defenses. Your breathing passages become overwhelmed. Gasping pulls the chemicals into your chest cavity. Your skin crawls as the feeling of flames lick exposed areas. You become disoriented. The combination of these physiological reactions and the psychological manifestations of fear, panic, and pain are close to incapacitating you.

Around you, cries fill the air as flesh tears and bones collapse under the strength of impact or blunt projectiles, such as rubber/plastic bullets and bean bags fired from 12 gauge shotguns, multi-shot 40mm launchers, capable of firing 5-6 shots per minute, and semi-automatic modular launchers capable of continuous feed rates of up to 15 rounds per second (SDI 2017). The whistling resonances of the impact projectiles and their blows, the direct compression of tissues and ensuing shockwaves on bone, of

their strikes prompts you to cover your vulnerable anatomic sites. Biomechanically, a blunt force trauma acts on the bone in predictable ways, first stressing the bone as the initial force is applied, straining occurs as the force passes through the bending bone culminating in its ultimate failure, the fracture of the bone (Passalacqua & Fenton 2012). The minimum energy it takes to cause ballistic injury is 79 Joules, and on average, impact or blunt projectiles can impart energies on the order of 100-200 Joules (Fink 1965; Di Miao 2015; Vilke & Chan 2007). Bodies around you fold onto the ground as the fragility of their flesh and bones befalls.

You stand frozen in the chaos of the scene; the disorientation is too much to bear; you are in retreat. While others move forward to face the onslaught of physical and psychological stresses and violence you endured you move out of range with strain, your body is weakened. The immutable power of these weapon systems overwhelms. The autonomous body suits reform their line moving forward, seizing contested space, step by step.

The screams and injuries around you are indicative of the extension of weapon technologies in everyday life. It is a reminder that human bodies are subject to violations of their flesh, blood and bones by actual practices of security and ordering by the state (Tyner 2009; Hurd 2017). The state—partial and becoming as it is—embraces a tenuous legal monopoly on exercising violence as part of its portfolio of legitimacy (Weber 1965). How life and death are regulated, and by whom, is a fundamental question in the state's capacity to make and take life. This research project identifies a gap in scholarship on the state's sovereign right to exercise violence and take life, highlighting the ways the state regulates life and death by *making life,* albeit through violence. It asserts that scholarship on geographies of security and violence must recognize non-lethality and recognize that non-lethality in state security agendas has a geography. A false binary between non-lethality and lethality—the non-lethal/lethal distinction (referred to as [non-]lethality throughout)—has become stabilized within modern security frameworks through the state's claim to a monopoly of exercising violence as well as its monopoly on the decisions of what counts as legitimate and illegitimate violence (Hurd 2017).

In our day and age, the revolution and advancement of weapon technologies allow states to manage, direct, and enact violence gradually dismantling traditional ethico-political ranges from 'targeted killing' using unmanned aerial vehicles (UAVs aka drones) to so-called 'non-lethal' munitions, like 'bean-bags'. Transformations in 'security mechanisms' (such as regimes, frameworks, technologies, techniques, and materialities) engender a subtle, yet nefarious, "mission creep" where weapon technologies are depoliticized in geopolitical discourse as a sensationalization of (in)security drives robust use of force options in everyday life.

**Introduction: Security and Contested Space**

Across the world today from Caracas, Venezuela, to Moscow, Russia, from St. Louis, Missouri, to Bangkok, Thailand, the use of force against civilians is increasingly permeating the everyday, everywhere, and the overlap between weapons technology and everyday life is a distinct feature of contemporary society (Tyner & Henkin 2015; Gregory 2011). The all-too-familiar images of security forces facing off against protestors in the streets and plazas across the world echo battlefields of war. As the boundaries between military and civilian, state and war machine blur, the discourses and exercises of state power, operating within a militarized grid of interpretation, manifest as daily practice (Herbert 1997; Deer 2007). This shift in civil-military relations underpins the increasing militarization and colonization of everyday life by security logics and norms that offer technological innovations and structures, broadening state disciplinary power (Bachmann et al., 2014). As Coaffee and Wood (2006) argue, "Security is becoming more civic, urban, domestic and personal: *security is coming home"* (p. 503, emphasis added).

The competing demands of the modern state pivot around the (re)production of social and spatial order –certain ways of being, thinking, and doing. Progressively, the (re)production of social and spatial order is centered around the often-amorphous idea of 'security'. Security has remarkably woven itself into the fabric of everyday life—perpetrated upon bodies and enacted in spaces—inundating political, social, and spatial relations and arrangements. Even more remarkable, security is so pervasive that it has been widely accepted as a legitimate hegemony in articulating and producing our world(s) (Anaïs, 2015).

Nevertheless, an emergent body of critical scholarship has brought security increasingly into focus; *security is contested and contingent.* Moreover, security cannot be understood without engaging its echo: *insecurity*. Thus, the paradigm of (in)security, as a geostrategic construction and hegemonic ideology obsessed with social (dis)order, utilizes apparatuses of justification, legitimizing narratives, and state policies and practices to shape everyday life (Neocleous and Rigakos 2011).

State-sanctioned policies and practices of (in)security are underpinned by a vast array of intelligibilities, techniques, and technologies designed to observe, measure, and value bodies as well as order their conduct (Foucault 1977, 1991). It is my belief that state techniques and technologies of valuing bodies and ordering their conduct have three defining characteristics in contemporary society: 1) they are progressively technology-based, methodical, automatic, and often indiscriminately applied; 2) they target and consider the body as an object that can be observed, measured, valued, and consequently ordered through militarized lenses and 3) they operate increasingly in our everyday lives. This security infrastructure is malleable and ubiquitous in its ability to create securitized spaces and societies through a militarized sense-making of everyday life (Åhäll 2016). (In)security has become a common sense and normalized part of everyday life through self and state ordering, policing, and disciplining. It obfuscates the security realities whereby state policies and practices of security are increasingly used to "legitimate unequal access to life and death" (Tyner 2012, p. 25).

Geographic literature on the logics of (in)security is vigorous, but less attention has been paid to (non-)lethality and its operation within contested spaces, contentious politics, and exercises of state disciplinary power. Where the thresholds of accountability, acceptability, and legitimacy of the use of force and violence against civilians are becoming increasingly contested is the extension of the battlefield and all its relations into everyday life by "organizing social relations into security relations" (Huysmans 1998, p. 232; Mustapha 2011; Blackmore 2011). As the everydayness and familiarity of security continue to penetrate all aspects of life the boundaries between non-lethal and lethal have stabilized within modern security frameworks, instituting a materialized (non-)lethality that is a weaponized (non-)lethality.

**Central Objectives and Research Questions**

The practice of political protest across the world has drawn considerable attention to the political and spatial dynamics of global movements, revolts and demonstrations whereby public spaces—streets, plazas and squares—become 'spaces of contestation' (Bosco 2001; Kaika & Karaliotas 2014; Uitermark & Nicholls 2014; Eder & Öz 2017; Daphi 2017). As these active space-taking forms of political action—however fragile and contingent—emerge within and alter these contested spaces, states intervene to dislocate citizens and "secure" space (Sewell 2001; Leitner et. al, 2008; Arampatzi 2017). To secure space implies new forms of interventionary power that forge novel forms of military and civilian engagement, often, violently dislocating bodies (Bachmann et al., 2014). The forms of dislocation and securitization are often beholden to use of force options that range from security presence and tactical communication to crowd control *and* lethal force. However, securing space is increasingly understood through the lens of non-lethality (Anaïs, 2015). As such, this research engages state interventionary and disciplinary power that connects violence to order, coercion to (non-)lethality and state security power to civilian spaces. It addresses the paucity in geographic literature on the politics of non-lethality and its materializations, through non-lethal weaponry, that proliferate across the world changing the dynamics of policing contested spaces and bodies.

Non-lethal weapons are increasingly deployed in interventions against a rising number of bodies in contested spaces. They are formed through notions of (in)security and an ethos of the use of force that makes such interventions appear to be ethical and humane (Anaïs 2015). Yet, what is considered ethical or humane about weapons that are used with possible violent, injurious, and deadly effects is bound to security discourse and practice (Anaïs 2015). Prevailing scholarship on non-lethal weapons focus on the weapons themselves, their users and/or their targets (Rappert 1999, 2003; Davidson 2009, 2013). While this research is analytically rich, it largely supports a dominant view of non-lethal weapons as nothing more than weapon technologies, capabilities, or tools. I believe this serves to acclimatize knowledge about non-lethal weapons that depoliticizes, whether intentionally or not, their increasing use in state security agendas around the world today. In contrast I take a critical approach to question the taken-for-

granted understandings and common sense assumptions of non-lethal weapons in security. Understanding how particular security narratives or discourses are exercised to promote (and obscure) certain agendas about (non-)lethality is a critical objective to this research (O'Lear 2018). Shifts in civil-military relations expose that security is, in fact, "*coming home*," necessitating a widening of the theoretical gaze of non-lethal interventionary exercises of state power (Coaffee & Wood 2006, p. 503, emphasis added).

The central objective of my research is to examine the broader political and spatial impacts of non-lethal intervention. Making the case for critical geographies of non-lethal weapons is the first step in demystifying the shifting ambiguities of (non-)lethality and (in)security in non-lethal state interventions in contested spaces. I conduct an intensive study that seeks to understand how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence. My analysis is focused on state sanctioned violence, the identification of bodies and spaces as threats in contested space, and the prioritization of science and technology in the service of state security agendas. I explore state interventionary power emphasizing the use of theory and methods that link the discursive and material dimensions of knowledge production and practice with the ways they impact non-lethal state interventions in contested space. Importantly, I ground my analysis with an empirical case study in Bangkok, Thailand to expose the lived everyday experiences and embodied consequences of geographies of non-lethal weapons.

The competing demands of governance have entangled forms of social and political order, the use of force, and the legitimization of non-lethal intervention. The policy, social, and spatial implications of this entanglement demand a reckoning. I concentrate on unpacking the spatial and scalar elements to acknowledge and better understand the fact that (non-)lethality operates differently at different socio-spatial levels from orbital space right down to the individual body. Correspondingly, my primary research questions are:

1) How do non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence?
2) How are non-lethal weapons stabilized within global police-military-network policy frameworks

that shape state interventionary power in securing contested spaces?

To address these questions, I construct a conceptual framework drawing heavily on Science and Technology Studies (STS) and its applications to critical political geography. STS offers dynamic ways of thinking about the geographies of non-lethal weapons, highlighting the often-invisible roles of knowledge, expertise, and socio-technical practices in shaping, sustaining, subverting, or transforming relations of security and power (Jasanoff 2004). Integrating STS and critical concepts in political geography related to security creates intellectual space to advance more robust, nuanced, and spatially focused reflection of how (non-)lethality in security is discursively produced, understood, and stabilized. As O'Lear (2018) states, "How an issue is presented or framed, so to speak, influences how we see and understand the issue, thus highlighting why it is useful to identify and examine particular discourses" (p. 9). As a distinct contribution to scholarship in political geography, I employ STS to understand how scientific and technological knowledge-making and implementation is materialized through non-lethal weaponry that co-produces the ways state power and violence is exercised in contested spaces.

Building upon my conceptual framework my methodological framework is devised to address the diverse relations of security, technoscience, and non-lethal weaponry through the co-production of many dynamic, complex, and contradictory discourses. Therefore, my methodology is centered on discourse analysis (Waitt 2005). Specifically, I use discourse analysis to unpack the various discursive framings non-lethal weapons in security policy and practice to better understand how (non-)lethality operates in non-lethal state interventions in contested spaces. My discourse data develops from a labor-intensive collection, review, and analysis of more than 200 textual sources, including government documents, reports, speeches, print media, books, and videos (etc.) spanning a four-year period (2014-2018). I identified and selected source materials and texts using a content analysis approach to generate broad coding themes. This is followed by a detailed coding and data organization schema using intertextual research models. Intertextual research models are used to understand the co-production of security with specific attention paid to the robust linkages between scientific, technological, and security discourses. Finally, I conduct my analysis of source materials and texts investigating their political, social, and spatial

context and 'effects of truth' to show how co-produced and competing discourses constitute relations and practices of non-lethal weapons relating to two master discursive frames: technoscientific and political/ideological.

The aim of this research is to show the ways master and counter framings of non-lethal weapons produce discursive structures around security, (non-)lethality, and technoscience that shape the geographies of non-lethal weapons.

Importantly, my empirical case study in Bangkok, Thailand examines the legitimization of non-lethal weapons in security governance that reifies the false binary logic of (non-)lethality. The Thai military junta has successfully manipulated the false binary to exercise violence to quell political and social dissent in the name of security. I contend that case study research in political geography serves a vital role: "It shows the world to be persistently *diverse*" (Castree 2005, p. 441). My co-productionist STS conceptual framework and discourse analysis methodology centers on practice. It considers the messiness of my methods and fieldwork, how they shape, and are shaped by, the complexities of sociopolitical contexts and sociomaterial networks—and what they do (Law 2017). This implies that I understand the ways my theories, methods, and materials play out in practice in ways that shape and reproduce the social and spatial world. Case studies that connect STS and political geography reject tendencies to overgeneralize, account for messiness, and afford an opportunity to employ the best flexible methods to answer research questions, not necessarily limited by disciplinary or methodological norms (Pickett et al. 2019). My case study grounds relations of society, technoscience, and security in space and place but more importantly, it provides an understanding that non-lethal weapons are experienced in everyday life with very real socio-political, spatial, and embodied consequences.

**What are Non-Lethal Weapons?**

In 2017, a special issue of *Critical Studies on Security:* "Becoming Weapon", called upon scholars of weaponry to engage a "new research agenda" that challenges traditional conceptualizations of weapons as "static material objects" (Bousquet et al. 2017, p. 1). The various authors reject common-sense notions of what a weapon is and direct scholarly inquiry towards *process* and *relations* engaging

"how objects, ideologies, practices, bodies and affects are bound to specific assemblages of violent intentionality" (Bousquet et al. 2017, p. 1; Meiches 2017; Hall Kindervater 2017; Shah 2017). Questioning the basic conceptualization of "what actually makes a weapon?" illuminates the diversity of knowledge regimes, materials, social and political institutions and discourses that constitute a weapon (Bousquet et al. 2017, p. 4). In other words, emphasizing *making* or *becoming* weapons affords an opportunity to examine the specific conditions of development, operational parameters and future trajectories of any given weapon. The everydayness of weapons is thus displaced and analysis can move beyond simple technical performance descriptions and inquiries. The questions posed and theorizations postulated by "Becoming Weapon" encourage critical engagement with weapons and the normative orders and epistemologies that tend to obscure greater intellectual interrogation. The special issue concludes with Shah's (2017) argument that

> "weapons emerge through a relational set of performances by and between various forces (technical properties, legal and ethical criteria, operational directives, military strategy) that delineate a boundary between legitimate and illegitimate violence. As agents of destruction, then, weapons materialize or become intelligible through an apparatus in which specific objectives for fighting war and killing and injuring become appropriate" (p. 89).

However, what about weapons that materialize as an effort to not kill—to minimize injury and violence? How does the delineated boundary between legitimate and illegitimate violence transform the ways weapons are then employed in contested spaces and bodies? Geographies of non-lethal weapons must address fundamental conceptualizations of non-lethal weaponry to determine the changing dynamics of policing contested spaces and bodies in ways that preserve the (il)legitimacy of state interventionary power and violence. As such, this research seeks to address the underlying assumptions and questions about non-lethal weapons: How does a non-lethal weapon become one? What knowledge regimes, materials and norms are implicated in the process of weaponizing non-lethality? How are non-lethal weapons situated in the body-politics of violence?

Reflecting different assessments of conventional definitions, "non-lethal weapons" as a class of weapons, devices and munitions are explicitly designed and intended to incapacitate targeted persons or materials without death or permanent/significant injury and/or to disable equipment with minimal damage

to the surrounding environment (Davidson 2009; DoD 2013). Importantly, non-lethal weapons are intended to have "reversible effects" on personnel and/or materials (DoD 2013). Non-lethal weapons are orthodoxly categorized into eight classes: Kinetic Energy, Electrical, Chemical, Biochemical, Biological, Optical and Optical/Acoustic, Acoustic, and Directed Energy. However, generalizations of non-lethal weapons are unconstructive as the technical specifications, characteristics, operational and deployment parameters, and human effects are too diverse (Davidson 2009, 2013). The underlying growth of classified non-lethal weapons is dependent upon the growing assumption that state security apparatuses must fill the capability gap between "shouting and shooting" (LeVine & Rutigliano 2015, p. 242). Non-lethal weapons are classified in a labyrinth of paradoxes that will be examined further throughout this dissertation.

While the diverse range of weapon systems and technologies identified as "non-lethal" continues to multiply, definitional contradictions and ambiguities plague different assessments of non-lethal weapons categorization and classification. It would be reticent to ignore the primary concern of the present discussion, the term non-lethal itself. First and foremost, ambivalence and controversy stem from long standing disagreements over the merits and definitions of the term 'non-lethal'. Many scholars and experts believe that the term non-lethal as an overarching classification should be avoided and other terms such as "less-lethal" or "less-than-lethal" are more appropriate (Casey-Maslen 2010). The debate over the term non-lethal encompasses wider ontological and epistemological debates regarding how knowledge regimes, materials, and norms impact weapon design, development, and deployment. The divisive term 'non-lethal weapon' will be used throughout this project, rather than others or avoiding the term all together, strategically to mirror the global police-military-network's language. It affords an opportunity to examine how the language of security legitimates the weaponization of non-lethality, which is meant to facilitate broader policy, legal, and public acceptance. There is a conscious effort to soften the associated language and terminology of non-lethal weapons and this assists in the tendency to fetishize weapons technology (Peoples & Vaughan-Williams 2014; Rappert 2003).

The subsequent chapters examine that the legitimacy of non-lethality in weapons systems justifies the use of violence and (re)interprets how expertise, politics, science, and technology intersect to promote future trajectories of weapons increasingly wielded against citizens (Rappert 2003). Critically scrutinizing the discourses and imagery that legitimize insentient weapons serves to ensure that sentient human bodies are not ignored. The centrality of the body needs to be addressed within an analysis of non-lethal weapons. In contrast to the anathema of advanced weapons technology in warfare that disappears bodies, literally and emblematically, the actual violence inflicted on bodies by non-lethal weapons is both visible and calculable (Gregory 2016). The level of pain inflicted and the scale and longevity of injury experienced by the body becomes an important analytical determination in the development and deployment of non-lethal weapons (Rappert 2007a). More aberrant though is that the calculations of violence and injury aimed at the body is framed by non-lethal weapon's capabilities to defeat the recipient's resolve, the physical (and psychological) effects are subsidiary (Rappert 2003). A 'benign violence' becomes imaginable and intelligible devised within a continuum of force that simultaneously (re)defines state power and political subjectivity.

Non-lethal weapons emerge within and from systems of (non)lethality, legitimacy, and violence(s) through which metrics of injuring—and killing—are calculated and determined strategic necessities in policing contested spaces and bodies and preserving the legitimacy of state power in a new arm's race "to find weapons designed to keep people alive" (Rapper 2003, p. 18). In sum, non-lethal weapons are objects in perpetual formation that produce diverse desires and visions that derive from a range of policies and practices that maintain the normalcy of binaries of technical and non-technical, political and apolitical and social and asocial.

**Summary of Chapters**

This introductory chapter sets the stage for my research and introduces the ontological scaffolding and a brief synopsis of my theoretical framework, methods, data collection, and analysis (i.e., my research design) for the ensuing investigation to address my research questions listed above. Chapter 2 provides my literature context review. Transgressing disciplinary boundaries, I draw on literature in

political geography and Critical Security Studies (CSS) to provide an understanding of the intersections of policing, security, and (non-)lethality. The core objective in Chapter 2 is to identify key literature to situate security and non-lethal weapons in geography and advance conceptual ideas I develop in forwarding my critical geographies of non-lethal weapons.

Chapter 3 details my conceptual framework which draws greatly on STS. I employ STS as a conceptual framework to address how science and technological knowledge making and knowledge implementation are materialized through non-lethal weaponry as co-producing the ways state power is exercised and becomes entangled with policing space and bodies. I advance the notion that linking STS and political geography offers new ways of thinking about the geographies of non-lethal weapons. My conceptual framework situates non-lethal weapons within systems of knowledge, social practices, security norms, and frames, and embodied as their place in modern society develops.

Subsequently, Chapter 4 describes my overall methodology. I detail my methodological framework's background and basis for why discourse analysis is the principal methodology I employ to address my research questions. I define discourse and elucidate the significance of employing a Foucauldian discourse analysis. My research design employs content analysis and intertextual research models to organize and code data from a wide range of relevant source materials from official policy documents to military and police field manuals and think tank reports to media stories related to non-lethal weaponry. As the chapter concludes I delve into my analysis of the co-production of security and non-lethal weapons. Chapter 4 also includes a description of the research challenges I faced while conducting research in and on Bangkok, Thailand in which the military coup in May 2014 and its legalization under constitutional referendum in August 2017 limited my original access to sources and data.

Chapter 5 serves as my analysis chapter. I address my research questions by analyzing how non-lethal weapons change the dynamics of policing contested spaces and bodies by addressing and interrogating technoscientific and political/ideological framings of non-lethal weapons. Moreover, I consider the spatialization of technoscientific and political/ideological framings of non-lethal weapons. I

analyze the ways master and counter framings of non-lethal weapons produce discursive structures around security, (non-)lethality, and technoscience that shape the geographies of non-lethal weapons undertaken through forms of technological transformation and political violence.

Chapter 6 grounds my analysis with an empirical case study in Bangkok where the legitimization of non-lethal weapons in security governance reifies the false binary logic of the (non-)lethal distinction that the Thai military junta has successfully manipulated to exercise violence to quell political and social dissent in the name of law, order, and security. The case study illustrates the importance of my analysis and how non-lethal weaponry and security in Bangkok, Thailand foregrounds experts who co-construct security knowledge and expertise that is exercised to depoliticize and perpetuate apolitical security realities of non-lethal state intervention. A co-productionist STS approach investigates the specificities of its historical and social contexts, the material and social relations co-constructing the research object and knowledge about it, and the effects the research object has on other processes and relations. My case study account for messiness of doing research on non-lethal weapons, and affords an opportunity to employ methods to answer my research questions, not necessarily limited by disciplinary or methodological norms.

Finally, Chapter 7 provides concluding thoughts about the broader implications and impacts of this research. Importantly, this project imagines and promotes political mobilizations that are aimed at reflexive, anticipatory, and responsible participation and cooperation in contested spaces. A politics of this kind subverts hegemonic security-logic and promotes alternative possibilities for what a "sense of security" entails (Durodié 2006, p. 193). Overall, this research project asserts the idea that non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence while becoming stabilized in the global police-military-network. My research is situated to record those day-to-day technoscientific and state policies and practices that underwrite the (re)making of the conceptual boundaries of the state and individual bodies in relation to the deployment of transformative technologies like non-lethal weapons.

# Chapter 2
# Re-thinking Security: Non-Lethal Intervention in Policing and Security

## Introduction

The following literature context develops the scaffolding to examine the changing dynamics of policing contested space in relation to the conceptualizations of non-lethality in security. It is the first step in re-thinking security as non-lethal weapons continue to shape state interventionary power in contested spaces. The often-ambiguous relationships between governance and security, force apparatuses of the state and civilians, and the use of force and violence necessitates a widening and deepening of our knowledge. Transgressing disciplinary boundaries, I draw on literature in Political Geography and Critical Security Studies (CSS) to understand the intersections of policing, security, and non-lethality in the broadest sense, "this includes discourses, ideas, power relationships, bodies of knowledge, techniques of government, technologies, and the linkages between them" (Hanson 2006, p. 3).

This chapter proceeds in five main sections. The first provides a survey of key areas of research in geographies of policing and security and links it to the ways I engage CSS. This discussion is followed by an introduction to the 'global police-military-network' that serves as a principle spatial conceptualization in my project. Subsequently, I define 'space-taking politics' as a technique and model that has changed spatial and social relations in contested spaces as the proliferation of non-lethal intervention attempts to govern the unknowable and unpredictable. In the following section, I locate non-lethality in geography. Geographic literature on the logics of (in)security is vigorous, but less attention has been paid to non-lethality and its operation within contested spaces, contentious politics, and exercises of state disciplinary power. Finally, I conclude with remarks on the contentions of conducting research on state power and security.

## Political Geographies of Policing and Security

Geographers have made notable contributions to the geographies of police/policing and security. At its core, political geography is concerned with the spatial dynamics of power. Deliberations on meanings, genealogies, and conceptualizations of power lends themselves to decades of scholarship.

Traditionally, political geography centers on the state in the relationship between space and political power (Agnew 2002). While political geography has intensely diversified its areas of inquiry beyond the state my research project privileges the state. I do so because state power exercised by mechanisms (such as regimes, frameworks, institutions, technologies, practices, and materialities) of policing and security maintain the state's legal monopoly of the use of force and violence. Exercising legal force and violence is a crucial domain of the state. It not only claims a monopoly to its use but also monopolizes the decisions of what counts as "violence". The capacity of the state to exercise violence is intrinsically bound to its legitimacy to govern. Meaning, the state's aptitude to exert force and violence assists in the state's ability to maintain its own legitimacy. As such, the political geographies of policing and security continue to grapple with state power and violence in all its complexities.

Almost 30 years ago, Nicolas Fyfe published a paper claiming that research on the police was "conspicuously absent from the landscape of human geography" (1991, p. 249). Building upon Steven Herbert's (1996a, 1996b, 1997a, 1997b) seminal works, early research on the geographies of police and policing centers on police enforcement across different spaces and scales. Geographers identified and explored various everyday police functions like public reassurance (Yarwood & Edwards 1995), crime reduction and investigation (Herbert 1996b; Walker 2003), emergency services, (Mawby & Wright 2003) and public order maintenance (Herbert 1999; Fielding 2005). It was broadly conceived that the police embody the political geography of the state and illuminating these "micro-geographies of state power" exposed a litany of issues and concerns for political geographers conducting research on police and policing (Fyfe 1991; Jakson 1994; Keith 1993; Scarpaci & Frazier 1993). Despite Fyfe's call for geographers to engage police and policing in geography more another survey of the geographies of policing published 15 years later found that "interest in this topic remains on the margins of human geography's research agenda" (Yarwood 2007, p. 447).

At the same time, early geographers engaged security as a distinct area of inquiry only tangentially related to police and policing. Claims of "spatial differences" between policing and security divided intellectual labor on the broader relational geographies of policing and security (Yarwood 2007).

Analytical inquiry on the police and policing was limited to "places" while security was perceived to incorporate the broader concept of "territory." This division reflects perceived differences in spatial practices and geographic scale. Even recent scholarship divide conceptualizations of policing and security, though in more subtle ways. As Yarwood and Paasche (2015) argue, "*Policing* is most commonly associated with the 'maintenance of order, the control of disorder, the prevention of crime and the detection of offenders' (Rawlings 2008, p. 47) whereas *security* is concerned with the protection of people, places, or objects from threats" (p. 362). While I acknowledge geographic literature that stresses the subtle differences between policing and security, I follow the recent trend in political geography that recognizes the relationality of policing and security (Dalby 2010). Therefore, throughout this project the terms "security" and "policing" are considered within greater social and spatial assemblages of order, management, and discipline.

A relational approach allows for "policing and security to be considered relatively to and fluidly with each other" (Yarwood & Paasche 2015, p. 366). It recognizes the fundamental shift in (global) policing and security practices that continually transgress geographic scale encompassing a range of spatial practices as the traditional binaries of external/internal and military/policing blur (Bigo 2001, 2014). In other words, it considers the multiple sets of spatial and social relations and practices in policing and security that confront one another, reinforce, weaken, or otherwise relate to one another. More recent work on the relationality of policing and security highlight the diversity in the work political geographers are doing, how they do it, and why they do it (see Coleman 2016; Woodward 2016; Williams 2016; Shah 2016). In an era where policing and security have garnered an vast amount of public attention political geographers have engaged questions of state power and the racialization and povertization of policing (Mitchell 2010, 2011), the affective relations of police power (Woodward & Bruzzone 2015), the blurring of policing and immigration enforcement (Coleman 2012), transnational policing and security (Goldsmith & Sheptycki 2007; Bowling 2010), and the militarization of the police (den Heyer 2014; Radil et al. 2017). While this brief survey of the literature does not serve as a comprehensive review on

police and policing in geography, it indicates that political geographers have continued to make deeper engagements with the geographies of policing and security.

While my project draws on the literature above, my focus on the political geographies of security and policing relates to how particular security policies, practices, and materialities manage, order, and discipline contested space. To better facilitate this process, I draw significantly on recent scholarship in Critical Security Studies (CSS). While there are a range of critical approaches in CSS, "they are all constantly involved in judgements about what security means, and in deciding and discriminating what the objects and objectives of security studies should be" (Peoples & Vaughan-Williams 2010, p. 2). In particular, I am drawn to CSS because of its explicit orientation towards a "theory-practice nexus". The intellectual framework that theories of security inherently inform security practices (and vice-versa), such that "reconceptualized understandings of security and strategy might aid the transformation of real-world practices" (Wyn Jones 1999, p. 167). I engage the theory-practice nexus through two core ideas in CSS. First, I employ security as a derivative concept, the way security is thought about, given meaning, and enable practices derives from the multiplicity of ways the world is known and how it works more broadly (Booth 1991). Secondly, security cannot be divorced from its material existence and its embodied experiences and accounts (Buzan 1991; Wyn Jones 1999). Therefore, as a political orientation CSS affords an opportunity to engage critical theory through an emancipatory lens to reconceptualize how security theory and practice co-produce our world(s) (Booth 2007). I am interested in how police and security policies and practices securitize public spaces through various technostrategic discourses and practices of security aimed at managing bodies and spaces through which perceptions of threat, unease, and insecurity becomes spatially understood and articulated (Mitchel 2010). Therefore, I engage policing and security relationally linking political geography and CSS in three broad ways:

1) I investigate how policing and security practices of discipline, order, and management shape and define spaces and bodies as contested. The force apparatuses of the state that underpin state security power employ various geopolitical narratives and discourses aimed to identify and define notions of threats and danger. These (micro-) geopolitical narratives assist in generating notions of fear, chaos, and insecurity in perceived ungoverned space enacted among "deviant" bodies who occupy such space. Thus, state power is increasingly understood through the state's ability to generate novel forms of governance *through* security.

2) I examine the wider social and political networks that constitute policing and security in contested spaces through the lens of on-going technoscientific governance. I consider the ways security expertise mediates through different forms of knowledge—scientific and technological, political, cultural, legal, etc.—and how that expertise manifests as direct action exercised against bodies, often violently. For example, how the scientific community facilitates greater knowledge and understandings of technologies of social and political order (i.e., non-lethal weapons) assists in technologizing contentious politics.
3) I collapse the subtle distinctions between policing and security in my conceptual framework and engage them as co-producing social and political knowledges and orders with significant spatial outcomes. This conceptual framing affords an opportunity to better understand how discourses and materialities of security, technoscience, and (non-)lethality are vast, multiple, competing, and often contradictory while the security realities they produce continue to be quite stable.

Non-lethal weapons are bound not only to the dynamics of policing contested spaces and bodies, but also to how security logics are employed to preserve the legitimacy of state interventionary power and violence. I want to think about the ways technologies and techniques of state power 'make life' in spaces that are highly contested. I examine non-lethality and non-lethal weapons in state interventions with critical suspicion because as so-called solutions to the vulgarity of extreme violence and death in conflict non-lethality and non-lethal weapons continue to cause gross destruction, unnecessary suffering, and even death. Therefore, I am concerned with how non-lethality in state security continues to "*make things happen"* (Anaïs 2015, 52). Geographers have drawn significant attention to policing and security mechanisms contributing to a more comprehensive understanding of the ways state power shapes space. This project continues that trajectory by focusing on state sanctioned violence, the identification of bodies and spaces as threats, and the prioritization of science and technology in the service of state security agendas.

**Assemblages of Security: The Emergent Global Police-Military-Network**

Issues of security and governance are often linked in fundamental ways to questions about the stability of social and political order generally. In our current political climate speculation about a 'crisis of insecurity' globally drives increased state securitization (Sheptycki 2003; Murakami Wood 2017). To a degree, insecurity and society have become inseparable. It is commonplace to describe global civil society, the dynamic ensemble of linked social processes and phenomena, as perpetually "at war" against drugs, crime, terror, etc. (Keane 2003; Graham 2010). Indicative of a discursive and operative shift in

military-civilian relations, security is bound to the (re)imaginations of a blurred juridical and operations separation between intelligence, policing, and military doctrine across all scales (Graham 2010). As O'Lear (2018) argues, "Security is the new war and the primary motivation for military activity" (p. 130). Moving beyond domestic political accounts of security to explore transnational and international police/military relations illuminates historical contexts and contemporary manifestations of a growing interconnected global security agenda (Murakami Wood 2017).

Recognizing that there is no single source of security paradigms, a glimpse into the historical contexts of modern governance and state making provides insight into the current complexities of global governmental institution-building, of particular significance, a growing coordination of military and police paradigms worldwide. Geographers and other scholars have conducted—and promoted—noteworthy research on this phenomenon starting in the Age of Empire (Pratt 1992; Gregory 2012) and its subsequent violent and exploitive expression during Colonialism (Sharp 2008; Blaut 2012). Colonial powers used militarized disciplinary power to order, sanitize, and regulate spaces and bodies. As such, the mechanisms of policing and securitizing space and bodies was founded upon a constitutive power deployed and mobilized on the fabrication of a social and spatial order based upon a "Western" cultural imperialism (Gregory 2004; Neocleous 2008, 2013; Neocleous & Rigakos 2011). Significantly, as the tropes of colonial order spread from colony to colony it also had a considerable 'boomerang effect' (Foucault 2003). Modes of disciplinary power exercised were brought back to the "West" influencing the apparatuses, institutions, and techniques of ordering spaces and bodies (Foucault 1977, 1991; Graham 2010; Gregory 2011). As "testing grounds" of disciplinary power colonial spaces and bodies were targeted by a full spectrum of epistemic and embodied violence marshaled through ideologies of a permanent security (Graham 2010, p. 203). This hegemony of security then filtered, through less violent ways, back to the "West". So, while current scholarly buzz around the increasing (para)militarization of policing and the policization of the military escalates (see Radil et al. 2016), it has long been the case that geographical imaginations of disciplinary power and police/military relations are linked, politically, ideologically, and technologically to colonial ordering, sanitizing, and regulating spaces and bodies.

Colonial geographical imaginations not only instituted the scaffolding for policy/military relations but continue to function in conjunction with current global (security) ideologies, particularly neoliberalism. The pervasiveness of neoliberalism, in relation to world order in geography cannot be ignored (Springer 2008, 2010, 2011). While the intricacies of conceptualizing neoliberalism are outside the purview of this research (see Springer 2013, 2015, 2016), as a hegemonic ideology, it mutually reinforces security regimes that strengthen transnational police/military relations. The relationship or reciprocal constitution of security and neoliberalism traverses all scales of social and political life driving the proliferation of the "War on Terror" and building institutional collaboration around transnational organized crime (drugs, human trafficking, and weapons sales) in contemporary society (Edwards & Gill 2003). The collisions and cohesions of security and neoliberalism operate across a wide spectrum of "transnational insurgences" and offer a militarized framework through which to understand the world (Graham 2010, loc. 1429).

From a security perspective, primary objectives of global security institution-building today revolve around increasing the cooperation, capacity, and capabilities of interoperability among militaries, security forces and law enforcement agencies with heavy reliance on multilateralism and an operational pursuant to common Rules of Engagement (ROE) (Williams 2002; Watkin 2004). This militarily technical jargon conceals the deep undercurrents of political, social, and ideological frameworks that must align for this collaboration to be made possible. It is indicative of a blurring and blending of military, security, and police paradigms and discourses across space and within various political and social contexts. The normalization of militarized discourses muddies critique and romanticizes the aggressive disciplining of bodies and spaces. It constructs the threads through which the web of police/military relations transforms and becomes stabilized into formal police/military networks. It must be understood that these networks are not solely securitized systems organized around the reproduction of social and spatial order but also inherently supported by the political and social relationships that are (re)produced in everyday life

To assist in building a conceptual foundation in which to explore global police/military relations and networks, I turn to assemblage theory (Deleuze and Guattari 1987; DeLanda 2006). While there is a remarkable diversity in how 'assemblage' is employed in geographic literature (see Anderson & McFarlane 2011), I use the term to signal coded discourses, practices, and materialisms of global police/military intersections what I subsequently refer to as the "global police-military-network". The global police-military-network indicates concrete and material transfers of knowledge, technologies, and personnel across global security governance institutions and structures. In this respect, assemblage is used as a 'descriptor' within an assemblage-based analysis of socio-spatial relations (Anderson & McFarlane 2011). This means the global police-military-network, as an assemblage, is composed of a complex of heterogeneous elements that emphasizes "gathering, coherence and dispersion" (Anderson & McFarlane 2011, pp. 125-125). It indicates a collective synergy of relations between these elements that serve to assemble, re-assemble, or dis-assemble linked social, spatial, and material practices that are contingent, emergent, and transformative (Deleuze & Guattari 1987; DeLanda 2006). For example, as an analytic-descriptor the concept of global police-military-network identifies significant institutions and actors that draw strategic geopolitical calculations, promoting particular ways of being (or not being) and means of doing (or not doing).

In outlining the parameters of the global police-military-network, it is worth acknowledging the distinctiveness of each state's institutional development and governance, thus, each has its own security, police, and military history and future trajectory (Sheptycki 2003). Engaging geographic inquiry into the global police-military-network is not meant to ontologically flatten analysis of security, military, and police relations. Rather, it provides a wider lens in which to engage theorization. From this perspective, security governance transgresses seemingly distinct motives and agendas allowing for an analytical calculus of emerging trends and patterns in security ideologies, strategies, policies, and practices that have widespread impacts. For skeptics of the conceptualization of a global police-military-network, with regards to the character of a global security governance, it is important to ask questions as the power of security institutions is derived from their capacity and ability to exercise coercive and violent force

(Sheptycki 2003). What I argue though, is that security governance is shaping, and in turn shaped by, the global police-military network is currently undergoing a transformation related to how the use of force is exercised in ways that preserve the legitimacy of state power and violence in contested spaces. I believe this transformation is fundamentally linked to the ways in which technoscience and non-lethality have become entangled within the matrix of state security power that lead to highly calculated sociopolitical and spatial arrangements.

A vision of technological omnipresence and omniscience drives the global proliferation of technophilic state security regimes signaling startling capabilities in identifying, tracking, and targeting bodies (Graham 2010). As Staples (2014) argues, "We seem to be entering a state of permanent visibility where our bodies and our behaviors are being monitored, tracked, or watched continuously, anonymously, and systematically" (p. 5). The potency of technological advancement in the global police-military-network mobilizes vast processes of (re)innovation concerned with reducing perceived insecurity, deviancy, and disquiet ensuring docility of spaces and bodies (Witman 2006; Staples 2014). The pace of this change engenders enormous uncertainty in how technologies, like non-lethal weapons, are developed and used in the policing of bodies and spaces. What is certain is that technoscientific advancements and innovations in security are forceful and create unknowable futures in the global police-military-network (Brown et al. 2000; Van Lente 2000; Farrell 2006). Beyond the political and social determinations of how technologies of security are designed and used lie ideological imperatives, like ethical frameworks, that struggle to withstand the challenges of advancements in technologies designed and deployed to target, discipline, injure, and kill by the global police-military-network. The surge in interest indicated by broad security discourses in the moral and ethical implications of advance technologies in security, particularly in weapon systems, highlights the struggle to define the limits of security governance.

The evidence of temporal and spatial interconnections of the global police-military-network across the world today is driven by the primacy of the expansion of the United States (U.S.) security agenda (Gregory 2012). Since the Allied victory in World War II (WWII), the U.S., as the world's global super power, has engaged in the production of new forms of knowledge, constructed new categories of

(in)security, and redefined the global security landscape emphasizing the need for increased cooperation and stronger security networks. The U.S. not only spends more than any other state on security and defense, it has the most comprehensive military, security, and police training programs in the world. Attempting to hone its capabilities to conduct "full-spectrum" warfighting and defense, the U.S. drives the global police-military-network both ideologically and materially (Farrell 2006, p. 121).

Some examples are found in the joint United States Department of Defense (DoD) and Department of State Foreign Military Training Report (2015-2016). It elucidates that in 2015-2016, 55,900 individual security (both police and military) training events occurred in 154 countries impacting approximately 76,400 participants (p. ii). Also, the International Military Education and Training (IMET) program, a "highly effective component of U.S. security assistance", is used to promote education in building strong civilian-military relations for both military and civilian personnel in 119 states globally (MRT 2015-2016, p. II-2). The North Atlantic Treaty Organization (NATO) conducted 240 military training events in 2016 including the largest war game in eastern Europe (Anakonda) since the Cold War where 31,000 troops from 23 states participated (Duval Smith 2016). More recently, the 2017 iteration of Cobra Gold, Asia's largest annual multinational military exercise, featured 29 countries. The extension of military interoperability is not limited to conventional military operations but has also proliferated as domestic policing becomes more transnational. For example, under the International Liaison Program, the New York City Police Department (NYPD) has "intelligence officers" stationed in 14 international cities. Another example is the Bureau for International Narcotics and Law Enforcement Affairs (INL) that works with law enforcement and security institutions across the world, particularly in Central and South America, to combat the impact of international drugs and crimes (MTR 2015-2016). The more these networks expand and strengthen the greater the fetish of security becomes which befits the state's ability to "remodel expectations about political rights, individual liberties and social freedoms […] enabling the production of political docility" (Necleous & Rigakos 2011, p.48-49).

The views of political geographers to state power as a matter of *realpolitik* has increased the visibility of security policy and practice. However, the harder to come by, seemingly trivial rituals of

security policy and practice deliver specific understandings in how distinctions between foreign and domestic, national and international, society and state, and military and police is increasingly blended and blurred (Staples 2014; Coleman 2016). Promoting a conceptual global police-military-network not only renders the geographies of security perceptible and analytically developed but also assists in decoding the hidden geographies of security and connecting them to greater understandings of security and social relations (Kearns 2017). The military, police, and security forces that encompass the state's primary use of force entities must be analytically explored together as their ideological and operational union increases and is exercised as spatially-based coercive and violent force (Kraska 1997).

What is perceptible is that an emergent global police-military-network that is constantly evolving and has a range of unintended consequences, and is designed in relation to an increasing need by states to orchestrate and maintain social order strengthened by the hegemony of security (Bigo 2011; Kraska & Kappeler 1997; Anaïs 2015). But, as Sheptycki (2003) notes, "In a world that has gone global we must ask: whose order and how is it sustained" (p. 44)? The global police-military-network is a direct consequence of the techniques and technologies of security governance designed and deployed to remove perceived disorderly, disquiet, and deviant bodies and the paradigms (re)shaping the accountability and legitimacy of state power. Under the umbrella of a global security order, states continue to bolster their power to use repressive (violent) actions, hyper-surveillance, and persuasive rhetoric continually eroding citizens' liberties in the name of security, order, and stability (Jackson 2011; Kempa 2011; Rimke 2011). These pathologies augment the resurgence of state power and reinforce the current politics of security whereby global revolts, wide-spread social movements, and revolutions take to the streets, plazas, and squares contesting such politics (Mason 2013).

**Space-Taking Politics and Contested Spaces**

At a time when revolts, revolutions, and social movements are spreading across the globe, understanding why and how people engage in public assembly and collective action in public spaces has become ever more vital (Merrifield 2013; Uitrmark & Nicholls 2014; Eder & Öz 2017; Arampatzi 2017). Whether it is anti-austerity politics in Syntagma Square in Athens, Greece or pro-democracy resistance in

Taksim Square in Istanbul, Turkey, the visibility of contentious politics has considerably revived attention to the relationship between civilians and the state. Contentious politics is understood as "concerted, counter-hegemonic social and political action, in which differently positioned parties come together to challenge dominant systems of authority, in order to promote and enact alternative imaginaries" (Leitner et al. 2008, p. 157; Tarrow 2001). As contentious politics spills into the streets, public squares, and plazas of the world's cities, space becomes a significant vector of analysis. Space-taking politics, the spatial manifestation of contentious politics (demonstrations, occupations, mobilizations, protest camps, etc.), illustrates the possibilities of disruptive power of political subjectivity in everyday life (Lefebvre 1991; Feigenbaum et al. 2013; Daphi 2017). Furthermore, space-taking politics engenders a desire to create 'liberated spaces' and have become the single most important theme in ongoing social movements across the globe as contentious politics becomes spatialized (Leitner et al. 2008).

Geographic literature on space-taking politics is rich in theory and is primarily situated within urban geography (Leitner et al. 2008). The foundations of this literature stems from the writings of Henri Lefebvre. Lefebvre seminal texts, *The Right to the City* (1968)*, Space and Politics* (1973), and *The Production of Space* (1991) built a framework for an urban revolutionary romanticism that called for a radical restructuring of political, social, economic, and spatial relations in the city and beyond. The concept of 'the right to the city' developed as a significant source of theoretical inquiry in geography (Soja 1996, 2000; Purcell 2002; Mitchell 2003; Harvey 2013). The right to the city focused on the need to (re)address the power relations that form the foundations of the production of urban space, shifting control away from the state (and capital) towards urban subjects (Purcell 2002). According to Lefebvre (1996), "the *right to the city* is like a cry and a demand […] a transformed and renewed *right to urban life"* (p. 156). Using the foundation of the right to the city geographers extended the theoretical reach of Lefebvre, offering a multiplicity of impassioned possibilities for a new urban politics through social action (Mitchell 2003; Harvey 2013).

Research spatializing social action produced a wide range of case studies of both resistance and activism responding to a varied range of themes—globalization, environmental justice, immigration—but

focused primarily within urban contexts (O'Lear 1997, 1999; Purcell 2002). As Uitrmark & Nicholls (2014) argue, "Cities serve as sites of politicization because they are incubators of the relational conduits that enable activists from different sectors to engage with one another's struggles and look beyond narrow temporal and spatial horizons" (p. 970). A flurry of geographic inquiries into 'urban revolts' spawned greater attention to the ways contentious politics is spatialized and how geography "matters to the imaginaries, practices and trajectories of contentious politics" (Leitner et al. 2008, p. 158). Of major concern to geographers is how socio-spatial theories interact and inform the dynamics of contentious politics.

To answer these questions, early research on contentious politics and space tended to pick one theme and asserted its primacy obscuring the diversity of participants, motives, strategies, practices, etc. (Della Porta 2014; Erensü & Karaman 2017). Early geographers also regraded space-taking politics as 'exceptional' and temporally and spatially bounded often theorized through states of emergency (Adey et al. 2015) and or spaces of exception (Elden 2009; Agamben 2005; Gregory 2011). However, recent geographic research focuses less on "seeing social movement as 'event' or 'spectacle' to understanding social movement as a 'process' grounded in the 'everyday' and 'quotidian'- so that theoretical nuance can be produced" (Arampatzi 2017, p. 47). New political subjectivities emerge within and alter contentious politics and space in innovative and imaginative ways through social and spatial interaction (O'Lear 1997, 1999).

Space-taking politics seeks to re-order, disrupt, and re-signify space challenging the hegemonic norms and dominant systems of authority. The insurrectionary properties of space-taking politics are a reminder that, "there is a continuous struggle between competing forces speaking to define and control the use of space" (Starr et al. 2011, quoted in Daphi 2017, p. 35). A struggle increasingly defined by state policy interventions and practices tied to a tenuous and blurred distinction of police and military operations and use of force options in ordering and securing contested space and removing disruptive bodies. These blurring distinctions have geographical concerns but more importantly space plays a significant role in the activation and actualization of space-taking politics and state intervention (Jones

2009). Contested spaces become incubators for state interventionary strategy and practice whereby the state can test the thresholds of accountability, acceptability, and legitimacy of various rationalities, like non-lethality in use of force continuums, and technologies, like non-lethal weapons.

Space-taking politics—as a technique and model—has transformed as the proliferation of non-lethal intervention in contested spaces attempt to govern the unknowable and unpredictable. How specific security discourses and materialities of and within contested spaces shape interactions, even after the event, between civilian/public, security forces, apparatuses of the state, and (social) media, that has lasting effects on bodies and spaces, can be explored (Daphi, 2017). The disciplinary techniques of dislocating bodies and securing contested spaces are elaborate displays of power and knowledge inscribed on bodies (of civilians *and* security forces); they are an (dis)ordering of public spaces and a (re)shaping of the accountability and legitimacy of state interventionary policy and practice (Staples 2014; Coleman 2016; Woodward 2016; Williams 2016).

To secure highly contested space and dislocate bodies implies new forms of interventionary power that forge novel spaces between security mechanisms and civilian engagement. The theories and practices of dislocating bodies and securitizing space are beholden to use-of-force options. In the context of this research project use of force is understood as degrees or stages of force exercised through various techniques used to dislocate bodies and secure contested spaces. While diverse permutations involving the ways security mechanisms guide and clarify the stages of exercising force in use of force policies many are linked to a continuum, "which detail varying levels of force in terms of severity" and explicitly detail what is considered "objectively reasonable force" against civilians (Terrill 2005, p.110-111). A use of force continuum frames a simplified design indicating a perceived logical progression of force from tactical presence to lethal force. A very common use of force continuum is the "linear design" (Table 2.1), that is modeled in the form of hierarchical steps (McEwen 1997). Irrespective of what continuum design is employed, different security mechanisms maintain different ideas about use of force. An in-depth discussion on the use of force is outside the purview of this project (Lubell 2010; Gray 2018). However, two factors become central when thinking through use of force in state interventions: a belief

that a use of force continuum, as an operational administrative proficiency, depoliticizes the question of legitimacy in exercises of the use of force, and in the perceived logics of force disciplinary and sometimes lethal practices correct problematic social and spatial orders.

*Table 2.1*

| Force Level | Continuum | Use of force policy and practice description |
|---|---|---|
| Level 1 | Officer Presence | Physical appearance; professional bearing |
| Level 2 | Tactical Communication | Clear and deliberate verbal commands; strong non-verbal positions (empty hand/open stances, defensive stance, ready stance) |
| Level 3 | Physical Control | "Soft techniques": body holds, wrist locks and "Hard techniques": strikes, take downs |
| Level 4 | Defensive/Intermediate Weapons | Deployment of 'non-lethal' weapons: OC (pepper spray), batons, Tasers, K9, 12-gauge bean bags, 37mm gas or impact munitions, 40mm direct fire impact munitions |
| Level 5 | Lethal Force | Verbal warning, firearms, strike to vital areas, vehicles, weapons of opportunity |

The legitimacy of the use of force by the state generates significant debate as fundamental questions about what kind of force, how to measure force, and through what means force can be applied and justified against civilians (Rappert 2007). Moreover, how society permits the state's deployment of coercive, violent, and indeed lethal power through use of force is significant. The destructive potentialities of the global police-military-network requires massive effort to maintain its legitimacy. In other words, the use of force in the global police-military-network is imbued with legitimacy. However, as Rappert (2003) asks, "what does it mean to speak of force as having legitimacy" (p. 3)? To complicate matters further, questions revolving around non-lethality and the use of non-lethal weapons in use of force continuums draw a litany of different results (see Terrill & Paoline 2012).

The central assumption of security discourse revolves around the idea of security as a public good, a social contract between state and citizen (Rappert 2007). As such, a social contract reinforced by non-lethality in the use of force is a means of appropriating valuations of life. If the global police-

military-network is perceived to value the sanctity of human life above all else then its actions that order, discipline, and regulate space and bodies become a falsely benign clause of the social contract (Anaïs 2015). We, as citizens, accept the possibility of violence and death, as a legitimate means of achieving a greater sense of security pursued by the global police-military-network. To demystify the ambiguities that surround non-lethal state interventions in contested spaces we need enhanced reflexive and responsible understandings of the weaponization of non-lethality, which is meant to facilitate broader policy, legal, and public acceptance. Understanding how the legitimacy of non-lethality in security, state interventionary power, and weapons systems are used to justify the use of force and violence against bodies in contested spaces affords an opportunity to locate non-lethality in geographic research.

**Locating Non-Lethality in Geography**

As I stated above, geographic literature on the logics of (in)security is vigorous, but less attention has been paid to non-lethality and its operation within contested spaces, contentious politics, and exercises of state disciplinary power. It is not surprising that geographers and other social scientists engage theory and praxis of non-lethality in a limited sense as non-lethality assumes logics of "unremarkabilitiy" (Anaïs 2015). Research on political violence in geography tends to focus on "spectacle", the extraordinary, and/or moments of violent aberration (see Gregory & Pred 2007; Springer & Le Billon 2016). This statement does not serve as a comprehensive rendering of political violence in geography. Many scholars examine political violence through varied avenues of analysis such as "slow violence" (Nixon 2011; O'Lear 2016) and forms of "structural violence" (Galtung 1969; Inwood et al. 2016; Jones 2016). In this vein, I am concerned with the subtle and vastly nefarious ways political violence is co-produced in security through non-lethality. Non-lethality has become accepted within state interventions through complex web of socio-political and technoscientific relations as non-problematic. The increasing acceptance of the integration of non-lethality in the use of force and weapon design reveals non-lethality as "an intelligible solution to the ethical and legal quandaries brought about by the death, injury and destruction" in state exercises of force (Anaïs 2015, p. 6).

Following the groundbreaking work on non-lethality by Seantael Anaïs (2015), I believe that non-lethality must be understood as an assemblage composed of a complexion of heterogeneous relationalities between the politics of security, technology, and broader regimes of governance. The collective synergy of relations between these elements serve to co-produce linked social, spatial, and material practices of non-lethality in state interventions in contested spaces. Thinking through non-lethality in this way, I can begin to ask important "how" questions that lead to the techniques and forms of knowledge by which non-lethality operates in security:

1) How does non-lethality serve as a legitimating function in security?
2) How does non-lethality make wider programs of state interventionary power possible?
3) How does non-lethality shape social and spatial relations materially?

Examining these questions affords an opportunity to understand the ways non-lethality in security entrenches certain ethical assessments about the value of life and death and technological assumptions about weaponry which sustain moral and technical frameworks perceived to be unquestionable.

The legitimization of non-lethality in security governance reifies a (false) binary logic between policies and practices categorized as non-lethal on one hand and lethal on the other. The non-lethal/lethal binary institutionalizes perceived fixed and naturalized categorizations of violence in security governance. Also, it makes viable practices and materialities of violence inherently linked to technical objects (i.e.,, non-lethal weapons) used in security governance. This "non-lethal/lethal distinction" in security policy and practice operationalizes a security governance aimed to mitigate notions of threats, unease, and insecurity directed at bodies and spaces under the pretenses of justifiability, acceptability, and legitimacy of interventionary exercises of violence (de Larrinaga 2016; Shah 2017). The state's ability to assert the justifiability, acceptability, and legitimacy of the use of force generates the hegemonic "discourses, ways of speaking, ways of knowing, and ways of making ethical determination" that are so difficult to challenge (Anaïs 2015, p. 8). In other words, non-lethality serves to legitimate a range of policies and practices of security through the lens of state power and primacy in security.

Non-lethality has become a solution designed to strengthen the state's tenuous monopoly in exercising violence within an ethos of morality. Examining the ethics and discourses of morality within the *(non-)lethal distinction* uncovers the material specifications of injury, damage, and death through the use of technologies (weapons design) and bureaucratic administration (security strategy) that make wider programs of state interventionary power possible. The widespread adoption of non-lethality enables and embodies an accepted and expected ways of injuring (and killing) in state interventions (Shah 2017). The state evokes humanist discourses which sustain notions of valuing the sanctity of life when non-lethality directs state interventions. As the everydayness and familiarity of security continues to penetrate all aspects of life the boundaries between non-lethal and lethal have stabilized within modern security frameworks, instituting a materialized non-lethality that is a weaponized non-lethality. These normative designations of violent force are materialized through non-lethal weaponry and their technical calibrations. The technical specifications of ballistics, electric currents, decibels, etc., facilitate actual violence perpetrated against bodies by non-lethal weapons that is not only visible and calculable but understood as a moral alternative to death (Gregory 2016).

Challenging or questioning the state's motives *not* to kill in state intervention seems almost sacrosanct. One would hope that the state operationalizes technologies and bureaucratic administration to discipline, manage, and order spaces and bodies in ways that fosters life rather than ways that end life. It is not my intent to re-direct state's focus on their legitimate claim to take life but rather I want to think about the ways technologies and techniques of government 'make life' in spaces that are highly contested. I examine non-lethality and non-lethal weapons in state interventions with critical suspicion because as so-called solutions to the vulgarity of extreme violence and death in conflict non-lethality and non-lethal weapons continue to cause gross destruction, unnecessary suffering, and even death. Therefore, I am concerned with how non-lethality in security continues to "*make things happen"* (Anaïs 2015, p. 52).

Overall, non-lethality shapes the socio-spatial relations within modern security frameworks that cause a shift in how security happens, "It makes new forms of intervention possible; it makes new programs of political action acceptable; it makes certain ethical assessments seem natural and therefore

indisputable; and makes new technical and strategic realities possible" (Anaïs 2015, p. 6). I believe non-lethality extends the interoperability of the use of force in state interventions particularly through the development and deployment of non-lethal weapons that are meant to foster life of the individual and the state. By locating non-lethality within contexts of contentious politics and contested spaces in this way I can navigate the blurring between the state war machine and policing, order and use of force, and intervention and violence.

**Chapter Conclusions: Notes on Security, Policing and Geography**

This project is situated within knowledge production in three ways that must be addressed before an in-depth analysis can move forward. First, the state continuously produces new forms of knowledge in relation to security that shapes imaginations and social being as well as (re)defines reality in often ambiguous, covert, and unintelligible ways (Neocleous 2008). Over time, the state has successfully constructed a master narrative of security that legitimizes its ability to pursue violent and disciplinary exercises of power from civil law and order regimes to operations in theaters of war. To engage security through the lens of the state runs the risk of being coopted by its logic and serves a security that is violent, oppressive, and exploitive, "enabling a political docility in the name of security" (Neocleous & Rigakos 2011, p. 29). It is important to recognize the increasingly militarized grids of intelligibility through which the state pursues political, social, and spatial ordering and critique such conceptualizations.

Second, as part of the historical project of building a globalized police-military-network imposing neoliberal logics of (in)security across the world, a 'security industry' has emerged in tandem with and beyond the powers of the state (Neocleous 2008). Propagation of 'security risks', 'security measures', 'security information', 'security professionals' (etc.) shapes commercial practices that are motivated by profit. What was once identified as the military-industrial-complex has extended beyond the theatres of war penetrating spaces of everyday life and can be widened conceptually to be understood as a "security-industrial-complex" (Staples 2014, p. 59). Thus, how security becomes part of the sense-making of everyday life is driven significantly by "selling security" and generating conceived insecurities (Neocleous 2008; Åhäll 2016). It is imperative to acknowledge the wider culture of fear propagated by

the security industry that has very real consequences for peoples and spaces and resist analytical abstractness.

Third is the role that a growing security intelligentsia has in forwarding knowledge regimes that sustain normative ideologies of security. The ascendancy of security has demanded a growing intellectual undertaking. A variety of disciplines, Geography, Political Science, International Relations, and Security Studies to name a few, have methodically and meticulously studied – and promoted – the ostensibly indispensable nature of security. Through foundational agendas, models, perspectives, and concepts ontologies of security in academic work has become essential in the creation and reproduction of security knowledge, a knowledge that mimics the jargon of security and power itself (Neocleous 2008). While there is a significant growing intellectual critique of security, or techniques of security, underway there are limitations: "Critiques of security tend to broaden the analytic reach of security" (Rigakos 2011, p. 60). As such, this project is situated in an ongoing reorganization of critical work on security that pushes past analytical blockages (Neocleous 2008; Neocleous & Rigakos 2011; Hynek & Chandler 2013). In this context, my research reimagines the power of security in (re)defining our modes of life emphasizing future critical geographies that envisions alternatives to (non)lethality in our security worlds.

# Chapter 3 Conceptual Framework
## Science and Technology Studies: The Technoscientific Governance of Non-Lethal Weapons

### Introduction

Although, there are multiple, concurrent, and competing conceptual frameworks for engaging and understanding non-lethal weapons and state disciplinary power, this research draws heavily on Science and Technology Studies (STS). What this chapter demonstrates is that STS offers new ways of thinking about the geographies of non-lethal weapons, highlighting the often-invisible roles of knowledge, expertise, and technical practices in shaping, sustaining, subverting, or transforming relations of security and power (Jasanoff 2004). The chapter examines the ways state projects of security are produced and practiced through the transformative dynamics of science and technology in (re)arranging contemporary society (Felt et al. 2017). In doing so, I broadly consider the ways "science and technology shape how humans experience, imagine, assemble, and order the worlds they live in" (Felt et al. 2017, p. 1). More specifically, I explore how scientific and technological knowledge-making and implementation are materialized through non-lethal weaponry and co-produces the ways state power is exercised in contested spaces.

This chapter proceeds in seven main sections. In the first section, I provide an overview of my conceptual framework linking political geography and STS. Subsequently, I explore theoretical underpinnings of STS. In the following section, I trace the emerging relationship between STS and geography. The importance of space and place in STS is long debated (see Henke & Gieryn 2006) whereas the integration of STS in geography is relativity nascent and needing. In the next section, I discuss how adopting STS's notion of *co-production* within my conceptual framework addresses not only the theoretical rigor that STS bears on this project but also STS's growing methodological orientation towards *practice*. This discussion is followed by an exploration of technoscience as a core of security governance in modern security frameworks by theoretically engaging Foucault's (1979a, 1991, 2007, 2008) concept of "governmentality". Subsequently, I explore the intersections of STS, security, and knowledge making where I trace two major themes in the study of security and knowledge in STS and

how they inform my overall conceptual framework. The first theme centers on how we imagine security: the scopes and discourses of security (Vogel et al. 2017). The second theme addresses knowledge, non-knowledge, secrecy, and ignorance in how technoscientific legitimacy and accountability in modern state security frameworks are generated. Finally, I provide some general conclusions about taking an STS approach.

**Conceptual Overview: Taking an STS Approach**

A central concern of STS derives from the complexities of the production of knowledge and its ordering (Latour 1987). My conceptual framework coalesces STS theories and methods to offer new ways of thinking about the geographies of non-lethal weapons emphasizing knowledge production and implementation emerging within a technoscientific security governance that co-produces the ways state power is exercised in contested spaces. This affords an opportunity to understand how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence. There are three overall objectives as to why I use this conceptual framework in my analysis of the geographies of non-lethal weapons and how it is illustrated well in the context of my analysis and case study in Bangkok, Thailand.

The first objective is analyzing the global police-military-network as a site of co-production which creates both knowledge and social-security order. The global police-military-network is an assemblage of security actors, institutions, and mechanisms that manage highly politicized, competing, and contested technoscientific knowledge frames for security policy-making and implementation. The aim is to illuminate the competing master frames and counter-frames and emphasize a move towards greater transparency and accountability in security governance.

The second objective is to explore the transformative relationship between technoscientific knowledge production, state making, and everyday subjectivities. The politics of this co-production is both mundane and mysterious; “It is mundane about worldly things and accounts of their details—and mysterious—involving hidden agendas compounded by hidden contingencies” (Lynch 2006, p. 11). My

conceptual framework affords opportunities to challenge the security visions of states viewed as optimal in social, political, and spatial ordering of contested spaces.

The final objective is to understand the merging traces of technoscience and security governance that define our political and social futures as defined by security hegemony and omnipresence as innately embodied in everyday life. The relationship between technoscience, security, and (non-)lethality is dynamic and heterogeneous and is manifested in the daily practice of non-lethal weapons development and deployment (Anaïs 2015). Using this in conceptual framework, I situate non-lethal weapons as embedded in systems of knowledge, social practices, security norms, and frames, and embodied.

**Unpacking Science and Technology Studies**

As a vibrant intellectual field, STS embraces a range of theoretical perspectives, all purposely centered on exploring science and technology's place in society (Kuhn 1962; Latour & Woolgar 1979; Jasanoff 1996, 2004). STS considers how knowledge is produced beyond "the lab" or by specific individuals (i.e., weapon designers/scientists) and understands science and technology as actively social, "they do not provide a direct route from nature to ideas about nature; the products of science and technology are not themselves natural" (Sismondo 2008, p. 14). STS is diverse, multifaceted, and theoretically and methodologically dense. A quote which I believe sums up STS nicely is, "STS in one lesson? Not really" (Sismondo 2006, p. 13). Even so, this section provides insights into the historical formation of STS and the importance of STS in my conceptual framework. The theoretical grasp of STS progressively expands across the breadth of the social sciences "wherever people are engaged in creating knowledge and rearranging materiality" (Felt et al. 2017, p. 22).

If we begin with common notions of science and technology we become engrossed in the naiveties of positivism, falisficationism, and realism as well as the trappings of objectivity. Yet, it sets the stage so it must be briefly discussed. In simplistic understandings, science engenders a sense of "progress" by accumulating knowledge—towards discovery and searching for "truth"—using systematic, calculable, and repeatable procedures (Sismondo 2011). Science scans the "natural" world and formulates theories based upon empirical data that validates or invalidates such "truth" claims.

Technology sits secondary in this view of science as "technology is often seen as the relatively straightforward application of science" (Sismondo 2011, p. 8). The formal relations of science and technology center on a scientific rationality that places clear emphasis on defining what is science and what is not. This process of defining science became the foundation of what would emerge as STS's greatest debate—the "Science Wars". The "Science Wars" are in the past (for the most part) and from the rubble emerged an integrated field of STS that rejects scientific and technological determinisms as discussed below.

While there is no one linear way to trace the emergence of STS as a distinctive discipline over time, Thomas Kuhn's (1962) *Structure of Scientific Revolutions* is widely considered a seminal text in producing a field that becomes "science studies". Kuhn exposed the practical problems of science conceptualized above and used social theory to engage the broader political meanings of science (Turner 2006). Kuhn's research drew attention from a variety of disciplines where the "conflict between science as an authoritative technique and science as a form of life," were taking new forms (Turner 2006, p. 50). The easing of classificatory practices and discipline bordering between so-called scientific and non-scientific disciplines encouraged the growth of research related to the "social studies of science" and "philosophy of science". Initially, these areas of research tended to be highly abstract. The "sociology of science" transpired to ground the theoretical nature of this research. Latour and Woolgar (1979) cynically noted that these approaches "seem sometimes to have the sole purpose of proving merely that scientists are also human" (p. 11). Their early work sets the stage for the "social construction" of science that is the bedrock of the STS we know today (Latour & Woolgar 1979, p. 12).

Following Latour and Woolgar's lead, most early work in STS focused on how science and technology shaped society particularly the study of scientific communities and their practices (Latour & Woolgar 1979). Scholars were concerned with how knowledge production impacted the research process as well as the basis of their methodological practices. Understanding laboratory processes and practices afforded an opportunity to see how knowledge production becomes accepted and then entrenched

institutionally. Of significant concern emerged disputes over the authority of science and experts and their roles in the actual production of (scientific) knowledge.

Rather than leaping forward, STS approaches takes a few steps back, erecting scaffolding that emphasizes the importance of knowledge production itself. STS asks us to question and examine knowledge production—What are our objects of study? What kind of questions are asked? What kinds of data are collected? How and why is certain knowledge promoted? Using STS approaches acknowledges that in the process of making and understanding science and technology, we are in turn (re)made (Felt et al. 2017). As such, current STS work emphasizes understanding not only how science and technology shapes society *but also* how society, in turn, shapes science and technology.

Of course, our understandings of science and technology has transformed with rapid pace as much of the defining phenomena of human history is situated at the nexus of science, technology, and society (Jasanoff 2004). Whether it is the threat of nuclear annihilation or daily use of increased networked digital information gathering (i.e., cellphones), science and technology is highly influential in the ways we experience everyday life. Not surprisingly, STS has extensively contributed to understanding the complexities, sensibilities, and materialities of the relations of science and technology in modern societies.

Following the 'critical', 'cultural', and 'interpretative' turns in the social sciences in the 1970s, STS has grown into an intellectually multifaceted and dynamic field. STS "creates integrative understandings of the origins, dynamics and consequences of science and technology" and seeks to understand its various sources and meanings tapping into a variety of disciplines (Hackett et al. 2008, p. 1). As its foundational concern, STS investigates how scientific knowledge and technologies are constructed in *all* their complexities: ontologies and epistemologies, abstractions, and materialisms and their contested futures (Sismondo 2011; Woolgar & Lezaun 2013; Van Heur et al. 2013).

Unpacking the ontological complexities of STS exposes that we all "live in a world of *ontological multiplicity*" (Mol 2002; Law 2017, p. 43). Ontological multiplicity indicates that there are multiple simultaneous realities shaping our world(s); a heterogeneous relationality (Law & Singleton 2015).

Starting from the assumption that the development of science and technology are social and active, the field inherently understands that discourses, practices, and materialities of science and technology are interwoven with heterogeneous meanings, values, and societal power dynamics (Sismondo 2011; Jasanoff 2004). As Jasanoff (2004) states,

> "Scientific knowledge in particular, is not a transcendent mirror of reality. It both embeds and is embedded in social practices, identities, norms, conventions, discourses, instruments and institutions—in short, in all building blocks of what we can term the *social*. The same can be said even more forcefully of technology" (pp. 2-3).

Therefore, science and technology are not solely empirical phenomena but are deeply social (Jasanoff 2004; Carrol 2006; Pickering 2013). Importantly, STS maintains an aversion to universalist claims about science, technology, knowledge, and even STS itself (Lynch 2006). This affords an opportunity to engage a variety of anti-essentialist positions regarding science, technology, and society: "The sources of knowledge and artifacts are complex and various: there is no scientific method to translate nature into knowledge, and no technological method to translate knowledge into artefacts" (Sismondo 2011, p. 10). Regardless of the seemingly immutable nature of science and technology there are always multiple potentialities, representations, and interpretations (Sismondo 2011). STS's focus on heterogeneous relationality allows for in-depth ontological and epistemological scholarly inquiry.

As STS continues to diversify its ontological reach, research on technoscience has proliferated widely in the social sciences. The connections between technoscience and social, political, and spatial realities makes meaningful the ways in which bodies, spaces, and socio-political relations are articulated and enacted (Michael 2006; Sismondo 2011; Jasanoff 1996, 2004; Borrás & Elder 2014). As Felt et al. (2017) argues; "STS scholarship emphasizes that in the process of making science and technology, people also make and remake themselves, their bodies and identities, their societies, and their material surroundings" (p. 1). A range of critical perspectives, such as 'feminist technoscience' (Haraway 1997; Åsberg & Lykke 2010) and 'postcolonial technoscience' (McNeil 2005), have forcefully drawn attention to the ways in which, "the discursive and material aspects of sociotechnical relations and processes of materialization are inextricably intertwined" (Åsberg & Lykke 2010, p. 301). Building upon these critical

perspectives, subsequent sections focus on the importance of technoscientific processes and relations between discursivity and materiality and subjectivity and embodiment in security knowledge and practice (Lykke 2008).

Scientific knowledge and technology are ever more present in everyday life as their co-constitution with our social and political world(s) transpires at a rapid pace (Braun & Whatmore 2010). Whether engaging mechanisms of military power, practices of governance, economic invention, moral and ethical frameworks, ideological imaginations, or social change science and technology continually shapes the world around us (Felt et al. 2017). It is my belief that the shifting ontologies of STS around the contingency and indeterminacy of *what is known* and *how it is known* is an important connection between STS and geography that can be explored. Together, our values, desires, and imaginaries shape the making of that very same knowledge (Felt et al. 2017). STS finds its objects of inquiry wherever knowledge is produced and materiality (re)arranged.

Overall, STS is an intellectual space that offers invaluable insight into the constant transforming processes and practices in which ontological determinations of non-lethal weapons form. It calls into question who can make legitimate knowledge claims about non-lethal weapons and who gets to define what matters in imagining and shaping the future of non-lethal weapons. In posing these "who questions", I am actively considering alternative conceptualizations of non-lethal weapons. STS affords a lens in which to address the ways that science and technology produce configurations of the social, political, and spatial realities of non-lethal weapons (Law 2002). Non-lethal weapons demonstrate how scientific and technical knowledge-making is incorporated in practices of state governance, and, in reverse, how practice and state governance influence the making and use of knowledge.

**STS and Political Geography**

I believe greater engagements between STS and geography can produce analytically rigorous research on a range of contemporary issues transgressing geographic scale—security, climate change, globalization, migration—important to the development of geographic knowledge. Specifically, I contend that STS can extend the already robust literature on security knowledge and practice in political

geography in ways that are more attuned to the changing dynamics of a "technoscientific security governance".

STS wrestled with space and place for quite some time (Wilbanks 2004; Henke & Gieryn 2006). Beyond the obvious engagement of STS research in examining places *where* science happens (i.e., laboratories, field stations, archives etc.), STS research has also theorized *how* the geographies of science, technology, and society interrelate (Livingstone 2003, 2010). STS confronts normative ideas that space and place "pollute the credibility of science" and reject science's perceived "universal" nature (Henke & Gieryn 2006, p. 369). The debates about space and place in STS are indicative of how STS scholars challenge the "hands off" attitude towards science that plagues much of the social sciences. Rather than imagining science "as floating transcendent and disembodied about the messiness of human affairs", STS locates science and technology in space and place (Livingstone 2010, p. 179). Even with STS's engagement with spatial perspectives, geographers have been slow on the uptake of STS in relation to other disciplines.

While geographers have made occasional incursions into STS, when engaging science and technology the tendency in geography is to "neglect STS's theoretical insights [...], focusing rather on its methodological contributions" (Furlong 2010, p. 461; Dixon & Whitehead 2008). Methodologically, geographers have mapped the geographic diffusion of scientific discoveries and technological innovations over space and time (Wilbanks 2004). This research is noteworthy but the lack of theoretical engagements with STS is a gap geographers must fill. While there are notable exceptions (Barnes & Farish 2006; Asheim & Gertler 2006; Whatmore 2006; Leydesdorff & Persson 2010; O'Lear 2016), the theoretical blindness and methodological focus of geographers mitigates the conceptual robustness that STS offers.

Assimilation of STS in geographic research tends to focus on normative understandings of a distinct ontology of technology or the geographies of technology focusing on the materiality of technological objects (see special issue *Social and Cultural Geography* 9(6), 2008). Other STS-Geography integrations are situated in early studies that employed 'Actor-Network Theory' (ANT)

(Bosco 2006). ANT, developed by leading scholars in STS, Michel Callon (1986), Bruno Latour (1987), and John Law (1987), is a general framework that attempts to understand the interrelations of science and technology and posits that technoscience is central to the idea of modernity. In STS, ANT is a materialist theory that translates how "science and technology explicitly engage in crossing back and forth between objects and representations, creating situations in which humans and non-humans affect each other" (Sismondo 2011, p. 67). In other words, ANT in STS focuses on understanding the production of scientific knowledge and its material forms. As ANT flourished across the social sciences it largely collapsed into other theoretical baskets, such as materialist theory, focusing less on the production of scientific knowledge;

> "Since its original focus on the construction of scientific knowledge, ANT has gone much further and transcended disciplinary fields. Today, scholars, including geographers, follow a similar route—that of tracing heterogeneous associations among many things—to understand the construction of the social in general" (Bosco 2006, p. 150).

Although, STS is consistently looking to neighboring disciplines "to enrich ways of capturing, describing and intervening in the world", geography tends to retreat behind its permeable disciplinary boundaries (Felt et al. 2017, pp. 24-25). Opening a stable space for geographers working at the interface of STS and geography is a difficult task. I believe that political geography's well developed and critical approaches to the dynamics of 'the political' and power and its spatialities complement STS's approaches to understanding knowledge production and its technoscientific materialities (see O'Lear 2016). Integrating STS and critical concepts in political geography related to security creates intellectual space to engage ontological multiplicities and novel epistemological and methodological frameworks regarding security policy and practice of non-lethal weapons.

Specifically, I draw on recent trends in critical feminist geopolitics, that center the body, as a significant vector of analysis that bring STS and geography closer together. Critical feminist geopolitics is a way to identify, analyze, and critique the formation of various constructed identities directed at the body through material relations that are often excluded from conventional socio-spatial politics (Tyner

and Henkin 2015). Like STS, it is purposely subversive in that it offers counter-narratives to conventional understandings of knowledge and power.

Recent critical feminist scholarship examines relations among intimacy, violence, and geopolitics that politicizes understandings of the intimate and readdresses the primacy of macro-level geopolitical policies and practices that render the body invisible in such relations (Pain 2015). "Intimacy-geopolitics" connects violence across scale and rejects the spatial hierarchy between the international or geopolitical on one hand and the everyday or intimate on the other (Pain 2015, p. 64; Bernazzoli 2015; Massaro 2015; Sjoberg 2015). Weaving critical feminist geopolitics and STS in my conceptual framework recognizes that the production of knowledge and practice of non-lethal weaponry transpires in ways that are attuned to the (dis)entanglements of objects, assemblages, events, processes, and practices that uncovers networks, connections, and relations. It highlights embodiment, strengths of affects and meaning between entities and relations between humans, non-human beings, and non-living things (Moss & Donovan 2017). As a critical geographer acclimatized to STS theory and practice, I can reveal the co-produced relational spatialities and geographies of security, non-lethality, and technoscience.

**STS, Security and Practice: Adopting Co-production as a Theoretical and Methodological Approach**

Beyond the rich diversity in STS's theoretical and conceptual frameworks STS takes novel approaches to methods and practice. There is a growing trend in STS towards 'practice' and how practices manifest in relational ways that blur traditional distinctions between knowledge and methods (Law 2008, 2017). STS accepts the messiness of research and works through the ways knowledge, practice, and materiality structure the world together (Jasanoff and Kim 2015). The growing trend towards practice in STS and materiality in political geography fits well in understanding how non-lethal weapons are (re)produced and what non-lethal weapons actually *do* and *make happen.* Therefore, moving towards practice in STS scholarship is of significant concern in my conceptual framework. It recognizes that technoscientific practices are methods that shape and (re)produce our social and security worlds. As Law (2017) maintains,

> "STS suggests that methods are never simply techniques. Theories, methods, the empirical, modes of writing, disciplinary structures, audiences, authorities, and realties—all are staged together. Other candidates are jostling to join the list, including organizational structures, career concerns, social, economic, technical and publishing infrastructures, and imaginaries, national or otherwise" (p. 47).

In other words, STS investigates the practices of doing technoscience across a wide array of social and political relations and interests. For example, how non-lethal weaponry is designed can move beyond simple understandings of technical manufacturing schematics and starts to unravel the complex sociotechnical assemblages of social and spatial ordering embedded in the ways expertise, technical infrastructures, and imaginaries work. This affords an opportunity to focus on the ways theory, method, and the empirical function within the ways non-lethal weapons are understood, designed, developed, deployed, and legitimated. As Law (2017) argues, "STS focus on practice means that theory, method and the empirical get rolled together with social institutions (and sometimes objects). They are all part of the same weave and cannot be teased apart" (p. 32). In other words, I can begin to explore the ways epistemic knowledges, technoscientific framings, and social orders are all *co-produced* in state interventions and deployment of non-lethal weaponry (Jasanoff 2004; Felt et al. 2017).

My conceptual framework is grounded by the STS-sourced co-productionist framework that critiques normative knowledge regimes by exploring often unacknowledged dimensions of ethics, values, lawfulness, and power within knowledge and practice that constitute science, technology, and society (Jasanoff 2004). Co-production implies the mutually constitutive and inherently intertwined nature of technoscience, politics, and society in theory and practice (Chilvers & Kearnes 2016). It makes note of the social dynamics of cognitive commitments and understandings as well as emphasizes the epistemic and material relations of those very same social dynamics (Jasanoff 2004). Co-production can be defined as

> "the proposition that the ways in which we know and represent the world (both nature and society) are inseparable from the ways in which we choose to live in it. Knowledge and its material embodiments are at once products of social work and constitutive of forms of social life; society cannot function without knowledge any more than knowledge can exist without appropriate social supports" (Jasanoff 2004, p. 2-3).

The co-productionist framework is helpful in unveiling the consequences related to the 'expertise' associated with producing forms of knowledge and social, political, and spatial order. As a critical framework, it seeks to avoid the traps of both social-political and technoscientific determinisms that are often maintained in relations between order and knowledge, such as ethical and moral hazards. Using co-production prompts an acknowledgement that knowledge both embeds and is embedded in institutions, representations, practices, and is embodied as social subjectivities (St. Clair 2006). From this perspective, "ways of knowing the world are inseparably linked to the ways in which people seek to organize and control it" (St. Clair 2006, p. 66). Thus, co-production is not limited to abstract theory or ideas but is equally material and practiced (Jasanoff 2004).

There are several recurrent and overlapping research areas of interest in STS scholarship that offer a means of organizing work in the co-productionist framework that are relatable to non-lethal weapons. In each of the focal areas discussed below, work in the co-productionist framework stresses the constant intertwining of the cognitive, the material, and the social (Jasanoff 2004, pp. 5-6, emphasis added):

1) *Emergence and stabilization* of new objects or phenomena:
   New discourses about new objects and phenomena reflect specific means of representation that fosters new understandings and political and social orders (Latour 1987, 1993). Regarding the emergence and stabilization of non-lethal weapons, it is important to investigate how people recognize them, classify them, and assign meaning to them thus creating new discourses in which to speak of them. Understanding the complex discourses of non-lethal weapons is the foundation of my methodology discussed in Chapter 4.
2) The framing and resolution of *controversy:*
   The resolution of controversy elevates forms of knowledge, policy, and practice that determines its supremacy over other forms of competing knowledge, policy, and practice. For example, the ability for military, security, and police institutions to legitimize the sensibility of non-lethality in use of force options becomes more difficult to confront as their experts frame the controversies themselves without much public debate.
3) *Intelligibility and portability* of the products of science and technology across time, space, and institutional context:
   The intelligibility and portability of non-lethal weapons is structured by their representation and framing in knowledge regimes. The development, procurement, and deployment of non-lethal weapons is considered in largely technical terms and they are treated as options that resolve difficulties, not ones that would raise social, ethical, and political questions of their own.
4) The *cultural practices* of science and technology in contexts that endow them with legitimacy and meaning:
   This inherently relates to the cultural practices of non-lethal weapons in contexts that endow them with legitimacy and meaning. For example, the ways security experts create, with credibility, the standards of violence and metrics of injury impacting how non-lethality is understood and practiced in use of force continuums across the global police-military-network.

I use the co-productionist framework in STS as offering new ways to think about power and governance more generally as it presents more varied and dynamic ways of conceptualizing knowledge regimes and social-political structures, orders, and categories (Jasanoff 2004). First, I examine the role and meaning of non-lethality in security and how they produce uneven geographies. Second, I challenge master narratives/framings of non-lethal weapons use in state interventions in contested spaces. Finally, I propose that understanding power and governance in an era where non-lethal weapons are legitimized as a violent means of compliance can be understood better through a technoscientific governance. From this perspective, the projects of social and political ordering which emerge from the integration of non-lethality in security cannot be uncoupled from power and (a technoscientific) governance.

Employing co-production unpacks STS and develops greater understandings that stress the interconnection between the macro and the micro between knowledge, practice, and materiality in security studies. This greater understanding assists in increasing the transparency of the influence of technoscientific policy and practice in security frameworks. It brings sources of social, political, ethical, and moral dynamism to the forefront of technoscientific debates, deliberations, and determinations. Co-production allows for new topologies of theory, empirical inquiry, and practice that shapes security, state power, non-lethal weaponry, and political subjectivity as relational and emergent (Chilvers & Kearnes 2016).

**Non-Lethality, Security Governance and Technoscience**

Understanding the nature of security governance is a complex, multidirectional, and polymorphous challenge. Acknowledging the limitations of our capabilities to understand—in all its complexity—the nature of security governance, I engage "governmentality" (Foucault 1979a, 1991, 2007, 2008) to understand how modern state security governance has become inexorably bound to technoscience, discursively, materially, and through practice. I posit that technoscience is a core of security governance in modern security frameworks. Of course, this point is not to argue that security is driven by technoscience alone. Rather it focuses on how the shifting dynamics of security are in part

constituted by technoscientific knowledge, practices, and material objects as seen throughout my case study.

A recurring theme within STS concerns the relationship between science, technology, and the realm(s) of political power and institutional exercises of such power (Irwin 2006). STS perspectives on security governance draw critical reflection and empirical examination on the representations, meanings, and relationships of broad rules (laws), networks, institutions, and actions on security, scientific, and technological matters (Chilvers & Kearnes 2016). I believe that STS has much to say about key concerns in political theory—power, political legitimacy, public participation—and we can start by understanding the mutually constitutive relationship among non-lethality, security governance, and technoscience.

In contemporary security governance, the (non-)lethality distinction forces us to think about the mixing and integration of science, technology, and security in the global police-military-network in new ways. Building upon Andrew Pickering (1995a, 1995b), these processes, practices, and elements occur because of "mangling". Mangling is a dynamic and reciprocal transformation of entities and phenomena interrelating (Pickering 1995a, 1995b; Barnes & Farish 2006). In this case, science, technology, and security are mangled. As they interact, their knowledge base and practices change considerably and rarely can be understood in their original forms. Mangling provides a means in which to understand changing dynamics of state governance and interventionary power in relation to the genealogy of non-lethality in security (Anaïs 2015). A specific rationality of governance inspired by the mangling of non-lethality, technoscience, and security facilitates teasing out various relations of power:

> the world-building alliances of humans and non-humans in technoscience shape subjects and objects, subjectivity and objectivity, action and passion, inside and outside, in ways that enfeeble other ways of speaking about science and technology. In short, technoscience is about worldly, materialized, signifying and significant power (Haraway 1997, p. 51).

The relations of power embraced between technoscience, security, and non-lethality shape *actual* relations of the global police-military-network through a multiplicity of modalities of power: sovereign interventions, disciplinary techniques and technologies, and apparatuses of security (Foucault 1979a, 1979b). While a range of theorists provide essential contributions in addressing the relations of these

modalities of power, Michel Foucault's (1979a, 1991) understanding of the emergence or workings of power through his concept of "governmentality" underpins this conceptual framework. Arising from his seminal work (1979a), governmentality emerged as a salient approach in rethinking politics, society, and power: "It made explicit a different relationship between governance and the subject as a way of drawing together the micro and macro analyses of power" (Bratich et al. 2003, p. 4). Over time, Foucault's work on power shifted across his theorizations of discipline (1979b), panopticism (1979b), biopower (1985) and self-formation (1988), all influencing his ongoing work on governmentality (Huxley 2007). I argue that the mangling of non-lethality, technoscience, and security constitutes a technoscientific governmentality. In practices of security, a technoscientific governance assists in working through the ways that non-lethal weapons, as a technology of governmentality, produce certain forms of power and security that (re)shape state interventionary power and political subjectivity.

In simplest terms, Foucault's theory of governmentality refers to the arts and sets of rationalities, technologies, and techniques used for directing subjects and regulating their *conduct* "where the conduct of conduct is the key activity" (Bratich et al. 2003, p. 4; Foucault 1991). Foucault purposefully leaves the term "conduct" suspended in a state of ambiguity; "to 'conduct' is at the same time to 'lead' others (according to mechanisms of coercion that are, to a varying degree, strict) and a way of behaving within a more or less open field of possibilities" (Foucault 1994, p. 341). In doing so, it enables us to negotiate the "art of government" in different ways. Foucault situates the "conduct of conduct" as the central problem to government as competing forms and sources of power emerge simultaneously (Foucault 1991). It reexamines the traditionally statist views of the relationship between governor (the state) and governed (subjects). Governmentality allows us to understand governing as practices that are diverse beyond core functions of the state and recognizes that power emanates from numerous sources outside (and within) the state. The conduct of conduct is created at countless sites through various sets of rationalities, technologies, and techniques including schools, medical facilities, prisons, religious centers, and scientific laboratories (to name a few). For the purposes of my conceptual framework, conduct is understood through the lens of mechanisms of coercions both theorized and materialized. This approach offers an

excellent opportunity to understand technoscientific knowledge production and how it shapes materialized security practices.

In relation to technoscientific knowledge production, we can draw upon Foucault's (1991) observations about "power/knowledge". This conceptualization of governmentality centers knowledge production; "the practice of government involves the production of particular 'truths' about these entities. In seeking out the history of these truths, the literature on governmentality offers critical insights about the constitution of our societies and our present" (Larner & Walters 2004, p. 2). Exploring these truth regimes involves exploring the entanglements of the production of knowledge and processes of subjectification in the construction and guidance of (self-) conduct. Moreover, as Foucault (1988) states, "The main point is not to accept this knowledge at face value but to analyze these so-called sciences as very specific 'truth games' related to specific techniques that human beings use to understand themselves" (p. 17). While Foucault's influence in STS is light in comparison to other fields of social science, STS approaches appreciate the need to understand the production of knowledge. A technoscientific governmentality, then, allows for an analysis of knowledge production that assist in disciplining, fostering, managing, and monitoring the conducts of individuals, institutions, and the state.

Furthermore, Foucault (2004) also provides the conceptual framework in which to understand materialized security practices and how they shape technoscientific knowledge production through his notion of "counter-conduct" (p. 200). Counter-conduct emerges from Foucault's attempts to wrestle with ideas of power/resistance. As Foucault (1990) states, "where this is power, there is resistance" (p. 95). The concept can be understood in terms of challenging knowledge and practice exercised in conducting others. Scholarship on the concept of counter-conduct is rich particularly in relation to contentious politics (Death 2010; de Larrinaga 2016). Death (2010) uses Foucault's conceptualizations of conduct and counter-conduct to assess social movements, protests, and dissent. In doing so he designs an "analytics of protest" (Death 2010, p. 236). Death's analytics of protest destabilizes traditional binaries, highlights the inescapable interrelations between relations of power and "is specifically designed to show how protest and government are mutually constitutive" (Death 2010, p. 236). The same can be said about

the interrelations among relations of non-lethality, technoscience, and security and their materialization in non-lethal weaponry.

Following Foucauldian logic, technoscientific governmentality regarding non-lethality informs power that deliberately intervenes in citizens' everyday lives to simultaneously foster the conduct (read: life) of the individual and the state (Bratich et al. 2003). In my conceptual framework, non-lethal weapons are technologies of governmentality—produced through assemblages of power/knowledge, conduct, and counter-conduct that make interventionary forms of governance possible and legitimate (Death 2010; Anaïs 2015; de Larrinaga 2016). Engaging a technoscientific security governance is not a straightforward process, the magnitude and pace of the transformations in technoscience and security and how they inform and manipulate competing futures is vertiginous. As such, my dissertation aims to demonstrate that an STS-sourced technoscientific governmentality stabilizes everyday technoscientific and security knowledge and practice and human bodies and nonhuman objects that assemble our world (Braun & Whatmore 2010). It facilitates greater understandings of how technoscientific knowledge and technologies of social and political order (non-lethal weapons) are rendered meaningful in policing contested spaces.

**STS, Security, and Knowledge Production**

STS has, with great effort, exerted itself as a source of analytical understandings of the conceptual foundations of contemporary social and political theory (Lynch 2006). Today, research in STS explicitly explores growing political questions around security. As political theory within STS cultivates relevance, the matrixes of politics and power become increasingly difficult to remove from the movements of technoscientific change (Jasanoff 2004). Expectedly so, STS has significantly contributed in analyzing technoscientific transformations of security given its focus on the social and political dynamics of science and technology.

As our security environment becomes more intricate, technoscience continues to influence security governance in distinctive ways. I focus on the shifting and often ambiguous dynamics of knowledge making and implementation in security frameworks. As Vogel et al. (2017) argue, "The

process of knowledge making has been identified as crucial to both the making of security and the broader implications of security mechanisms (such as regimes, frameworks, technologies, practices, and materialities)" (p. 973). As such, practitioners of STS conduct research that constructs a "STS-security interface" (Vogel et al. 2017, p. 974). STS scholarship working at the forefronts of the STS-security interface assists in "opening up the black boxes of science and technology" to better understand and respond to current global security challenges (Miller 2017, p. 909). Broadly, three key STS-security interface ideas—design, innovation, and expertise—serve as my foundation to explore knowledge production in relation to non-lethal weapons.

Employing STS, I conceptualize *design* in relation to non-lethal weapons beyond the limitations of technical determinisms of objects. The social relations embedded in the design process must be investigated as well to understand how non-lethal weapons have become stabilized within the global police-military-network. Investigating design in relation to its sociotechnical complexity affords an opportunity to understand what components and materials are used, how and why they are used, who partakes, and to what result. More importantly, STS (re)politicizes the science and technology of weapons design. Implicitly, non-lethal weapons are designed to maximize compliance while minimizing the risks of lethal results. STS considers how the science and technology of non-lethality operate within and related to non-lethal weapon design that enable legitimate exercises of state interventionary power. Thus, I examine the design of non-lethal weapons beyond their technical drawings, measurements, and material moldings to understand their implicit sociotechnical dynamics in my analysis and case study.

Using the STS-security interface, I consider *innovation* as a continual process of transformation through which technoscientific knowledge, objects, and practice are co-produced. Innovation, particularly technological innovation, is invoked as a dominant narrative/frame and solution in confronting some of society's greatest challenges (i.e.,, climate change, terrorism, migration etc.). Non-lethal weapons are framed as innovations in policing and securitizing that fosters life considering greater shifts in humanitarian ideals, ethical frameworks, and moral responsibility within the (non-)lethality distinction. By examining how non-lethal weapons are treated as innovations across the global police-

military-network assists in understanding why their continued deployment is increasingly normalized in contested spaces. Security continually innovates, nurturing a competitive environment (driven by profit and master narratives) among actors, institutions, and peoples that become reliant on knowledge production, and in particular, *expertise*.

STS research challenges normative assumptions about experts and expertise. Rather than understanding expertise as just the retention of knowledge, STS investigates how the production of knowledge is organized and regulated. Who gets to participate, in what ways, and when do they throughout the process? Who is imbued with the accountability of authority about knowledge; and what systems and norms are used in producing and operating knowledge in significant societal decisions (Miller 2017). Knowledge exists across relations of power and authority that are central to how knowledge and knowers are employed in governance. Security expertise is situated at the apex of power/knowledge;

> As societies confront contemporary social and political challenges, the framing and analysis of problems and solutions is profoundly influenced by how societies define what counts as expertise, who counts as an expert, how expert advisory institutions are organized and what authority experts are granted in relation to other participants in decision processes (Miller 2017, p. 912).

Overall, how security experts design and pursue innovation concerning non-lethal weapons becomes essential to understand how non-lethal weapons are stabilized within the global police-military-network and their transformative power in shaping the dynamics of policing contested spaces and bodies. All of which preserve the legitimacy of state interventionary power and violence. Design, innovation, and expertise transpire within two major themes of the STS-security interface related to the geographies of non-lethal weaponry that I will detail below.

***Theme #1: Imagining security: the scope, boundaries, and discourse of security***

One of the most important themes at the forefront of the STS-security interface centers on the ways we *imagine security*. STS interrogates the multiplicity of ways security is defined and imagined and asks important questions about how knowledge(s) of security co-produces security enterprises (Vogel et al. 2017). In STS, how security gets "framed" becomes a significant vector of analysis. It investigates

the intersections of the kinds of security and technoscientific knowledge(s) and expertise that become extremely important in "what security means and the power and influence of security enterprises" (Vogel et al. 2017, p. 974). I use the STS concept of "framing" (Goffman 1974; Roth et al. 2003) as part of my analytical toolbox to address how knowledge, practice, and materialities with regards to the organization of knowledge in state disciplinary power, non-lethal intervention, and technoscientific governance co-produce legitimacy and accountability in modern state security frameworks.

Over time, STS research employed various forms of "framework analysis" (see Benford & Snow 2000; Roth et al. 2003). The approach to framing that my conceptual framework draws on is inspired by Erving Goffman (1986). His sociological approach to "framing" examines the practices of institutions and actors in daily life, "to locate, perceive, identify, and label a seemingly infinite number of concrete occurrences" (Goffman 1986, p. 21). This approach directs STS inquiry towards understanding how actors "mobilize and counter mobilize ideas and meanings" through conceived knowledge regimes and expertise (Roth et al. 2003, p. 10). Importantly, STS analysis is attuned to the ways framing is dependent of knowledge. While there are often "official" or "master" frames imbued with specific authority and power, "counter-frames" compete to displace those relations of authority and power (Roth et al. 2003 p. 12). STS analysis also acknowledges that frames are dependent of material practices and objects, like non-lethal weapons (Bijker et al. 1997). Framing non-lethal weapons and their practices of security in technoscientific governance makes visible the ways that the co-production of knowledge, practice, and materiality mobilizes ideas and meanings of (non-)lethality in multiple ways.

The STS-security interface not only problematizes the interconnections and relations between technoscience and security it also investigates more basic questions about the process of how technoscience-security relations are produced, known, and subsequently framed. Employing frame analysis, the important aspects of the relationship among security, technoscience, and non-lethality coalesce in how we imagine legitimacy and accountability in modern state security frameworks. As such, the framework analysis employed in my case study examines how technoscientific and political/ideological framing and counter-framing of security and non-lethality sustains legitimacy and

accountability in modern state security frameworks. In other words, the two ways that STS looks at how security is portrayed in relation to non-lethal weapons are technoscientific and political/ideological and the processes by which those portrayals are produced either identifies the problematic context and conditions necessitating change or it addresses what should be done (Table 3.1).

*Table 3.1*

| **Framing Processes** | Diagnostic Framing: *identifies problematic context and conditions necessitating change*<br><br>To the extent that the state embraces the tenuous monopoly on exercising violence as part of its portfolio of security mechanisms where use of force is presented and practiced as a legitimate way of resolving contentious politics, the calibration and metrics of (non-)lethality becomes an accountable way the state achieves its security means. The perceived reduction of the acceptability of lethality and injury in the deployment of non-lethal weapons legitimizes the state's expanding use of force options in the growing global police-military-network. | Analytical Framing: *addresses what should be done*<br><br>To the extent that non-lethal weapons make new forms of state interventionary and disciplinary power possible and engenders political violence as new technoscientific and security realities become acceptable the range of conditions of non-lethal weapons deployment needs to be better understood as the global police-military-network expands. |
|---|---|---|
| **Frame Types** | Technoscientific Framing:<br>1) Invokes scientific and technical determinisms | Political/Ideological Framing:<br>1) Invokes strategic objectives, ethical assessments, and moral frameworks |

The dynamics of framing and counter-framing security and non-lethality become a useful method for understanding how modern state security frameworks are imbued with legitimacy and accountability. As a hegemonic ideal, security facilitates and conceals an arrangement of governing practices all of which necessitates justification of state action particularly related to the use of force (Loader & Walker 2007). State framing of security as "public goods" and "social contracts" systems of accountability and legitimacy in security mechanisms has become deeply entrenched and defended by the state. Of considerable concern to the state is their accountability in maintaining social and spatial order and the legitimization of use of force by security mechanisms (and others) in utilizing technologies of governance, like non-lethal weapons, to maintain such order. The balance of the legitimate right to

violence is at stake for the state. How the state frames use of force, interventionary power, and (non-)lethality in security has become entrenched in debates of (inter)national (in)security threats and fears and risk assessments. This is significant because the co-production of security knowledge, expertise, and practice is overwhelming opaque, driven by classified spaces of secrecy and proprietary practices that exclude democratic participation.

***Theme #2: Knowledge, non-knowledge, secrecy, and ignorance***

Questions of how the production of security knowledge is controlled, regulated, and concealed have propelled recent research involving issues of secrecy and disclosure in STS (Barak 2011; Matsumoto 2014) and political geography (Coleman 2016; Williams 2016). As discussed above, a central concern of the STS-security interface is the production of knowledge. Thus, the practices of organizing, managing, and ordering knowledge are also of significant concern—who has access, how does access and authority work, how does this impact the security policy and practice? These questions have drawn considerable attention in recent STS research on security knowledge particularly related to the complexities of secrecy and disclosure (Masco 2010; Abeysinghe 2013). While secrecy and disclosure are not exclusive to research on security, the significant implications and consequences of secrecy in security require unique thoughtfulness. The power of secrecy in security mechanisms is difficult to overestimate as spaces of classification, closed knowledge communities ("black boxes"), and compartmentalization of knowledge create analytical obstructions.

One of primary ways the state and security mechanisms exert the supremacy of their knowledge and the maintenance of classified spaces rests to an unprecedented degree on their capabilities "to manage the public/secrete divide through the mobilization of threat" (Masco 2010, p. 433). The "secrecy/threat matrix" situates secrecy beyond simple acts of obstructing information (Masco 2010, p. 433). Secrecy enacted within classified spaces and black boxes is a generative force that co-produces knowledge and social and political order (Rappert et al. 2006). Relations of secrecy transform security policy and practice as systems of ethical regulations and moral economies with significant democracy deficits drive

particular understandings and framings of threats, violence, risk, and (in)security itself. As such, the disclosure of secretes in or by state security mechanisms provokes extreme responses.

As secrecy becomes more entrenched in technoscientific security governance, the ways in which researchers can investigate the co-production of knowledge and its consequences become more tenuous. Secrecy generates a multiplicity of logical quandaries for STS researchers to contend with as spaces of classification, black boxes, and the compartmentalization of knowledge is purposeful in obfuscating. In spaces of classification, security experts stress the importance of classification and its preservation in black boxes. The importance of classification in the production of technoscientific and security knowledge derives from its centrality in epistemological, institutional, and social, political, and spatial orders (Abeysinghe 2013). Classification schemas are often taken for granted as objective and functional in sorting knowledge and defining action. As such, classification becomes highly important in how technoscientific "facts" become embedded in, normalized and legitimated in security frameworks without public participation.

Spaces of classification and black boxes mitigate the ability for counter-framing and public decision-making and participation in security decisions to transpire. This has significant consequences for how technoscientific governance enacts state disciplinary power, (non-)lethal intervention within use of force options. I find it disconcerting that the technoscientific knowledge most pertinent to security and everyday life is largely unknown (Michael 2006). The ordering, reordering, and disordering of knowledge in spaces of classification and black boxes simultaneously empowers and disempowers people. Theorizing and making practicable structures of public participation and public decision-making in technoscientific security operations has become a major concern in STS (Thrope 2006). Preferably, security governance demands sites of co-production where the relations between technoscience, security, and knowledge are made visible;

> "Such institutional mechanisms would have to be able to deconstruct hegemonic visions and methods, choices and policy decisions and then reconstruct and renegotiate in a participatory, equitable and fair way with all parties. The aim is to open up a space [...] to a more transparent vision of the world orders and values entangled with such knowledge" (St. Clair 2006, p. 73).

Overall, the ways in which knowledge is produced and framed concerning the heterogeneous relationality between technoscience, (non-)lethality, and security are essential to understanding how non-lethal weapons are stabilized in modern state security frameworks that are imbued with legitimacy and accountability in the global police-military-network. Technoscientific and security knowledge and practice transforms the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence.

**Conclusion: Taking an STS Approach**

Overall, STS addresses my research questions in three significant ways. First, it is purposely subversive in that it offers counter-narratives to conventional understandings in and around security found in other disciplines. In asking how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence, I am questioning conventional wisdom about state-civilian relations. 'Expert' bodies continue to argue that non-lethality in security is not political but a moral/ethical concern of state-civilian relations. Furthermore, they frame the use of non-lethal weapons—security's primary operationalization of non-lethality—as a technical issue not a political issue. Yet, security governance employs science, technology, non-lethality, and security in very political ways regarding the production and implementation of knowledge(s). My project uses STS to offer a rewarding analysis of expert bodies working through highly debated and contested knowledge in relation to security and science and technology policy making and implementation. It provides a theoretical lens in which to understand how the production of knowledge becomes salient, credible and legitimate for non-lethal state interventions in contested spaces.

Second, STS's interdisciplinary nature adapts and innovates methods, tools, and frameworks to emerging political and social trends. My conceptual framework lends itself to a methodological framework that integrates a wide range of knowledge sources and texts transgressing boundaries challenging false binaries of the political and apolitical, social and asocial, and technical and non-technical. Moreover, it provides alternative visions of sociotechnical arrangements in exercises of power.

For example, there is an opportunity to focus beyond the actual science and technology of non-lethal weaponry, not only their design and engineering, but physical, psychological and other forms of study in around security that format or perform security as a result. The diverse relations of security, technoscience, and non-lethal weaponry can be identified and more thoroughly understood through the co-production of the many dynamic, complex, and contradictory knowledges and material embodiments above. Moreover, it affords an opportunity to understand how dominant knowledge regimes stabilize non-lethal weapons in the global police-military-network.

Third, STS contextualizes knowledge and materiality in terms of broader discursive and historical contexts and as such is well positioned to critique actual practices and responses. A co-productionist STS emphasizes the processes and practices whereby knowledge and context produce each other simultaneously. The sources of knowledge, practices, and materialities of non-lethal weaponry are complex and varied. Assertions, theories, designs, uses, and practices are embedded within, are produced by, and produce the competing knowledge communities maintaining non-lethality in security. Moreover, it affords an opportunity to understand how dominant knowledge regimes stabilize non-lethal weapons in the global police-military-network. As such, STS well situates future geographers asking questions about science, technology, and security, such as how the production of science and technology becomes entangled with policing spaces and bodies.

# Chapter 4: Methodology

## Introduction

Building upon my conceptual framework and primary research questions, my methodological framework is devised to conduct a comparative, intensive study that seeks to understand how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence. It addresses the heterogeneous relationalities of security, technoscience, and non-lethal weaponry through the co-production of many dynamic, complex, and contradictory knowledges (policies) and material embodiments (practices). My methodological framework acknowledges that the ways non-lethal weapons are conceived in security policy is inseparable in how they are enacted in practice in everyday life. While my methodology is centered on discourse analysis, my conceptual and methodological frameworks are designed to complement each other in addressing non-lethal weapons in security policy and materially in practice in contested spaces.

This chapter proceeds in five main sections. In the first section, I situate myself as a researcher engaging my positionality and reflexivity and its importance in my research project. Subsequently, I detail my methodological framework's background and basis for why discourse analysis is the principal methodology I employ to address my research questions. This is followed by a brief section explaining how I define discourse and employ a Foucauldian discourse analysis. The next section explicates my research design in which I highlight the ways I employ my methods, content analysis, and intertextual research models, to organize and code my data. In the following section I delve into my analysis of the co-production of security and non-lethal weapons. The concluding section of this chapter describes the research challenges I faced while conducting research in and on Bangkok whereby the stabilization of the military coup in May 2014 and its legalization under constitutional referendum in August 2017 limited my original access to sources and data.

To balance the positivist and normative leanings of conventional textual methodological approaches, I detach myself from the strategy of treating "methods as a bridge between theory and a technical instrument of analysis" and I conceptualize methods as *practice* (Aradau et al. 2015, p. 3). This

affords an opportunity to understand the complex relationality and intersectionality of security that reflects the interconnectivity of state governance and everyday life (Aradau et al. 2015). As such, methods no longer serve as simply a means to collect data per a set of techniques but exist as practices in security regimes themselves. Methods-as-practice indicate that methods are messy and never straightforwardly techniques. Knowledge production and its methods are socially and materially complex networks of practice. In STS, methods cannot be conceived of as distinct from their social contexts and networks—they are heterogeneous, interconnected, and co-constructed as discussed below (Law 2017).

**Positionality and Self-Reflexivity**

Before addressing my methodological framework, I believe it is important to mark the geographical and other knowledges promoted and produced in this research as *situated* and *partial* (Haraway 1991; Rose 1997). The interpretive and critical turn of the 1970s onward in geography exposed the ways geographers have situated themselves among a range of ontologies and epistemologies that compete, coalesce, and contradict in knowledge work. As discussed in the previous chapter, knowledge production is imbued with significant power relations. There is power in who gets to ask questions, power in who gets to answer, and power in who gets to validate the results. To address the inherent power differentials evoked in my research, I avoid universalist, disembodied, and positivist notions of objectivity in my research that render lived experiences of state policing, order, and violence invisible. Knowledge production and research are dynamic and on-going processes. I continually examine and reflect on my role as a researcher and my relationships with the objects of knowledge I 'produce' in my research. As Mansvelt and Berg (2005) argue, "All knowledge is a product of embodied knowers, located in particular places and spaces" (p. 252). In my research, I pay particular attention to how the relations of security, technoscience, and non-lethality are embodied at the site of the everyday.

As I locate my knowledge, I simultaneously locate myself as a researcher and writer by addressing my *positionality* (England 1994). By positionality, I am referring to "a researcher's explicit report 'locating' their lived experiences within a project" (Dowling 2010, p. 25). The ways in which this research project was designed, conducted, and written are tempered by my various subjectivities and my

life experiences through which these subjectivities are constituted. As a white, male, Western researcher, I recognize the various privileges I embody and how they are reproduced in my research and writing. The power, privilege, and position of my social and spatial location indicate that I need to ensure that my research on security matters avoids being patronizing, threatening, imperialist, and (re)colonizing.

Acknowledging my positionality within this research project underpins my commitment to *self-reflexivity* (England 1994; Rose 1997; Kobayashi 2003; Dowling 2010). Defined by Kim England (1994), reflexivity is "self-critical sympathetic introspection and the self-conscious analytical scrutiny of self as researcher" (p. 82). As a positioned researcher, I am entrenched within socio-political and spatial relations that influence my research. As such, in employing a reflexive approach I subject myself to the same critical analysis as I do my research. As Kobayashi (2003) argues, "Self reflexive scholars are above all concerned about the potential for recreating or reinforcing the forms of social exclusion that are at the heart of both our research and social acts" (p. 346). I believe that critical self-reflexivity is the most appropriate way to acknowledge my own social position and how my interactions, behaviors, and relations are reflected within my research. Throughout my research, I've considered the ways in which my subjectivities allow me to navigate contested spaces and spaces of security, both physically and intellectually, at safer levels than individuals whose subjectivities identify their bodies as threatening and/or marginalized.

To address my positionality, I must explain my deliberate choice to use Bangkok as my case study. First, as a white, male, Western researcher, I occupy a privileged position in Bangkok where many, if not all, of my interactions involved asymmetrical power relationships; "the Western researcher represents not only a colonial past but also a neo-colonial present" (Vanner 2015, p. 1). I mediate those relationships with critical self-scrutiny because my research involves analysis of policies and practices that have intense social and political impacts. Also, I must acknowledge that I have spent significant time in Thailand before completing my initial field work in December 2015 and January 2016. As a research assistant at Kent State University, I completed extensive field work in Southeast Asia, particularly Cambodia, funded by the National Science Foundation (grant #1262736). Due to the length of travel I

needed to complete visa runs which I fulfilled in Thailand. Since July 2013, I have traveled to Thailand two times for extended periods (more than four weeks). Not only have I spent a significant amount of time in Bangkok, but I also traveled extensively across Thailand. Throughout my travels, I had the opportunity to build a strong network in both Thai and expatriate communities in Bangkok and beyond.

In July and August, 2013, while I visited Bangkok there was growing political instability that led to a noticeable increase in military, security, and police forces deployment across the city. The increasing militarization of public space was indicative of the forthcoming political crises that led millions of Thai people into the streets in mass demonstrations. In December, 2013, massive anti-government protests were ongoing and continually disrupting everyday life in the city, which disrupted a planned visa-run to Bangkok. In response to a massive call to action to occupy Bangkok and increasing safety concerns (an estimated 3.5 million people marched through Bangkok on Dec. 22, 2013), that trip was cancelled. Eventually, these massive demonstrations and space-taking occupations led to a military coup on May 22, 2014.

In the fall of 2015, my twin brother moved to Thailand, which further strengthened my ties to that place. Prompted by a determination of what my dissertation research would entail, I returned to Thailand in December 2015 and January 2016 whereby I conducted a research feasibility assessment and initial field work. While I was conducting this preliminary research, Bangkok was immersed in ongoing discussions of democratic reform because of the 2014 coup and mounting contestation over public space. Since the time of my preliminary fieldwork, the political and social climate in Bangkok significantly changed as Thai citizens' liberties have been eroded, political parties have ceased to function, mass demonstration has become illegal, and censorship of the media continues to rise which significantly impacted my research agenda as discussed in the final section of this chapter. Overall, by engaging and understanding my positionality through critical self-reflexivity, I balance my intimate connections in and to Thailand with intellectual rigor and integrity. My aim is to understand the complexities of the geographies of non-lethal weapons and using a place whereby I have strong connections as a case study will assist in my overall analysis rather than hinder it.

Steeped in critical feminist training, I acknowledge that this research project is part of a concerted political project meant to transform society by challenging and disrupting the hegemonic power relations of security and the state. For me, positionality and reflexivity have little meaning if not linked to greater political and personal agendas meant to transform our world; "How we choose to change the world is a very personal matter; but the results are not" (Kobayashi 2003, p. 348). The depths of my positionality and reflexivity are entangled with logical, ethical, and moral questions to which I do not claim to have the full answers. What I can claim is that the unremitting arrangements of power and exercises of violence continue to shape everyday life, everywhere. Reimagining future geographies of security and non-lethal weapons needs to cultivate commitments to critical self-reflexivity. As Griffin (1993) eloquently claims, "It is perhaps a choice each of us makes over and over, even many times throughout one day, whether to use knowledge as power or intimacy" (p. 295). In my work, I strive to emphasize intimacy to connect everyday experiences to larger systems of privilege, knowledge, and power that produce uneven social and spatial relations

**Methodological Framework Overview**

To address my two research questions, my overall methodological framework is dependent upon discourse analysis. Over the past few decades, the 'discursive turn' in human geography has transformed the ways texts and discourses are analyzed, providing new methodological approaches through which to understand the "situatedness of knowledge, the contextuality of discourses and the active role which spatial images play" (Häkli 1998, p. 333). Discourse analysis bolsters my conceptual framework in that it provides ways to examine how security knowledge is produced, practiced, and normalized through relations of power. Specifically, I use discourse analysis to unpack the various geographies of non-lethal weapons in security policy and practice and to better understand how the (non-)lethality distinction operates in state interventions and contested spaces. I adopt discourse analysis to highlight the significance of the construction of meanings and relations of security, technoscience, and (non-)lethality, focusing on the links among discourse, context, and its practice.

Drawing on Waitt (2005), there are three main objectives of using discourse analysis as my primary methodology:

1) To investigate the consequences of security discourse, related to actions, perceptions, or attitudes of non-lethal weapons rather than merely the analysis of statements and or texts.
2) To identify and critique the frameworks within which assemblages of discourses are co-produced and disseminated whereby people and institutions construct meaning(s) of security, technoscience, and (non)lethality.
3) To expose the maintenance of security mechanisms that preserve structures and systems about individuals and spaces in security worlds and realities "as unchangeable, normal, or common sense" (p. 165).

Several qualitative methods readers, including human geography ones, provide varying approaches to discourse analysis (see Hay 2010; Hennink et al. 2010). It becomes apparent quickly that harnessing the complexities, multiplicities, and ambiguities of text and discourse is demanding work. As Müller (2011) points out, doing discourse analysis is often "accompanied by a rather vague specification of the methodology that underpins this analysis" (p. 1). There is no commonly accepted methodological standard in conducting discourse analysis which at times makes it difficult to conduct explicit and systematic analysis (van Dijk 1990). Geographers have made calls for theoretical engagements to find a common definition, conceptual underpinning, or a common approach but they have largely gone unheeded (see Dalby 1991; Ò Tuathail 1992; Ò Tuathail 2002). Many discourse analysts argue that a standard formula for discourse analysis would mitigate its effectiveness as a methodology. The fact that there is no standard "how-to-do-a-discourse-analysis" process is one of the primary reasons behind my use of discourse analysis and supports my STS conceptual framework (Müller 2011, p. 3).

The analytical power of discourse analysis draws on my abilities to be self-reflexive in the ways I apply discourse analysis in my research and fosters the importance of being a theoretical and methodological bricoleur resisting normative and positivist trappings and dominant narratives (Torfing 1999; Howarth 2004; Müller 2011; Aradau et al. 2015). This is significant for critical scholars of security who problematize knowledge regimes that sustain normative ideologies of (in)security, risks, and threats. Discourse analysis affords an opportunity for me to understand the complex sociotechnical assemblages of social and spatial ordering embedded in technoscientific security governance. It involves complex

balancing acts between the goals and scopes of the analysis, research focus, and the types of data to be collected (Wetherell 2001). To stabilize this balancing act, I systemize my approach to discourse analysis following Müller's (2011) three core dimensions of analysis of discourse in critical geopolitics—context of analysis, analytic form of analysis, the political stance of analysis—and translate them to engage the scope of my own research project.

The co-production of security is always linked to particular contexts as meanings shift between social, political, and spatial arrangements. As such, the first core dimension is the *context of analysis*, "It is the discourse analyst's task to establish the context for the reader to participate in the discursive meaning construction" (Müller 2011, p. 4). As I started this project I generally knew what texts would be relevant to my research questions, but as I proceeded I realized that the multiple and overlapping contexts would overwhelm the data collection and analysis process. I had to specifically define how much and what kind of context needed to be included (Wetherell 2001). To define the context(s) of this project, I employed content analysis in three different phases detailed in my Research Design section.

The second core dimension is the *analytic form of analysis* (Müller 2011). Various analytic forms of analysis exist within qualitative methods from interpretive or explanatory forms (see Angermüller 2001) to more critical post-structuralist forms (see Strüver 2007). Drawing upon the critical nature of my conceptual framework, the analysis of discourse in this project focuses on the practices of co-production of the meaning and social and spatial effects of technoscience, security, and non-lethality. My co-productionist approach permits a comparative, intensive exploration into how technoscience, security, and non-lethality are employed to frame discourses and practices. This approach makes clear why I use a Foucauldian understanding of discourse as I am most "concerned about the ways in which meanings get legitimised, normalised and finally accepted as reality and social rules", as explained in the next section (Strüver 2007, p. 688). As such, I employ intertextual research models (Hansen 2006) to understand the mutual co-production of discourses related to non-lethal weapons within a growing technoscientific governmentality as discussed below.

Müller's (2011) final dimension of analysis of discourse revolves around *the political stance of analysis;* "A critical, political take on discourse analysis centrally asks the questions of how phenomena variously termed dominance, hegemony, unequal power relationships or social inequality come about and how the constitution of the social world might be imagined alternatively" (p. 7). Adopting a critical approach to discourse analysis acknowledges my active role in this research and how through critical understanding I challenge dominant security narratives of non-lethal weapons. A critical analysis of how technoscientific security discourses embody forms of power/knowledge centers this methodology. Discourse analysis is employed to link these discourses to ideologies, power relationships, and knowledge production.

Overall, drawing upon Müller's (2011) three core dimensions of analysis of discourse, my methodological framework's main objective is the analysis of how and with what consequences various institutions and agents involved in security policy and practice use discourse to frame non-lethal weapons, how discourses co-produce knowledge and meaning about non-lethal weapons and their socio-spatial effects, and how non-lethal weapon security discourses are constituted as active forces in contested spaces. In other words, I am concerned with how discourses operate strategically to accomplish certain spatial, social, and political ends of state exercises of interventionary power in contested spaces.

**What is Discourse? Conducting Foucauldian Discourse Analysis**

Due to discourse analysis's no one-size-fits-all nature, it is important that I am transparent in the ways I employ discourse analysis as a methodology. In this section, I identify the way in which I conceptualize discourse and how the ways security discourse is co-produced and becomes entrenched in socio-technical, political, and security worlds through policy and practice. My methodological framework acknowledges that the ways non-lethal weapons are conceived in security policy is inseparable in how they are enacted in practice in everyday life. I work beyond the discourses themselves and tease out the relations between discourse and practice to understand how discourses work materially and become embodied (Sharp 2003). Discourses move beyond discrete silos of self-referential meaning, encompassing traces of complex practices embodied in everyday life (Angermüller 2001).

"Discourse is a notorious term within human geography and other social sciences because of the messy multiplicity of meanings associated with it" (Dittmer 2010, p. 275). To clarify the messiness, I rely upon Foucault's theorizations of discourse. Rather than employing an orthodox linguistic meaning of the word "discourse" as written or spoken communication, Foucault constructed a theoretical framework in which to understand discourse. This framework affords an opportunity to explore "the rules about the production of knowledge through language (meanings) and influence over what we do (practice)" (Waitt 2005, p. 184). As such, a Foucauldian understanding of discourse fits best within my conceptual and methodological frameworks that critically engages the production of knowledge. Foucault employs various definitions of discourse throughout his work, but Waitt (2010) identifies two overlain explanations of discourse that underpin my analysis:

1) All meaningful statements or texts have effects on the world;
2) Statements that appear to have a common theme provide a unified effect on meaning construction through discursive structures (regimes of truth) (p. 218).

Foucault's definitional framework centers on the production and circulation of knowledge and its ability to create "regimes of truth" (Foucault 1974b, 1979b). Over time, these regimes of truth produced through discourse shape classifications and norms that define, order, and discipline subjects, concepts, and objects. As discussed in the previous chapter, Foucault emphasizes the operation of technologies of power and their relations to the production of knowledge. Like Foucault, I am interested in how knowledge production regimes produce meanings and realities that order, manage, and discipline attitudes and practices of security and (non-)lethality. Moreover, how these meanings and realities become legitimized and normalized become a significant vector of analysis. I conceive of discourse(s) as a "mediating lens that brings the world into focus by enabling people to differentiate the validity of statements about the world(s)" (Waitt 2010, p. 215). Therefore, I focus on how particular knowledges related to non-lethal weaponry embedded in technoscientific governance and the global police-military-network are sustained as 'security realities'.

To assess these connections, I work through the "discursive structures" that co-produce the mutual relationship between power and knowledge of security, technoscience, and non-lethal weaponry in

state interventions of contested spaces (Foucault 1949b). Generally, Foucault employs the concept of discursive structures to refer to the ways knowledge(s) and meaning(s) are ordered and disciplined, typically informing hegemonic understandings of the world. Discursive structures 'fix' concepts, ideas, and meanings of the world within specific contexts and spaces (Waitt 2010). In other words, they "establish limits to, or operate as constraints on, the possible ways of being and becoming in the world by establishing normative meanings, attitudes, and practices" (Waitt 2010, p. 233). Foucault recognized the inseparability of discourses, institutions, and social practices and their role in power/knowledge. Simply put, Foucault is interested in the 'effects of truth' within different modalities of power and knowledge (Foucualt 1974b). Consequently, discursive structures allow me to reconcile the fact that discourses of security, technoscience, and (non-)lethality are vast, multiple, competing, and often contradictory while the 'security realities' they produce are actually quite stable.

My project recognizes the interaction of security, technoscientific, and (non-)lethality discourses as embedded in greater regimes of knowledge production whereby meaning is produced, power is expressed and exercised and the world is rendered recognizable through a securitized/militarized lens. Using Foucault's theorization of discourse allows me to explain how security policy and practice become accepted as social, political, and spatial realities. More importantly, I recognize these "realities" as contextually variable and co-produced, "being the outcome of uneven social relationships, technology, and power" (Waitt 2010, p. 215). Therefore, discourse analysis affords an opportunity to understand how security knowledge and practice operates within conceived common sense and hegemonic ways, often rendering other sets of ideas and knowledge regimes invisible.

**Research Design**

This section and its subsections explicate my research design and how I do discourse analysis. I draw significantly on the work of Gillian Rose (1996, 2012) and Gordon Waitt (2005, 2010) in identifying stages and employing strategies for my discourse analysis. As previously discussed, conducting discourse analysis is not necessarily intuitive. In order to analyze how specific sets of security discourses related to non-lethal weapons operate as hegemonic models in state security mechanisms,

interventions, and contested spaces, it is crucial to identify my stages for doing discourse analysis. Modifying Rose's (2001) seven stages of discourse analysis, I conduct my discourse analysis in three broad stages.

In the first stage, I identify source materials and texts that define my context of analysis using a content analysis approach to generate broad coding themes. This is followed by detailing my analytic form of analysis where I employ intertextual research models to code, more thoroughly, my source materials and texts first to organize and then to begin initial interpretation. I discuss how intertextual research models are used in understanding the co-production of security with specific attention paid to the robust linkages among scientific, technological, and security discourses. In the final stage, I conduct my analysis of source materials and texts investigating their political, social, and spatial context and 'effects of truth' to show how co-produced and competing discourses constitute relations and practices of non-lethal weapons.

***Content analysis: choosing source materials and texts***

This section details how I identify my contexts of analysis and distinguish the scope of the specific assemblages of source materials and texts related to non-lethal weapons at various levels and units of analysis. Choosing source materials and texts for discourse analysis was accomplished using content analysis. I employ content analysis in this stage because of its focus on meticulous, methodical investigation, and interpretation of specific assemblages of material to recognize concepts, patterns, and meanings that reflect the co-production of technoscientific security governance and everyday life (Berg 2007; Berg & Latin 2008; Leedy & Ormrod 2005). Content analysis allows researchers to examine significant volumes of data in systematic ways, serving as a foundation in which to pursue greater analysis using other complimentary methods (Krippendorff 2003). In this project content analysis is useful in determining source materials and texts and examining overarching trends, themes, and patterns informing my coding process.

In this initial stage, content analysis was conducted in three phases. My first phase of context defining identified source materials and texts of immediate relevance to non-lethal weaponry, for

example, surveying policy documents that define non-lethal weapons. The more general or distant aspects of socio-political and spatial contexts surrounding non-lethal weapons and security were framed during my second phase of context defining, for example, collating media material related to non-lethal weapon deployment in contested spaces. The final phase of my context defining links my immediate and distant contexts to form a more concrete overarching context. It aimed to identify source materials and texts related to my case study in Bangkok to focus on comprehensive socio-political and spatial meanings and relations of security, technoscience, and (non-)lethality.

Overall, content analysis involved the collection, review, and analysis of more than 100 textual sources, including government documents, reports, speeches, print media, books, and videos (etc.) (Appendix 1). Two techniques of content analysis were drawn on to reveal coding themes and frames; manifest and latent content analysis. Manifest messages, elements that are countable and quantifiable, and latent messages, meanings and symbolisms interpreted, were combined as much as possible to create the most reliable criteria of selection related to source materials and texts (Holsti 1968; Babbie 2007). While some scholars perceive a tension with using both manifest and latent content analysis (Berg 2007), I find blending the techniques useful in reducing data sets and emphasizing each other's strengths. For example, finding the rate with which a certain term or theme (i.e., "non-lethal") appears in a source material or text could suggest its significance or lack thereof. Manifest and latent content analysis and subsequent coding are paralleled by 'descriptive' and 'analytic' codes respectively (Cope 2010; Rose 2012).

This approach informed my criteria of selection of source material and text as descriptive codes and analytic codes emerged. Descriptive codes are typically thought of as categorizing labels as they answer "who, what, where, when and how" types of questions (Cope 2010, p. 283). They are those themes or terms that are most immediate to research question(s). Based on preliminary research from initial literature review *a priori* descriptive codes were identified: 1) Government security policy; 2) Military, security, and police forces policy; and 3) Science and technology policy. Therefore, originally,

content analysis was conducted in relation to three assemblages of materials of immediate relevancy to non-lethal weaponry:

1) Government policy, legislation, and legal documents and reports;
2) Military, security, and police publications and policy documents; and
3) Scientific and technological reports and documents.

These source materials and texts served as my *starting points*: sources almost certainly to be particularly productive, relevant, and interesting (Rose 2012). Indeed, many of these key source materials and texts provided relevant data such as the United States Department of Defense (DOD) Directive 3000.3E which updated the authority, policy, and assigned responsibilities for the management of the DOD non-lethal weapons program and is cited as constituting the primary definition of non-lethal weapons across multiple source materials and texts. Once these more obvious starting points were preliminarily examined, it was clear I needed to widen the range of source materials and texts to capture a more comprehensive understanding of non-lethal weapons in security policy and practice. New source materials and texts needed to be included if I was going to answer my research questions comprehensively.

Drawing upon the starting points above, three emergent analytic codes that reflected important themes in which I was interested were identified; 1) media response(s); 2) wider political policy; and 3) alternative political/social policy. Analytic codes are often thought of as widening and deepening the process of discursive analysis leading to "new and unexpected connections, which can sometimes generate the most important insights (Cope 2010, p. 283). Therefore, in the second phase of my content analysis, the criteria of selection for source materials and texts were broadened to include distant aspects of socio-political and spatial contexts surrounding non-lethal weapons:

1) Media and media organizations reports;
2) Non-governmental organizations publications and reports;
3) Non-state security agencies/corporations;
4) Academic analyses and public discourses;
5) Think tanks publications and reports; and
6) Research institutions publications and reports

These assemblages of source materials and texts started to reflect a shift as initial codes derived from my research questions, literature review, and staring point materials advanced through more interpretive codes that recognize complex patterns, relationships, and meanings. As such, linkages between my immediate and distant contexts in source materials and texts were made clear. A clear coding structure started to emerge as I continued to accumulate source materials and texts. As such, I used this coding structure to organize and identify source materials and texts based on their commonalities, relationships, and disjunctures into three overarching themes that would be engaged in my subsequent analysis; 1) official discourses; 2) wider political discourses; and 3) alternative political discourses.

One of the major difficulties with discourse analysis is knowing where and when to stop the data collection process. At the end of this phase, I noted that the source materials and texts I collected seemed to "have enough material to persuasively explore its intriguing aspects" (Rose 2012, p. 199). However, before I began analyzing, I needed to complete one more phase of data collection and collate source materials and texts directly related to my case study. Thus, the third and final phase of content analysis identified and assembled source materials and texts specifically related to my case study in Bangkok:

1) Thai government policy, legislation, and legal documents and reports;
2) Royal Thai Armed Forces (RTA) and Royal Thai Police (RTP) publications and policy documents;
3) Thai media and Thai media organizations publications and reports; and
4) Thai non-governmental organizations publications and reports.

This final phase of context defining allowed me to form a more concrete and dense overarching context that included case specific source materials and texts. The three phases of content analysis formed the foundation upon which I could begin to think critically about the social and spatial production of source materials and texts (Waitt 2010; Rose 2012). These social and spatial dimensions "are a good starting point for critical interpretation because discourses operate as a process, restricting not only what can be said about the world but also who can speak with authority" (Wood and Kroger 2000; Waitt 2010, p. 225). Identifying my overarching descriptive codes and eventual analytic themes, official discourses, wider political discourses, and alternative political discourses, acknowledges that my context of analysis

is grounded in the struggle of and for power in the production of knowledge concerning non-lethal weapons.

Content analysis assists in identifying and constructing my context of analysis that highlights comprehensive socio-political and spatial meanings and relations of security, technoscience, and (non-)lethality within my source materials and texts. The comprehensive catalogue of descriptive labels and analytic themes drawn from a wide range of sources indicate the *intertextuality* of my research project. Intertextuality describes the supposition that meanings are co-produced as a series of relationships, interconnections, and linkages between source materials and texts rather than residing in the sources themselves (Waitt 2010). To analyze the complex co-produced meanings and relations of (non-)lethality, security, and technoscience I subsequently employ "intertextual research models" (Hansen 2006).

***Intertextual research models***

In the following section, I detail how I employ intertextual research models to continue the process of organizing and coding the various data as well as start the process of analyzing source materials and texts. Expanding upon the research of Lene Hansen (2006), this project examines security discourse in relation to non-lethal weapons from a range of diverse textual sources using intertextual research models. My framing of Hansen's (2006) intertextual research models (see Table 4.1) is conceived to align with the greater theoretical and methodological framework of this research project focusing on knowledge co-production. While the models are distinct, they are not mutually exclusive. Each model identifies method, analytical foci, objects of analysis, frame type, and goals of analysis and are by no means an exhaustive list of the discourses and sources that can be analyzed. This method affords an opportunity to understand the complex heterogeneous relationality and intersectionality of security policy that reflects the interconnectivity of state governance and everyday life in relation to non-lethal weapons (Amicelle et al. 2015). These research models serve to organize the depth and breadth of knowledge related to security and non-lethal weapons discourse and allow me to focus analytically on my research questions.

The mutual co-production of source materials and texts exposes that seemingly distinct texts are

located within a shared textual space, "all texts make references, explicitly or implicitly, to previous ones, and in doing so they both establish their own reading and become mediations on the meaning status of others" (Hansen 2006, p. 55). The meanings of texts are then bound to broader co-produced representations and interpretations which have significant political, social, and spatial implications. This practice was conceptualized by Julia Kristeva (1980) and is known as *intertextuality*. Originally, employed by poststructuralist theorists to upset conceptions of fixed meanings and interpretations, intertextuality constructs a network of textual relations; "any text is the absorption and transformation of another" (Kristeva 1980, p. 66; Allen 2000). It focuses attention to the ways texts are co-produced, both channeling and restricting the information articulated. Intertextuality affords an opportunity to analytically, politically, and empirically engage source materials and texts—speeches, policy briefs, policy legislation, reports—as inherently connected to broader discursive practices (Hansen 2006). As such, it is a methodological approach that allows for an in-depth and comparative discourse analysis.

There are two forms of intertextuality: explicit and implicit. The explicit form of intertextuality is employed to draw upon a textual past, particularly one of authority, and engages textual linkages by using quotes or references (Hansen 2006). Citing the classics or seminal texts in the field is the most obvious way explicit intertextuality emerges. It confers a sense of legitimacy for its own explanation and "reconstructs and reproduces the classical status of older ones" (Hansen 2006, p. 57). The implicit form of intertextuality is subtler and is employed to articulate how concepts, themes, and meanings are produced and involves identifying linkages, such as those in secondary sources (Hansen 2006). Regardless of the form of intertextuality, source materials and texts interact at the level of meaning as even direct quotes are (re)read in a different context of analysis within each different text. As Hansen (2006) states, "This implies that the intertextual focus is not only on which texts are being quoted or which links are being made by other texts, but also how texts are read and interpreted" (p. 57). This holds significant bearing in my project as I am interested in how security realities, truth regimes, and knowledge are constructed within source materials and text and reproduced from one text to another located in particular co-produced security discourses.

I employ three intertextual research models drawing on key components of my conceptual and methodological frameworks. As described above, content analysis was used to identify source materials and texts that could be coded, organized, and initially analyzed for all three models. The frame types derived from my framework analysis in Chapter 3 fall into two categories: master frames, imbued with specific authority, power, and expertise, and counter frames that compete to displace the master frames. Both master frames and counter frames could exemplify either a technoscientific or political/ideological framing which it draws on for legitimacy and authority (see Table 3.1). My intertextual research models were designed to accommodate new materials, texts, and analysis throughout my process to provide a comprehensive coding, organizing, and initial analyzing method.

Model 1's analytical focus is official discourses related to non-lethal weapons. Official discourses are identified here as discourses through which state power and action are legitimized through non-lethal weapons policy or practice. Official discourses emanating from government, military, or international institutions of governance are powerful in shaping not only the policies of security but their actual enactment. The development, procurement, and deployment of non-lethal weaponry are almost exclusively situated within official discourse. So, while this model may seem conservative in relation to the overall critical nature of this project, significant analysis is conducted here. Official source materials and texts are the objects of analysis in this model, such as policy statements or legislation and law about non-lethal weaponry, which are direct discourses or texts by official institutions and agents. Model 1 has two goals of analysis; 1) the emergence and stabilization of master frames; and 2) the responses of official discourses to critical discourses.

Model 2's analytical focus examines wider political discourses deriving from agents and institutions whose ability to influence the formation of non-lethal weapons policy and practice is less but nonetheless significant. Political opposition, the media, corporate institutions, think tanks, research institutes, and non-state security organizations are integral in shaping the fervor or suppression of security policy and practice. Engaging political opposition discourse facilitates analysis of the discursive and political hegemony of the official discourse of Model 1 and provides insight into how policy and practice

could change during transitions of political power. For example, the military coup in Thailand brought swift changes to security policy and practice from the previous civilian-led government. The media has an integral role in shaping and framing policy and practice and engaging with the public more directly, therefore deserves considerable discursive analysis especially in relation to visuals and representations of state interventions in contested spaces. Corporate institutions and non-state security organizations, like weapons manufacturers, have significant influence and authority within the policy decision making process and therefore cannot be overlooked in analysis. Model 2 has two goals of analysis; 1) maintain or challenge the hegemony of master frames; and 2) the likely/anticipated transformation of master frames.

Model 3's analytical focus engages alternative political discourses related to non-lethal weapons. The auxiliary texts are produced by a variety of agents proliferating into the realm of public debate. Institutions and agents were selected as part of defining the context discussed above. Model 3 engages the importance of widely offered representations of agents and discourses that are engaged in on-going debates about security and non-lethal weaponry. This model allows for the inclusion of more marginal agents and institutions in the analysis. To limit the scope of this model, I collected and coded alternative political discourse viewed in conjunction with grassroots movements or bottom-up approaches. Model 3 engages security and non-lethal weapons policy and practice directly related to practice and lived experiences with non-lethal weapons deployment in contested spaces. Model 3 has two goals of analysis; 1) legitimize or contest the goals of Models 1 and 2; and 2) expand academic and public debate.

*Table 4.1*

| | **Model 1** | **Model 2** | **Model 3** |
|---|---|---|---|
| **Coding Method** | Content Analysis | Content Analysis | Content Analysis |
| **Analytical Focus** | Official discourses<br>1) Heads of states<br>2) Governments<br>3) Senior civil servants<br>4) High ranked military<br>5) Heads of international institutions | Wider political discourses<br>1) Political opposition<br>2) The media<br>3) Corporate institutions<br>4) Non-state security organizations<br>5) Think Tanks<br>6) Research Institutes | Alternative political discourses<br>1) Social movements<br>2) Academia<br>3) NGOs<br>4) Public discourses |

| **Objects of Analysis** | Official texts<br>1) Direct texts<br>a. Policy statements<br>b. Legislation and law<br>c. Reports and documents<br>2) Supportive and secondary texts<br>3) Critical texts | Wider texts<br>1) Debates, speeches, statements<br>2) Reports<br>3) Media publications<br>4) Corporate reports, documents and campaigns | Auxiliary texts<br>1) Academic analyses<br>2) Reports<br>3) Campaign materials |
|---|---|---|---|
| **Frame Type** | Master Frame(s)<br>1) Technoscientific<br>2) Political/Ideological | Master Frame(s) and/or Counter Frame(s)<br>1) Technoscientific<br>2) Political/Ideological | Counter Frame(s)<br>1) Technoscientific<br>2) Political/Ideological |
| **Goals of Analysis** | 1) The emergence and stabilization of master frame(s)<br>2) The responses of official discourses to critical discourses/counter frame(s) | 1) Maintain or challenge the hegemony of master frame(s)<br>2) the likely/anticipated transformation of master frame(s) | 1) Legitimize and/or contest goals of Models 1 and 2.<br>2) Expand academic and public debate |

Shifts in analysis from Model 1 to Model 2 to Model 3 indicate the shifting level of analysis as well as the increasing complexity of that analysis. The shifts also reflect the level of influence in the formation and practice of security and non-lethal weapons policy and practice. Examples of how I employ these models are below:

*Primary Research Questions:* How do non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence? How are non-lethal weapons stabilized within global police-military-network policy frameworks that shape state interventionary power in securing contested spaces?

*Model 1 Hypothesis:* Through the production and representation of non-lethal weapons, official policy discourses institutionalize, and normalize specific understandings of security that legitimize the deployment of non-lethal weapons in the use of force against civilians.

*Model 1 Analytical Focus (Data):* Non-lethal Weapons Executive Seminar (NOLES) principal findings, Non-lethal Weapons Capabilities: Report on an Independent Task Force (2004), North Atlantic Treaty Organization (NATO) studies on non-lethal weapons (*SAS-035, SAS-040, SAS-060, SAS-078 and HFM-155*), Joint Non-Lethal Weapons Directorate (JNLWD) Reference Book 2011/2012, Non-Lethal Weapons: Technologies & Global Market 2014-2020, and Thailand's Internal Security Act.

*Model 2 Hypothesis:* The legitimacy of non-lethal weapons in contested spaces produces wider programs of state political action regarding the use of force against civilians, and these actions weaken responsible deliberation and cooperation surrounding policies and practices of security.

*Model 2 Analytical Focus (Data):* the *Bangkok Post, The Nation, Thai Rath* (ไทยรัฐ), Daily News, opposition party statements (led by former Prime Minister Abhisit Vejjajiva), Foreign Correspondents Club of Thailand (FCCT), and The Media Agency Association of Thailand (MAAT).

*Model 3 Hypothesis:* Non-lethal weapons provide a means by which increasingly interventionary security regimes can exercise violence to quell political and social dissent under the pretenses of "ethical" and "humane" interventions in contested spaces.

*Model 3 Analytical Focus (Data):* Chachavalpongpun (2014; 2016), McCargo (2002), Haanstad (2012; 2013), Poothakool & Glendinning (2013), Omega Research Foundation's (OMEGA) "The Human Rights Impact of Less Lethal Weapons and other Law Enforcement Equipment," Small Arms Survey's "Transfers and Transparency 2016," Human Rights Watch's, "Human Rights Aspects of Thailand's Internal Security Act."

Intertextual research models provide a focused way in which to engage discourse analysis of security policy and practice of non-lethal weapons and state interventions in contested spaces. They afford an opportunity to theorize the ways source materials and texts construct power/knowledge through their capacity to legitimize authority and expertise about non-lethal weapons. I can identify discourses that construct specific knowledge regimes about security and non-lethal weapons whereby *knowing* accommodates such authority and expertise. While engaging security, knowledge, authority, and

expertise often become intertwined and inflated such that discourses are deciphered through conceived power differentials. As discussed in Chapter 3, authority and expertise are not inherent but assembled through modalities of power and the (re)production of discourses and the identities constructed within them (Foucault 1977). Discourse and 'knowing' therefore become an important analytical optic for analysis (Hansen 2006). As such, security and non-lethal weapons discourse is knowledge that is constructed through different modalities of power that sanction and challenge the (il)legitimate exercise of state interventionary power in contested spaces. In other words, ways of knowing security and (non-)lethality simultaneously produce ways of practicing security and (non-)lethality.

**Analysis: Co-Producing Security Discourse and Non-Lethal Weapons**

The co-production of non-lethal weapons and security deserves considerable discursive analysis. In understanding security as a discursive practice, I contend that security both articulates philosophies and grounds materiality such that the two cannot be disconnected, especially regarding non-lethal weaponry. The constitution of security regimes not only exacerbates interstate relations, extending the reach and grasp of the globalized police-military-network, but also shifts our understanding of security at all scales changing the dynamics of state interventions in contested spaces. On the surface, as a discursive practice, security mediates the complexities of varied stakeholders, institutionalizing and normalizing their understandings of policy options and practices that are then enacted.

To delve deeper, the complexities of shaping and realizing security mobilize particular social-political subjectivities (Shapiro 1981, 1988, 1990). This is illustrated in how spaces and bodies are defined as threats, volatile, and/or insecure, and subsequently acted upon. In contested spaces, to "secure" reflects interventionary exercises and dislocation, often violently. As such, contested spaces become incubators for state security strategy and practice whereby the state can test the thresholds of accountability, acceptability, and legitimacy of various techniques and rationalities of order. Thus, security is constituted, not only in broadest sense as the 'security-ness' of space and bodies, but also literally as what political agents do engendering deliberation and debate about the (non-)lethality distinction (Amicelle et al. 2015). This exposes the relationality of security: discourses, ideations, power

relationships, regimes of knowledge, techniques of governance, technologies, political subjectivities, and their linkages (Amicelle et al. 2015). To conceptualize security as discursive and relational implies that security knowledge and practice articulates meanings, framings, and lenses of interpretation that contrast with the rather objective and normative ways in which security is conceived and implemented by policymakers and security planners (Hansen 2006). It also implies a theoretical and empirical analysis that examines how security is articulated and achieved by conflicting political institutions, security, and corporate organizations, the media, citizenry, and other agents (Der Derian 1992; Shapiro 1988, 1997; Hansen and Waever 2002; Hansen 2006). This illustrates two key implications of co-producing security and its significance in understanding the geographies of non-lethal weapons and why discourse analysis provides the best methodology to understand it:

1) The effects of truth are a power-laden process through which particular knowledge is deployed by security institutions/regimes as a mechanism of social and spatial control.
2) While discourses are always inherently unstable, multiple, and contradictory, security discursive structures operate to give fixity in contested space, bringing a militarized/securitized common-sense order to the world.

Therefore, discourse analysis affords an opportunity to problematize how (in)security is treated as a given; "For something to become a security concern, institutional, political, technological, and various other work is performed that makes it a matter of insecurity" (Aradau et al. 2015, p. 3). The co-produced modes of knowledge about security, technoscience, and (non-)lethality continually recalibrate security governance and its political, social, and spatial effects. As such, identifying, examining, and critiquing the discourses surrounding security and non-lethal weapons assists in understanding how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence. Also, it challenges how non-lethal weapons become stabilized within global police-military-network policy frameworks.

A critical analysis of my data began with interrogating political, social, and spatial circumstances within the discourses that invoke specific security realities (Waitt 2010). Foucault recognized that discourses are grounded within political and social networks whereby "groups are empowered and disempowered relative to one another. He saw discourse as subtle forms of social control and power"

(Waitt 2010, p. 225). The production of discourse therefore is a power-laden process. I can investigate the consequences of security discourse, related to actions, perceptions, or attitudes of non-lethal weapons rather than merely the analysis of statements and or texts. First, I consider the analytical focus of my source materials and text by examining the political, social, and spatial circumstances of authorship and audience. The ways in which discourses are produced is significantly dependent on the intended audience. Authors use specific discourses to stimulate demands, perceptions, attitudes, and actions of their intended audience. How non-lethal weapons are framed in security discourse assists shaping how individuals make sense of them which has significant consequences as particular regimes of truths are communicated in lieu of others. It is not incidental that official discourses dominate discussions, debates, and knowledge making of non-lethal weapons.

Of course, this is not to imply that audiences serve as inactive recipients of meanings of discourses. In fact, audiences are an integral part of the discursive knowledge-making process as "audiences can be conceptualized as co-authors of a text" (Waitt 2010, p. 228). Framings, meanings, and interpretations of discourses are always multiple and multi-directional. Understanding discourses is politically, socially, and spatially contingent as competing meanings, power relationships, and ideologies are linked to the lived experiences of authorship and audience members. Asking questions of the authorship and audience of source materials and texts becomes an important way in understanding how power is diffused in the production of knowledge in the context of establishing, maintaining, and/or challenging security realities forwarded in discourse (see Table 4.2). More specifically, I examine how expertise, authority, and power/knowledge embedded in security discourses operate strategically to accomplish certain spatial, social, and political ends of state exercises of interventionary power in contested spaces.

*Table 4.2*

| **Political, Social, and Spatial Circumstances of Authorship and Audience** | **Questions Asked (selected)** | **Why is this answer important in the context of establishing, maintaining and/or challenging security realities?** |
|---|---|---|
| | Does the text address political | Provides insight into how and with |

| | | |
|---|---|---|
| **Political** | identities and power relationships of its author(s) and intended audience(s)?<br>Who has rights to the text?<br>Why was the text produced?<br>Who is/are the intended audience(s)?<br>What are the political norms of viewing selected texts? | what consequences various institutions and agents involved in security policy and practice use discourse to frame non-lethal weapons. |
| **Social** | Who authored the text?<br>Who commissioned the text?<br>How is the text produced?<br>How is the text distributed?<br>How actively does an audience(s) engage the text?<br>What are the social norms of viewing selected texts? | Provides insight into how discourses co-produce knowledge and meaning about non-lethal weapons and their social effects. |
| **Spatial** | Where was the text made?<br>Where is/are the audience(s) of text?<br>What are the geographic contexts of the text? | Provides insight into how non-lethal weapon security discourses are constituted as active forces in contested spaces. |

The next process in my Foucauldian discourse analysis investigates the 'effects of truth' of my discourses to identify and critique the frameworks within which assemblages of discourses are co-produced and disseminated whereby people and institutions construct meaning(s) of security, technoscience, and (non-)lethality. Specifically, through discourse analysis I investigate how knowledge production generates regimes of truth that institutionalizes security realities that order, manage, and discipline ideas and practices of (non-)lethality. Discourses of security and non-lethal weaponry employ various 'strategies of conviction' in establishing and/or maintaining technoscientific or political/ideological frames meant to normalize and legitimize non-lethal weapons (Waitt 2010). In other words, discourse analysis is employed to link security and non-lethal weapon discourses to the ways power/knowledge operates within a technoscientific governmentality that disciplines, fosters, manages, and monitors the conducts of individuals, institutions, spaces, and the state.

In doing so, the ways in which security, technoscience, and (non-)lethality become understood in the knowledge-making process as valid, legitimate, and authoritative is exposed. Thus, I pursue a critical

analysis of the ways my data imagines security within the STS-security interface. This opens geographical inquiry into the various ways security is defined and imagined and asks important questions about how knowledge(s) of security and non-lethal weapons co-produces security mechanisms of interventionary power in contested spaces. In particular, I investigate how expertise shapes and produces effects of truth within my data. Security expertise mediates between a multitude of forms of knowledge and "is crucial to understanding whose knowledge informs security-making and to reflect on the impact and responsibility of security analysis (Berling & Bueger 2015, p. i). The effects of truth are then bound to the ways technoscientific-security relations are produced, known and subsequently framed. The analysis of source materials to determine frame types follows the framing process drawn from my conceptual framework in Chapter 3:

Framing Processes:

1. *Diagnostic Framing: identifies problematic context and conditions necessitating change*
   To the extent that the state embraces the tenuous monopoly on exercising violence as part of its portfolio of security mechanisms where use of force is presented and practiced as a legitimate way of resolving contentious politics, the calibration, and metrics of (non)lethality becomes an accountable way the state achieves its security means. The perceived reduction of the acceptability of lethality and injury in the deployment of non-lethal weapons legitimizes the state's expanding use of force options in the growing global police-military-network.

2. *Analytical Framing: addresses what should be done*
   To the extent that non-lethal weapons make new forms of state interventionary, disciplinary power possible and engender political violence as new technoscientific and security realities become acceptable, the range of conditions of non-lethal weapons deployment needs to be better understood as the global police-military-network expands.

I identified two dominant frame types that emerge from an analysis of my source materials:

1. *Technoscientific Framing: invokes scientific and technical determinisms;*
2. *Political/Ideological Framing: invokes strategic objectives, ethical assessments, and moral frameworks*

Technoscientific frames are formed by invoking scientific and technological expertise to depoliticize discussion and debate of non-lethal weapons. The emergence and stabilization of technoscientific master frame(s) are dependent upon technoscientific determinisms of non-lethal weaponry as developed and deployed in solely technical terms, not terms that would raise social, ethical, or political questions of their own. Political/Ideological frames are formed by invoking the strategic

objectives, ethical assessments, and moral frameworks of the (non-)lethality distinction. Security experts use the sensibility and conceived morality of non-lethality in use of force options which is difficult to criticize or confront as the other position in the (false) binary of the (non-)lethality distinction are lethal options. As such, an analysis of dynamics of technoscientific and political/ideological framing (and counter-framing) of security and non-lethality becomes a useful method for understanding how modern state security frameworks are imbued with legitimacy and accountability to intervene in contested spaces.

It is also important to explore silence in my source materials and texts, "becoming attuned to silence in your texts is as important as being aware of what is present" (Waitt 2010, p. 235). What is not said or remains invisible in texts can be just as important as what is said and is visible (Rose 2001). Foucault understands silence as operating on at least two levels within discourse. The first 'silence as discourse' acknowledges how subjectivities are created within discourse. Authority and expertise are bound to such questions as who has the right to speak or who does not? And who is silenced? The second way Foucault conceptualizes silence is through his notion of privileged or dominant discourse that silences alternative understandings of the world. I engaged significant investigatory analysis into the complexities of secrecy and disclosure in dominant discourse of security and non-lethal weapons. This area of inquiry is drawn from my conceptual framework that addresses the power of secrecy in security mechanisms. Spaces of classification, closed knowledge communities ("black boxes"), and the compartmentalization of knowledge create analytical obstructions that produce dominant discourses of security and non-lethal weapons that can be analyzed.

Overall my analysis considers how knowledge co-production generates meanings and regimes of truth that order, manage, and discipline security realities of non-lethal weapons through which social and spatial control is exercised by the state. While these discursively co-produced security realities are unstable, multiple, and at times contradictory various strategies of convictions are employed to bring about a militarized/securitized common sense order to state interventions in contested spaces. In other words, dominant discourses and master frame types of security and non-lethal weapons legitimize and normalize non-lethal weapons deployment against bodies in contested spaces. Therefore, Foucauldian

discourse analysis is employed to link these discourses to ideologies, power relationships, and knowledge production related to non-lethal weaponry embedded in technoscientific governance and the global police-military-network.

**Chapter Conclusions: Research Challenges**

Of course, an exhaustive analysis of all materials related to non-lethal weapons goes beyond the scope of this present project. I acknowledge that the scope of this research project and its limitations impact and influence the interpretation and analysis of my findings. However, the extensive nature of my research context review, my research design, and analysis all forward a rigorous study within the scopes identified in my introduction and my research questions. Even so, throughout this dissertation project I confronted numerous research challenges, particularly connected to methodology and overall project formation in relation to my case study in Bangkok. As I prepared my dissertation research outline and proposal I knew that I would have to contend with certain challenges right away such as Thailand's precarious political climate, access to data, and my 'otherness' being non-Thai which included language barriers as my Thai language skills are at low proficiency levels. While these challenges are significant, I fleshed out contingency plans to deal with each.

I was acutely aware that in May of 2014, the Constitutional Court ordered Prime Minister Yingluck Shinawatra out of office and the RTA seized power through military coup. The National Council for Peace and Order (NPCO) (a military political unit) was given assent by King Bhumibol under General Prayuth Chan-ocha as Prime Minister to rule by martial law and executive order. However, early on the NPCO released its "roadmap to democracy" a collection of reforming policies that would restore civilian rule. Many scholars, analysts, and activists saw this as a sign of increased cooperation between the NPCO and citizens demanding democratic rule be reinstated (Hewison 2014). Indeed, early analysis of data showed that Thailand's political climate afforded an opportunity to examine an empirical case study where the normalization of military-police paradigms and incorporation of non-lethal intervention policy and practice in contested space was ongoing and indicative of current contentious space-taking politics across the globe.

Yet, when I arrived in Bangkok in December 2015 for my initial fieldwork, it had become clear to most that the "roadmap to democracy" was rhetorical. Thai citizens' liberties are continually eroded, political parties function in name only, and censorship of the media is at all-time highs (Chavalpongpun 2016; Hewison 2014). The RTArF through the NPCO consolidated its power in all areas of government and continued to delay a referendum on a new constitution that would restore democratic rule while banning protest and enacting various forms of political repression (Hewison 2014). While in Bangkok, it was highly visible that spatially based coercive interventionary force by the Thai security apparatus was at the heart of the NCPO's state making project. Major public spaces in which I had planned to conduct participant observation, Lumphini Park, Ratchaprasong intersection, and Silom, were heavily policed and surveilled. Small manned-security structures were built and surveillance cameras were placed throughout these public spaces in Bangkok. I was even sternly asked not to take photos of these new security measures.

On August 7, 2016 a constitutional referendum was held and approved by the Thai people which consolidated and legitimized the military's influence and rule in Thai politics for the foreseeable future. While the details of the politics of the constitutional referendum are outside the scope of this project (see Pruksacholavit & Garoupa 2016; Bermeo 2016; McCargo et al. 2017) its passing considerably impacted my project. The NCPO and RTA used various national security concerns to manipulate their increasing privileged political standing and justify their increasing extension into all areas of Thai politics. Shortly thereafter, access to interview participants from the RTArF and RTP that I had requested were denied not formally but by their ceasing correspondence. That fall semester I realized that interviews were no longer going to be a part of my project. The centralization of state power under the NCPO and increasing punishment of dissenters shifted my original plans to collect and access data from interviews and participant observation to a discourse analysis methodology.

Access to data is a methodological limitation that all researchers must contend with in some way or another however, access to data (people, organizations, documents, etc.) related to security matters confronts spaces of classification, various black boxes, concealments, and denials. I acknowledged this

limitation by exploring knowledge and secrecy in my conceptual framework and my analysis. I also set up rigorous search parameters for data regarding non-lethal weapons, security, and policing in Bangkok that allowed me to field more data than expected including leaked documents, such as communications between Russia's Federal Security Service (FSB) and the RTP (see Appendix 1). I originally sent correspondence letters, interview requests and filled out research query forms by email to the RTArF, RTP, the U.S. Non-Lethal Weapons Joint Directorate, Joint Science and Technology Institute, and Joint Research and Development Program to gain access to data and build contacts. I discovered that attempting to access data through official channels yielded far less response than informal connections built throughout my time in Thailand and in my research process. The RTP was initially interested in my research project as they are generally open to researchers and research (see Puthpongsiriporn & Quang 2005; Haanstad 2008; Chambers 2015). However, with shifting political dynamics in Thailand occurring simultaneously, that connection ceased in November of 2017. While access to data was strained by the serious implications of the centralization of state power and the states proclivity for secrecy, concealment, and denial I collected a significant amount of useable data.

As I am non-Thai, my otherness related to my positionality discussed above impacts my overall research design and methodology. My status as an American citizen allowed me to navigate these politically charged spaces of security with more ease than if I were a Thai citizen. Under the NCPO in Thailand, dissent and vocal opposition are rarely tolerated and such actions have significant consequences. For example, the NPCO increased policing and charges under the *lese-majeste* laws, which criminalize defamation, insulting, or threatening the king, queen, heir-apparent, or regent, to actively deter political dissent by likening any dissenting opinions with opposition to the king (Chambers 2017; Bubsbarat 2018). While non-Thai citizens are not absolved from *lese-majeste* laws there are certain latitudes of privilege assumed. This heightened strategy to mitigate political dissent reached never seen levels when King Bhumibol died on October 16, 2016.

Originally a major concern when designing this research project revolved around the challenge of language barriers as my Thai language skills are at low-mid proficiency levels. In my funding proposals,

I identified significant financial resources to translators and translation services. However, once my project was adjusted to be centered on discourse analysis, this challenge became less of a concern. As a member of the Association of Southeast Asian Nations (ASEAN) whose working language is English, a clear majority of Thailand's national policies are translated into English. I also relied on NGOs and other researchers' translations of source materials and texts that were used in my analysis. For example, the Martial Law Act B.E 2457, Emergency Decree on Public Administration in State of Emergency B.E. 2548 and Internal Security Act B.E. 2551 were all translated into English by The National Human Rights Commission (NHRC). I am sure there are other source materials and texts that could be included for analysis but are not because of language barriers in the collection of data. I am confident in the overall collection of my data for analysis.

Though these research challenges and limitations exist, there are opportunities to further engage research on the geographies of non-lethal weapons in future interdisciplinary research. This project lays the foundation for increasing geographical inquiry into the intersection of state-sanctioned violence, classifying bodies and spaces as threats, risks, or insecure, and the rising prioritizing of science and technology in the service of state security agendas. For example, an apt area of study that can emerge from this project is a comparative analysis of multiple case studies across a spectrum of political, social, and spatial contexts. Overall, my methodology and my conceptual framework are well positioned to answer my research questions within the scope of this research project and afford an opportunity to build upon this research in the future.

# Chapter 5 Analysis of Non-Lethal Weapons in Contested Space

## Introduction

In this chapter, I examine the geographies of non-lethal weapons in contested space, focusing on their capacity to extend state sanctioned violence, contribute to the identification of bodies and spaces as threats, and their role in the prioritization of science and technology in the service of state security agendas to address my primary research questions:

1) How do non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence?
2) How are non-lethal weapons stabilized within global police-military-network policy frameworks that shape state interventionary power in security and contested spaces?

I analyze the ways master and counter framings of non-lethal weapons produce discursive structures around security, (non-)lethality, and technoscience that shape the geographies of non-lethal weapons undertaken through forms of technological transformation and political violence. As discussed in the following sections, an analysis of the technoscientific and political/ideological framings of non-lethal weapons makes visible the ways that the co-production of knowledge, practice, and materiality mobilize ideas and meanings of (non-)lethality in multiple ways. An analysis of the dynamics of technoscientific and political/ideological framing and counter-framing of non-lethal weapons becomes a useful method for understanding how modern state security frameworks are imbued with legitimacy and accountability to intervene in contested space, often with violent and deadly results. While I examine technoscientific framing and political/ideological framing discretely below the overlap of each in producing the geographies of non-lethal weapons is undeniable. Master frames, regardless if they are technoscientific or political/ideological, continually makes things possible. Overall, in this analysis chapter, I interrogate the spatial imaginaries that inform technoscientific and political/ideological frames of non-lethal weapons that are assembled to legitimize and normalize violence in contested space.

As such, this chapter encompasses my analysis in my effort to better understand the complex geographies of non-lethal weapons. It is composed of six main sections with multiple supporting sub-sections. After this brief introduction, I identify ten primary findings of my analysis of source materials.

These primary findings are determined from my analysis of technoscientific and political/ideological frames analyzed and discussed in the subsequent sections. In the next section, I evaluate technoscientific framings of non-lethal weapons and how they assist in changing the dynamics of policing contested spaces and bodies. This is followed by my analysis of technical-tactical biases embedded in technoscientific frames of non-lethal weapons that shape the ways technoscientific expertise, (non-)lethality, and security are co-produced. The subsequent section explores the spatial consequences of technoscientific frames of non-lethal weapons. Next, I interrogate the ways non-lethal weapons are stabilized within global police-military policy frameworks by addressing political/ideological framings of non-lethal weapons. This is followed by an analysis of humanitarian ideals of non-lethal state intervention. In the subsequent section, I examine the spatial effects and symbolic consequences of political/ideological frames of non-lethal weapons. Finally, I offer some concluding thoughts on my analysis of technoscientific and political/ideological frames of non-lethal weapons and the geographies of non-lethal weapons.

**Primary Findings**

I determine that both technoscientific and political/ideological master frames of non-lethal weapons depoliticize discussions and debates of non-lethal weapons. The depoliticization of non-lethal weapons is mobilized by expert knowledge and techniques of deliberation that disconnect and replace dissensual contestation with technocratic security norms and ideological imperatives from which legitimacy and authority are drawn. Conversely, counter technoscientific and counter political/ideological frames attempt to (re)politicize discussion and debates of non-lethal weapons by displacing master frames. However, as my analysis will show, the disruptive potential of counter frames of non-lethal weapons is fragile as the hegemony of 'common sense' understandings of insecurity, threat, disorder, and (non-)lethality are difficult to confront. As such, ten primary findings are identified below:

1) Through technoscientific and political/ideological master frames of non-lethal weapons, official policy discourses institutionalize and normalize specific understandings of non-lethal weapons that serve to depoliticize their role in the state's tenuous monopoly of violence in the use of force against civilians in contested space.

2) Official and wider policy discourses both institute and control the controversies, intelligibilities and portability, and cultural practices of the science and technology of non-lethal weapons which serve to legitimize and stabilize non-lethal weapons within global police-military-network policy frameworks.
3) Official and wider political discourses not only dominate discussions and debates of non-lethal weapons through technoscientific master framing but also significantly constrain the emergence of counter-frames because of the ways the state and security mechanisms exert their supremacy in identifying spaces and bodies as "threats" and "insecure".
4) Alternative political discourses are often beholden to the same data and analysis of official and wider political discourses that mitigate their ability to contest master frames providing alternative understandings of non-lethal weapons.
5) As the prioritization of science and technology in security agendas becomes increasingly entrenched, technical-tactical biases mitigate issues of concern regarding non-lethal weapons and situate them within expertise and expert authority to depoliticize what would otherwise be highly contentious and politicized phenomena.
6) As global security governance and humanitarianism develop co-constitutively over place and time, a securitized humanitarianism facilities actions to extend state sanctioned violence in the (re)production of place and space through humanitarian ideals of non-lethal intervention and order-enforcement.
7) Official, wider, and political discourses employ political/ideological master frames to depoliticize state intervention by perpetuating fearful imaginative geographies of "insecure", "disordered" and "ungoverned" bodies and spaces that need to be benevolently disciplined.
8) The legitimacy of non-lethal weapons, bolstered by both technoscientific and political/ideological master frames, in state interventions in contested spaces produces wider programs of state political action regarding the use of force against civilians. These actions weaken responsible deliberation and cooperation surrounding policies and practices of (non-)lethality and security.
9) Non-lethal weapons provide a means by which increasingly interventionary security regimes can exercise violence to quell political and social dissent under the pretenses of "ethical" and "humane" interventions in contested spaces.
10) Master and counter framings of non-lethal weapons produce discursive structures around security, (non-)lethality, and technoscience that shape the geographies of non-lethal weapons with very real material, spatial, and embodied consequences and they need to be examined with greater nuance.

Overall, my research indicates that non-lethal weapons significantly transform the state's ability to embrace its tenuous monopoly on exercising violence as part of its portfolio of security mechanisms where use of force is presented and practiced as a legitimate way of policing contested spaces and bodies.

**Technoscientific Framing of Non-Lethal Weapons**

My aim in this section is to identify and explain the consequences of technoscientific framing of non-lethal weapons. The primary discursive structures of official discourses, wider political discourses, and alternative political discourses expose the ways non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and

violence as a technoscientific governmentality emerges in the social and spatial ordering of everyday life. Consequentially, my analysis indicates three primary findings:

1) Through technoscientific framing, official discourses and wider political discourses utilize technoscientific expertise to fix the parameters of discussion and debate as well as the parameters of who counts as legitimate authorities and experts.
2) Through technoscientific framing, official discourses and wider political discourses institutionalize and normalize technocratic logics and technoscientific expertise regarding capability gaps in the continuum of force and contend that non-lethal weapons fill that gap.
3) Through technoscientific framing, alternative political discourses contest the emergence and stabilization of the deployment of non-lethal weapons in the use of force against civilians. However, the contestation is beholden to the same technical expertise and technocratic logics used in master frames and is limited in the ways state and security mechanisms control knowledge.

The emergence and stabilization of technoscientific frames are dependent upon technoscientific determinisms of non-lethal weaponry as developed and deployed in solely scientific, technical, and tactical terms, not terms that would raise social, ethical, or political questions of their own. In other words, technoscientific frames invoke scientific and technological expertise to depoliticize discussions and debates of non-lethal weapons in state interventions. I argue that the ways (non-)lethality, technoscience, and security constitute a technoscientific governmentality transform the ways non-lethal weapons produce certain forms of power and security that (re)shape state interventionary power and political subjectivity. The technical calibration and metrics of (non-)lethality becomes an accountable way the state achieves its security means masking the networks and relations that underpin the politics of security and state violence embedded in everyday production of space. From the analysis of my source materials, one key dimension of technoscientific framings is identified and discussed in ensuing subsections:

1) *Technical-tactical biases:* Expertise about non-lethal weapons mediates through different forms of knowledge—scientific and technological, political, cultural, legal, etc.—however it is critical to understand the privilege of technoscientific and security expertise that inform the knowledge co-production of (non-)lethality in security. The co-production of knowledge regarding non-lethal weapons is negotiated through what I call technical-tactical biases that are discussed in the next section.

Technoscientific frames focus on scientific models, technological solutions, numerical objectification, and technological fixes perpetuated by security experts that determine how

technoscientific knowledge and technologies of social and political order (i.e., non-lethal weapons) are rendered meaningful in policing contested spaces. Knowing (non-)lethality in security, then, has to do with the ways technocratic ideals and technical specifications institute the "norms-producing/law making capacity" of the (non-)lethal distinction in everyday security-civilian relations stabilized within the matrix of state power (Martin 2018, p. 137). Technoscientific framings of non-lethal weapons in official discourses and wider political discourses provide a veil of obscuration that depoliticizes non-lethal weapons and the state violence embedded in non-lethal interventions. This is not to insinuate that technoscientific framings are "flawed", as counter-frames tend to argue, but rather, work exactly as they are designed to do.

**Technical-Tactical Biases: Whose Expertise Matters?**

Technoscientific frames of non-lethal weapons show how technoscientific governance create the specific conditions under which (non-)lethality in security emerge, exist, and change. More specifically, technoscientific frames influence decision-making processes from their original design to the final deployment of non-lethal weapons as they are structured by technoscientific and security experts and expertise. While the role of technoscientific experts and expertise in security is contentious and contested (see Chapter 2) there are security realities to expertise that are legitimized and stabilized in the relationship between technoscience, policy, and society more broadly in the global police-military-network (Pfister and Horvath 2014).

My analysis indicates that the global police-military network is a transnational space and instrument where knowledge and expertise about non-lethality in security are co-produced, mobilized, and stabilized in particular ways. This expertise is governed within institutionalized and structured boundaries that derive authority and legitimacy that shape "knowledge orders" of non-lethal weapons (Jung et al. 2014). As I discuss in Chapter 2, the practices of producing, organizing, managing, and ordering knowledge are of significant concern in state security agendas. The global police-military-network is an assemblage of actors, institutions, and mechanisms that manages highly politicized, competing, and contested knowledge orders for security policy-making and implementation in contested

space. As such, the global police-military network serves both as an institutional actor and facilitating mechanism in the co-production of knowledge orders of non-lethal weaponry. Additionally, I contend that knowledge orders of non-lethal weaponry are significantly shaped and defined by what I call *technical-tactical biases*.

Technical-tactical biases are preconceived norms-producing discursive structures and forces that are entrenched in specialist knowledge and technical expertise within technoscientific, security, and policy epistemic communities. These biases function through distinguishing relevant security, military, and science and technology experts, who largely agree among themselves, from so-called non-experts, who do not get a chance to participate or do so only marginally (Dewulf 2013). Technical-tactical biases inform normative claims about expertise that prioritizes traditional values of science and technology promoting technological fixes and scientific solutions to complex security concerns. They are entrenched in and enshrine conceptualizations of scientific objectivity and neutrality, technological models, firm evidence, numerical objectification, and classificatory practices, etc. Moreover, technical-tactical biases work to make expertise appear impartial and apolitical by setting limits on the phenomena they seek to represent or illustrate as well as delimits the criterions for inclusion and exclusion of who serves as legitimate authorities and experts (Gieryn 1999).

Technoscientific frames rely on technical-tactical biases and their importance in shaping how modern state security frameworks are imbued with legitimacy and accountability to intervene in contested space. This does not imply that security frameworks are driven solely by technology, but it is important to understand the ways in which technology is used to construct and understand security realities. There are four significant stages of technical-tactical biases within the securitized knowledge order drawn from my source materials that relate to the stabilization of non-lethal weapons in security agendas (see Table 5.1). I will provide a concise analysis of each in the subsequent subsections. While distinct, the four stages work co-constitutively: 1) knowledge co-production: creating technoscientific expertise; 2) ordering technoscientific expertise; 3) communicating technoscientific expertise; and 4) (de)stabilization and/or (de)legitimization of technoscientific expertise.

*Table 5.1*

| Stage | Characteristics |
|---|---|
| Knowledge co-production: creating technoscientific expertise | 1. Practices dedicated to the production of expertise that values scientific objectivity, technological solutions and fixes, and numerical objectification.<br>2. Produce data and facts through certainty, validity, credibility, and authority of expertise. |
| Ordering technoscientific expertise | 1. Define and frame the criteria for how expertise is used.<br>2. Institutionalize and sequester the mechanisms that control, manage, regulate, and order knowledge produced. |
| Communicating technoscientific expertise | 1. Create hegemonic visions/logics and generate common sense/taken-for-granted knowledge regimes.<br>2. Stabilize representations of non-lethal weaponry. |
| (De)stabilization and/or (de)legitimization of technoscientific expertise | 1. Discursive practices in which expertise and its inherent authority are distinguished, (de)stabilized and/or (de)legitimized, and supplement knowledge order.<br>2. Implementation of knowledge orders. |

***Technoscientific Modeling of "Significant Injury": Technical-Tactical Biases and the Body***

Technoscientific expertise facilitates greater technical and scientific knowledge making and modeling related to non-lethal weapons that assists to technologize the (non-)lethal distinction. In other words, the technical calibrations and tactical metrics of injury (and death) can be meticulously calculated so that the materiality of (non-)lethality makes wider programs of state interventionary power possible. These calculations center the human body. However, technical-tactical biases render the body as a blank slate in which to ascribe a range of statistics and numerical modeling. The limits of and thresholds between injury and "significant" injury and between life and death can be determined with a body devoid of agency. Technoscientific modeling transforms the human body into skeletal structure with 206 bones pliable to 4,000 newtons of force, human flesh into a .05 to 4mm thick protective layer, and human organs which sustain life into five vital biological systems with specific objective functions essential to survival. Non-lethal weapons are intended to stress the human body without permeant/significant injury. Determining "significant injury" is deeply embedded in technoscientific knowledge co-production.

Across source materials, the prioritization of science and technology in working to quantify the thresholds of injury and lethality becomes a significant way technoscientific expertise of non-lethal weapons is co-produced. For example, blunt-impact munitions/weapons are designed to induce pain and

muscle paroxysm at the site of impact but must have upper-limits for the impact parameters to govern lethal effects (Widder et al. 1997). The upper-limits of impact parameters are determined through a range of complex calculations and formulas to ensure lethality is limited. One such formula is the Risk of Significant Injury (RSI) formula: RSI = P(injury occurs) x P(injury is significant | injury occurred). This formula is determined by "multiplying the probability that a specific injury will occur by the probability that the injury will be significant if it occurs" (King et al. 2018, p. 1). As a quantitative model that specifies the attributes of an injury, RSI estimates allow non-lethal weapons developers to "accurately quantify their weapons' risk of causing a significant injury" (King et al. 2018, p. 1).

A deeper examination into what "significant injury" means in the RSI formula exposes further technical and numerical calculations of bodily injury using the Viscous Model (CVmax [C= maximum of the instantaneous product of the fractional chest compression, times rate of compression, V]) which predicts the likelihood of injury to soft tissue from compression due to blunt impact (Widder et al. 1997). The science of these mathematical models attempts to quantify the acceptability of injury and violence against bodies by concentrating on technoscientific expertise. To situate this in bodily context, "Stingball Grenades" (SDI 2018) propel rubber pellets with a bursting charge of flash powder in a 50-foot circular pattern at energies that can reach 200 joules—121 joules over the minimum energy it takes to cause ballistic injury—before impacting the body. The first impact caused by the energy is displacement and compression of surface tissues which essentially "crushes organs and applies shearing forces to arteries, veins, bones, and connective tissues" (Widder et al. 1997, p. 5). The second, and often, more significant impact to the body occurs as time dependence is added to the calculation of injury. Energy sets off a "pressure pulse" increasing the displacement and compression of tissue that is accentuated in areas of the body with low volume tissue (lungs, stomach, and intestines) and leads to the collapse and fracturing of bones (Widder et al. 1998, p. 5). The statistical analysis of blunt-force impact is fastidiously calculated and scientifically verified to ensure impact projectiles do not penetrate the tissue, thereby avoiding the possibility of permanent/significant injury or death.

At first glance, the models and formulas above, which are well-established in expert technoscientific and medical epistemic communities, seem to validate the non-lethal criteria for blunt-impact munitions/weapons in an apolitical way. The data and statistical models above rationalize technoscientific expertise based in conceived accountability, objectivity, and fact. Technoscientific modeling and numerical objectification appears "innocent in terms of politics" and creates legitimatized authority of which to define the parameters of discussion and debate (Erkkilä & Piironen 2013, p. 347). However, taking the time to critically examine this knowledge order illustrates how technoscientific modeling and numerical statistics plays a role in delimiting the capacity of weapons to govern life and death. Models, formulas, numbers, and statistics allow those experts imbued with the authority to possess them to "'grasp' abstract phenomena and see their scope and limits" (Erkkilä & Piironen 2013, p. 347). In this case, it is the very limits of violence perpetrated against a body rendering it amenable to the possibility of death. This serves as an apt example of how technical-tactical biases function to depoliticize the (non-)lethality distinction in weapon design by relegating contestation in favor of technical and scientific determinisms in the co-production of knowledge.

***Technoscientific Compartmentalization of Knowledge: Technical-Tactical Biases and Black Boxes***

The ordering of technoscientific expertise serves to define and frame criteria for expertise and institutionalize and sequester the mechanisms that control, manage, and regulate knowledge production. Examining technical-tactical biases in this stage considers how technoscientific expertise regarding non-lethal weapons is nurtured and sustained by the compartmentalization of knowledge and is largely concealed by closed knowledge comminutes (so-called "black boxes"). My analysis indicates that the compartmentalization of scientific and technical knowledge from other forms of knowledge (legal, political, etc.) has significantly impacted non-lethal weapon development and deployment. The North Atlantic Treaty Organization (NATO) illustrates the standard model of how technical-tactical biases order technoscientific knowledge through the compartmentalization of knowledge regarding non-lethal weapons.

Research, development, and assessment of non-lethal weapons have occurred incrementally over two decades within NATO. Using advanced text searching through NATO's over 62,000 documents in its online archive that cover high level governance by reference code, specific title, and multiple keywords, there are over 60 documents that reference non-lethal weapons. However, there are only seven official reports, four technical and three policy, that directly relate to non-lethal weapons development and policy. The primary undertaking of non-lethal weapon development fell to the NATO Research and Technical Organization (RTO) and two of its seven Technical Panels that are "made up of national representatives as well as generally recognized 'world class' scientists" (https://www.nato.int/structur/rto/rto.htm). The RTO encompasses over 3,000 scientists conducting and promoting cooperative scientific research and technical information exchange across 28 NATO states and 38 NATO partners. As the science track of NATO, it is fair to assume that the RTO privileges technoscientific expertise favoring methodological modeling, firm data, and numerical objectification focusing on "high quality of technical output" within the parameters of its mandate (Coops 2008, p. 4). However, as discussed below the limitations of the RTO's technoscientific mandate significantly impacts overall research results on non-lethal weapons.

The RTO's four technical reports on non-lethal weapons shed light on how technoscientific expertise stabilizes technical-tactical biases in decision making and implementation processes. The brief summaries of the RTO's technical reports clearly indicate prioritization of the scientific method and the importance of technoscientific data, or lack thereof (see Table 5.2 for brief summaries of the RTO's reports).

*Table 5.2*

| **RTO's Technical Report** | **Summary** |
|---|---|
| SAS-035: Non-Lethal Effectiveness Assessment Methodology | Proposed a basic mathematical methodology for assessing the effectiveness of non-lethal weapons in a specific scenario using several technical inputs, like the design characteristics of weapons. Effectiveness was calculated using seven different dimensions: mobility, communications, physical function, sensation and interpretation, group cohesion, motivation, and identification. However, the research concluded that "the lack of adequate target response data was seen as a significant inhibitor to the implementation of the methodology" (SAS-035). |

| | |
|---|---|
| SAS-40: Non-Lethal Weapons and Future Peace Enforcement Operations | Identified five promising areas for continued non-lethal weapons research "using a structured approach for organising subject matter expertise (both operational and technological)" (SAS-40, p. iii). While research documentation remains classified, the report provides a summary which compares "operational requirements" (undefined) on range, onset, and duration "versus projected technological capabilities in 2020" (again undefined) (SAS-40, p. 47-48). A simple color-coded chart organizes data into a neat visual representation of five technologies that "can be used in combination with each other to increase effectiveness and resistance to countermeasures and could be made scalable from non-lethal to lethal" (SAS-40, p. 48). |
| SAS-60: Non-Lethal Weapons Effectiveness Assessment Development and Verification Study | Partly verified the system effectiveness methodology "with some issues remaining but confidence they can be resolved" of their non-lethal weapons development, technological and operational parameters for effective integration in NATO capabilities (SAS-60). This report is the first in relation to non-lethal weapons that examines the effectiveness of non-lethality itself at NATO. |
| HFM-073: Human Effects of Non-Lethal Technologies | Conducted to address the human effects of non-lethal weapons from the target (effectiveness of non-lethality) and the operator. Specific attention was directed at gathering target response data (type, quality, and quantity) sustaining the methodology proposed by SAS-035. Concluded that acceptance of non-lethal weapons use by NATO and the public in general is dependent upon human effects data. |

Throughout the technical reports, scientists insisted on increased attention and study to policy and legal concerns, as well as other knowledge areas (environment, medical, etc.) regarding non-lethal weapons:

> "the appearance of these new capabilities raises a number of scientific, legal, ethical, and political questions to be considered as part of the process of identifying new potential non-lethal weapon technologies deserving development for the future" (SAS-40, p. 12).

RTO findings continuously point to "lack of adequate data" and analysis of non-lethal weapons. Importantly, the distinct research conclusions offered by each report contribute to the knowledge order of NATO's overall policy stance towards non-lethal weapons which remains ambivalent at best (Coops 2008). Yet, NATO continues to aggressively push integration of non-lethal weapons in doctrine, force planning, and force application.

I argue this is the result of the compartmentalization of knowledge related to non-lethal weapons that results in incomplete conceptual understandings with several separate but not intertwined parts. How technoscientific orders are controlled, managed, and regulated has a significant impact on the development of non-lethal weapons. Technical-tactical biases privilege technoscientific expertise but the ways they are institutionalized in the ordering of technoscientific knowledge production highly influences

their actual use. For example, the NATO Defense Against Terrorism Programme of Work (DAT POW) which works to fast-track development of counterterrorism technologies and capabilities, including non-lethal weapons, does not link to past RTO data or analysis. In fact, the DAT POW relies on support from the Science and Technology Organization (STO) a different scientific branch of NATO.

NATO and other security institutions vehemently distinguish knowledge orders with a range of "divisions", "committees", "agencies", and "research and development branches" that all produce expertise that facilities decision making and implementation processes and practices. The fact that knowledge co-production is a process and continually in flux among different divisions makes it difficult to build a comprehensive knowledge order of non-lethal weapons. Even more difficult is the fact that a significant part of the knowledge co-production is classified and relegated into black boxes where secrecy is normalized (see Chapter 2).

The compartmentalization of knowledge facilitates the ordering of technoscientific knowledge in decision-making processes conditioned by technical-tactical biases. Dividing the intellectual labor in non-lethal weapons research strengthens the ability of technoscientific expertise to make normative claims promoting technological fixes and scientific solutions to complex security concerns. As such, technical-tactical biases become institutionalized competences to manage unexpected or undefined dimensions of knowledge production regarding non-lethal weapons. More importantly, they are structured as technical 'truths' that emerge from the many layers of regulated practices and processes in knowledge co-production.

***Technical-Tactical Biases as Common Sense***

Premised upon conceived and often contrived factual data given the credibility and validity of authority in the expertise offered, technical-tactical biases shape how we understand and represent non-lethal weapons. They assist in creating hegemonic visions/logics that generate common sense and taken-for-granted knowledge regimes. This often occurs through the creation of new discourses about non-lethal weapons that reflect specific technoscientific understandings aimed to stabilize non-lethal weapons in security agendas. These understandings share similar characteristics derived from conceptualizations

of scientific objectivity, technological solutions, and numerical objectification that render non-lethal weapons as solely technical objects facilitating a technological fix to disorderly spaces and bodies. This becomes especially meaningful when official and wider political discourses communicate specific representations to obfuscate the violent and injurious realities of non-lethal weapons.

One of the most problematic representations of non-lethal weaponry in official and wider political discourses is the practice whereby security experts re-classify non-lethal weapons as non-lethal "technologies" and/or non-lethal "capabilities". While a seemingly trivial trend, the implications of classificatory schema changes are vastly important for the successful co-production of technical-tactical biases utilizing scientific and security 'facts' to moderate contestation (Abeysinghe 2013). From a master frame perspective, it is more favorable to label non-lethal weapons as "technologies" or "capabilities" than classifying non-lethal weapons as "weapons":

> "The utility and relevance of non-lethal *capabilities* in 'New Normal' environments is appreciated by warfighters who require force application *tools* for short-of-lethal engagements, planners who understand the nexus between minimizing civilian casualties and achieving strategic goals, and policy makers who recognize that such restraint assures allies, coalition partners and domestic audiences" (DoD Non-Lethal Weapons Program 2015, p. 2, emphasis added).
>
> "Non-lethal weapons are more than just tactical weapons – they are *strategic enablers*" (DoD 2012, p. 2, emphasis added).
>
> "When de-escalation techniques are not effective or appropriate [...] and office is authorized to use agency-approved, less lethal force *techniques* and issued *equipmen*t" (National Consensus Policy on Use of Force 2017, p. 3, emphasis added)

The above quotes are emblematic of how technical-tactical biases create and communicate technoscientific expertise to normalize non-lethal weapons. This normalization connects the role of technology in our daily lives, which has become deeply entrenched in everyday habitual practice (from cell phones to credit cards). The classifying terms "capabilities", "techniques", "equipment" and "tools" work to connect non-lethal weapons to familiar common sense and everyday discourse. Discursive representations of technologies, tools, and capabilities are generally interpreted through their productive capacities to assist and simplify serving as scientific and technical gadgetry. Co-producing regime truths around 'tool-making' reduces technologies and their complex sociopolitical assemblages to inert non-

human technological objects. In other words, it disconnects the agency and roles of non-humans and materials in the practices and (re)production of everyday life. A growing number of geographers emphasize and examine the role of the non-human and material in social systems and knowledge co-production (Whatmore 2002; Wright 2014; Larsen and Johnson 2017). In this vein, I contend that technoscientific master frames depoliticize the science and technology of non-lethal weapons realities through the communication of technical-tactical biases in technoscientific expertise that renders their use as common sense.

Accordingly, this discursive practice works to suppress the messiness of thinking through the contradictions and ambivalences of non-lethal weapons. The foundational contradictions of non-lethal weapons stem from the difficulties in classifying and assessing a diverse and disordered set of activities (Rappert 2003). Technical-tactical biases in this stage constitute the phenomenon they classify concealing controversies in knowledge production of non-lethal weaponry. They create classifications that reaffirm the seemingly neutral and apolitical nature of technoscientific expertise. The technical and tactical design specifications, calibrations, and operational parameters of non-lethal weapons become credible and salient "data" and "facts" embedded and stabilized in security mechanisms that normalize the valuation of bodies and metrics of (non-)lethality. In other words, technoscientific framing of non-lethal weapons sustains normative designations of violent force materialized through non-lethal weaponry and their technical-tactical calibrations that legitimate non-lethal state interventions in contested spaces. By positioning non-lethal weapons in this way, technical-tactical biases set the parameters of the conversation and ensuing controversy. Throughout the source materials, re-classification serves to desensitize and normalize as these new discursive structures foster the emergence and stabilization of the technoscientific framings of non-lethal weapons.

***Stabilizing and Legitimizing Technoscientific Frames: Technical-Tactical Biases Conclusions***

The outcomes of technical-tactical biases in the ordering of technoscientific expertise relating to non-lethal weapons serves to (de)stabilize and/or (de)legitimize their roles and forms the foundation for which to implement knowledge orders. Technical-tactical biases as norms-producing discursive

structures and forces are meant to maintain a level of certainty about technoscientific expertise and claims. They work to weave together technological determinisms of non-lethal weapons that result in an asocial and apolitical perpetuation of their existence. Thus, technical-tactical biases structure technoscientific expertise so that the relations of innovation and technological design produce knowledge orders never intending to ask how non-lethal weapons are created, why they are created, by whom, and what norms or values non-lethal weapons embody and materialize? As such, non-lethal weapons become stabilized within global police-military-network policy frameworks that shape state interventionary power in security and contested spaces through technologically determined depoliticization by technoscientific master frames.

Alternative political discourses contest the stabilization and legitimization of non-lethal weapons in the use of force against civilians. This affords an opportunity to point out the cracks in the façade of technoscientific master frames. However, my analysis indicates that alternative political discourses are beholden to the same technical expertise and technocratic logics used in master frames. I believe that this is due to the highly regulated and tightly controlled knowledge orders of non-lethal weapons. In fact, many alternative political discourses continue to rely on the same technical-tactical biases embedded in technoscientific master frames to promote their views on non-lethal weapons which are often inconsistent. For example, Amnesty International sustains one of the most important contesting discourses of the use of force against civilians yet it "acknowledges the importance of developing non-lethal or 'less than lethal' force options to decrease the risk of death or injury" (Amnesty International 2015). Amnesty International argues that non-lethal weapons, if used, should be limited to situations in "accordance with UN standards" without attesting to the fact that UN standards on non-lethal weapons are deeply entrenched in technical-tactical biases and often perpetuate the very same standards Amnesty International critiques (UN Report on Less than Lethal Weapons 2015).

Overall, the emergence and stabilization of technoscientific frames are dependent upon technoscientific determinisms of non-lethal weaponry that are supported by technical-tactical biases within technoscientific expertise. These technical-tactical biases mitigate issues of concern regarding

non-lethal weapons and situate them within expertise and expert authority in order to depoliticize what would otherwise be highly contentious and politicized phenomena. Official and wider political discourses not only dominate discussions and debates of non-lethal weapons through technical-tactical biases which build concrete technoscientific frames but also significantly constrain the emergence of counter-frames because of the ways the state and security mechanisms exert their supremacy in identifying spaces as "insecure" and bodies as "threats". Technoscientific master frames define insecurity and threats in very particular ways that limit viable counter frames. This process is progressively determined through the conceived objectivity and neutrality of science and technology in the service of state security agendas with very real spatial consequences.

**"Threat" Assessment: Spatializing Technoscientific Frames of Non-Lethal Weapons**

In this section, I examine the spatial consequences of technoscientific frames of non-lethal weapons. I am concerned with illustrating how epistemic authority and expertise created by technical-tactical biases are spatialized through a shared vision of threat and practice of security in non-lethal interventions in contested space. There is a particular geography to constructing threat and security in contested space underpinned by an increasing technoscientific understanding of the use of force. More specifically, my research contends that the production of threat and deployment of security are dependent upon a technoscientific paradigm of threat assessment and scalable capabilities to address threats, materialized through non-lethal weapons through the spatial practices of containment and distance. The spatial arrangements formed in relation to these particular understandings of threat and security change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence, in other words, a legitimization of a militarization of non-lethal state interventionary power.

Threat assessment is conceptualized here as the hyper-rationalized practice of determining the credibility and gravity, with quantified indicators of abnormality, of a potential threat as well as the likelihood that this threat will materialize. The ongoing operation of multiple, simultaneous, and often conflicting means of classifying and assessing threat illustrates complex socio-political regimes and

technoscientific orders of verification that emphasizes distrust, expertise and evidence, and probabilities (Maguire and Fussey 2016). The objectification and internalization/externalization of threat and threat assessment emerge as key to modern calculations of (in)security. As technocratic ideals of security proliferate in the global police-military-network, threat assessment is increasingly understood through the lens of technocratic managerial practice. As such, threat assessments are progressively technologically-based, methodical, and indiscriminately applied and stabilized by technoscientific frames and their technical-tactical biases.

Significantly, as threat assessment becomes more technoscientific in conceptualization, the highly discretionary and discriminate nature of threat assessment is rendered invisible by perceived objective standards and neutrality. However, I vehemently contend the increasing technoscientific nature of threat assessment is conditioned by socio-political and historical forces—colonization, capitalism, imperialism, globalization (to name a few)—that institute the circumstances for which the productive capacities of order, discipline, and state violence are spatially understood and unevenly applied. Determining and acting upon threats within contested space reproduces racist, classist, gendered, sexist, homophobic, transphobic, ableist, ageist, and geopolitical discrimination and violence. A critical geography of non-lethal weapons must acknowledge the unremitting nature and lived experience of these violent practices even as the state and security mechanisms perpetuate technoscientific frames in apolitical, asocial, and aspatial ways.

Mapping 'threats' in contested space then emerges from greater technoscientific logics of state intervention. Innovative technologies (from information technology to weapon systems with scalable effects), knowledge co-production and expertise, and decision making and implementation constitute a security regime focused on creating a continuum of force—from non-lethal to lethal force—to identify and intervene to impede a wide range of threats. The degrees or stages of this continuum of force exercised in a conceived logical progression affords the opportunity for the state to extend the interoperability of the use of force to dislocate bodies and secure contested spaces. While most scholars are interested in threat assessment and the weaponization of the continuum of force and its lethal

consequences, like Hall-Kindervater's (2017) work on "lethal surveillance" (i.e., Predator drones), I am more concerned with the ways the militarization and weaponization of the continuum force *fosters life* through non-lethal weapons. In other words, the ways no-lethal weapons stabilize the non-lethal/lethal distinction of response options within the continuum of force that non-lethal weapons continue to expand. Any weapon deployed to ensure security that is conceived to not kill is promoted as fostering life. Put simply, threat assessments function to perpetuate a technoscientific rationality of the use of force as part of the state's project to discipline bodies and control space through new forms of militarized (non)lethal interventionary power in an effort to legitimize a range of weapons designed *not* to kill. I argue that understanding non-lethal weapons through this technological rationality broadens the spatial relations of non-lethal state intervention in contested space.

The underlying growth of non-lethal weapons in the continuum of force is dependent upon the growing assumption that state security apparatuses must fill a capability gap between "shouting and shooting" to address threats (LeVine & Rutigliano 2015, p. 242). Therefore, non-lethal weapons are designed and operated to fill conceived capability gaps. Treating the violence(s) experienced between shouting and shooting as filling gaps becomes an apolitical and technocratic exercise that renders the vast array of injurious and deadly weaponry employed as legitimate. Legitimacy of the continuum of force is wielded to erect a formidable system of violence evaluated as objective, creating standards against which all forms of threats are constituted thus determining what action to take. Non-lethal weapons are stabilized in the continuum of force as force multipliers with "greater operational range, scalable to a variety of needs, to provide a defense against potential threats" (DoD 2013, p. 5). It is without doubt that non-lethal weapons add a diverse arsenal that has expanded the degrees/stages and range of the continuum of force. More importantly though, non-lethal weapons have increased both the legitimacy and violence of the continuum of force that is exercised against bodies in contested space by evoking the non-lethal/lethal distinction. As such, non-lethal weapons are used to legitimize state power and violence by fostering life of the individual being disciplined rather than taking it. The stabilization of non-lethal weapons in the continuum of force has created new forms of (non)lethal interventionary power. Perhaps,

more insidious though, are the ways (non)lethal interventionary power is militarized, discursively and materially, that sustains and necessitates geographic imaginations of threat at multiple scales.

Novel forms of militarized (non)lethal interventionary power perpetuate uneven geographies of violence in contested space. The violence and harms of non-lethal state intervention are not experienced evenly, as the spatial relations in contested space are dynamic and unpredictable and the embodied effects of non-lethal weapons are incredibly diverse and often unknown. My analysis suggests that technoscientific calculations of threat assessment in determining the justification of violent intervention in contested space constitute the spatial tactics and practices of *containment* and *distance*. Once identified as a threat and rendered a security risk, bodies and spaces are amenable to violent intervention to contain mobility and the seizure of contested space through space-taking politics. Non-lethal weapons are vital to these spatial tactics and practices of dislocating bodies and securing space.

The spatial practices of containment and distance are fundamentally employed to control and order space, people, and their movement as space-taking politics (re)produce contested space (Martin and Mitchelson 2009). Bearing in mind that the spatial practices of containment and distance occur in everyday practice in mundane ways (e.g. traffic barriers), containment and distancing in contested space is purposefully coercive and violent shaping spatial arrangements in favor of state power and violence. To contain the conceived threats of space-taking politics the state and security apparatuses demarcate, border, and attempt to isolate contested space from the outside world. Isolation is intended to limit the visibility of both the acts of space-taking politics and the interventionary practices of the state. Significantly, controlling the frames of visibility affords an opportunity to draw homogenized representations of participants, who are hidden from view, as collective threats to social and spatial order. Containment and distance are distinct and temporal logics and spatial practices that fundamentally attempt to fix space and identities in the technoscientific calculus of threat assessment. Even with the advent and strategic use of communication technologies, like cell phones, to increase the visibility of space-taking politics and state intervention the deployment of non-lethal weapons often make visible benevolent non-lethal actions conceived to be minimizing injuries and preventing death. Overall, a

technoscientific governmentality emerges that shapes, and is shaped by, state interventionary power relations within contested space.

The first wave of containment in state intervention in contested space involves demarcating and bordering space using security barricades, like fencing or security personal lines known as 'echelons'. Often borders are established around contested space with significant distance from the site of space-taking politics. Maintaining distance allows security forces to construct the basis of their legitimacy as "keeping the peace", but also serves to ensure that non-lethal weapons deployed are within appropriate range to enforce compliance while minimizing significant injuries. Contrary to popular beliefs, participants in space-taking politics are rarely "completely surrounded". Echelons are often organized to ensure "escape routes" as the primary goal of initial practices of containment is to project force and to intimidate participants to disperse, through visual and auditory coercion. A significant number of field manuals and research on crowd control management denote these forms of intimidation as "passive" or "preventative" (see Archer 1994; Bonn & Barker 2000; Kenny et al. 2001). However, a geographic approach understands that containment is never passive. Containment of contested space acts as a series of practices and processes that operate through continuous spatial re-arrangements of coercive power, threat assessment, and violence.

Once a specific threshold of threat is transgressed in the threat assessment calculus (often unknown and undefined), higher levels of the continuum of force are operationalized by state forces to secure contested space and dislocate bodies. As this occurs, the spatial practices of containment and distance activate a range of indiscriminate (violent) practices that become important and productive to securing contested space and legitimizing the state's exercise of violence and power. Deployment of medium (15 to 30 meters) to long range (50 to 100 meters) tear gas grenades, flash-bang mortars, and blunt-impact munitions (bean bags and/or rubber bullets) accompany the spatial tactic of 'kettling'—a method of corralling into more confined spaces. Tactical echelon units rapidly close escape routes and begin to minimize the distance between the front line and space-taking politics participants further containing space-taking politics and limiting its visibility. Crowd control tactical shields protect the front

echelon from projectiles and or participants themselves. As the tactic of kettling continues and distance collapses, participants are subjected to short range (5-7 meters) and contact distance (0-2 meters) non-lethal weapons, like batons, shields, individual pepper spray, and conducted energy weapons. As kettling further restricts and contains space-taking politics in contested space, the distance that once separated security forces from space-taking politics participants is reversed as echelons start to capture contested space.

The operational parameters of non-lethal weapons have become essential to the spatial practices of containment and distance in rearranging contested space and reifying the legitimacy state power and violence. Non-lethal weapons are deployed by the state to discipline bodies and order contested space through conceived objective and neutral calculus of threat assessment. Moreover, technoscientific frames of non-lethal weapons emphasize technical-tactical biases that reaffirm non-lethal state intervention as benevolent, acceptable, and ultimately legitimate. Non-lethal weapons are recognized as technical solutions to indeterminable political problems in contested space and in the process, depoliticize the violence of their deployment. In practices of security, a technoscientific governance assists in working through the ways that non-lethal weapons produce certain forms of power and security that (re)shape state interventionary power and political subjectivity. Dominant understandings of technoscientific framings of non-lethal weapons become a means through which state sanctioned violence is extended and accepted. As technoscientific logics and practices increasingly underpin threat assessments, the spatial consequences of technical-tactical biases produce uneven geographies of violence in contested space. The increasing acceptability non-lethal state interventions has allowed for a conceptually swollen continuum of force causing use of force option gaps and a growing number of non-lethal weapons designed to fill these conceived capability caps.

Of course, the spatial tactics and practices of containment and distance do not operate in isolation, but rather are embedded in the broader, systemic militarization of society and blurring of policing and warfare, state and war machine, and the civilian and military. Technoscientific frames serve to separate non-lethal weapons and non-lethal state intervention in contested space from these broader socio-political

processes and practices. Non-lethal state interventions are increasingly stabilized within hegemonic visions of scientific objectivity and neutrality viewed as optimal asocial, apolitical, and spatial orderings of contested space. The increasing integration of technoscience and security governance (re)define our political and social futures through security hegemony and omnipresence and significantly shapes spatial relations in everyday life. Overall, in my analysis two considerations become crucial when thinking through use of force in non-lethal state interventions: a belief that a continuum of force, as an operational techno-administrative proficiency, depoliticizes questions of legitimacy in exercises of the use of force and violence, and a belief in the conceived logics and practices of a militarized (non-)lethal interventionary power that corrects problematic social and spatial orders.

**Political/Ideological Framing of Non-Lethal Weapons**

The purpose of this section is to identify and explain the consequences of political/ideological framing of non-lethal weapons. Official discourses, wider political discourses, and alternative political discourses employ humanitarian logics reconfigured through militarized/securitized lenses to legitimate and facilitate violence of non-lethal interventions, although with variation. The preservation of legitimacy of state interventionary power and violence are discursively co-produced as security and policy experts and expertise advance a more ethical and humane way to wage violence with non-lethal weapons in the social and spatial ordering of everyday life. My analysis indicates four primary findings that show how political/ideological framings of non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence. These findings are as follows:

1) As global security governance and humanitarianism develops co-constitutively over place and time. A securitized humanitarianism facilities actions to extend state sanctioned violence in the (re)production of place and space through humanitarian ideals of non-lethal intervention and order-enforcement.
2) Political/ideological master frames of non-lethal weapons serve to conceal their violent implications through benevolent discursive structures guided by humanitarian ideals of non-lethal intervention.
3) Political/ideological master frames of non-lethal weapons perpetuate fearful imaginative geographies of “insecure”, “disordered” and “ungoverned” bodies and spaces.
4) Through political/ideological framing, alternative political discourses contest the emergence and stabilization of the deployment of non-lethal weapons in the use of force against civilians by

> interrogating the philosophical abstraction of the principles of morality and ethical appraisals in non-lethal state intervention.

Political/ideological framings emerge from the ambiguous and amorphous ethical and moral dimensions of state power in a calculus of (non-)lethal distinction that foregrounds the state's responsibility to provide order while quelling legitimate concerns about the state's tenuous monopoly of violence. I argue that official discourses and wider political discourses use the sensibility and conceived morality of non-lethality in use of force options bound to a growing global humanitarianism in security logics. As a result, discourses depoliticize non-lethal weapons in a way that makes it difficult to criticize or confront as the other position in the (false) binary of the (non-)lethal distinction are lethal options. In other words, the perceived reduction of the acceptability of lethality and injury in the deployment of non-lethal weapons legitimizes the state's expanding use of force options in the growing global police-military-network. My analysis shows that non-lethal weapons continue the long tradition in security and policing bodies and spaces whereby the state aggressively pursues forms of moral and social order through disciplinary exercises of state power and violence (Foucault 1974a, 1997, 1991, 1994).

The political/ideological master framing of non-lethal weapons deployment in non-lethal state intervention emerges from an expanded understanding of humanitarianism as a logic of governance that supports the (non-)lethal distinction. A full examination of humanitarianism is outside the purview of this project (see Barnett 2011; Fassin 2012), but the spatial dimensions of humanitarianism and security are increasingly thought through together in geography (Gregory 2010; Bryon 2015). While humanitarianism is typically thought to be apolitical as it is constituted through the principles and practices of 'neutrality', 'impartiality', 'humanity', and 'independence', in reality, these principles and practices are far from apolitical (McCormack and Gilbert 2018). It is common to conceptualize humanitarianism as sitting in opposition to security. However, under greater scrutiny security and humanitarianism share many of the same logics and practices (Pallister-Wilkins 2015, 2018). Humanitarianism has developed into pervasive and contentious global ideology, and as such, has come to constitute a dominant and productive framing for the transformation of security policy and practice across the world (Hyndman 2000; McCormack and

Gilbert 2018). As such, the intense entanglement of humanitarianism and security is significant to understanding how non-lethal weapons are stabilized in the global police-military-network.

My concern is not to (re)evaluate humanitarianism in all its complexities but rather to analyze the ways humanitarian ideals and discourses underpin political/ideological framing of (non-)lethality in security related to non-lethal weapons. Political/ideological frames of non-lethal weapons draw on conceived 'benign' forms of power embedded in humanitarianism. These humanitarian ideals of non-lethal intervention serve to order morality and ethics of violence and mitigate against imagined geographies of "insecure", "disordered" and "ungoverned" spaces and bodies. My analysis indicates that political/ideological frames of non-lethal intervention depoliticize the contestation of non-lethal weapons through the ways humanitarian ideals, materialized through non-lethal weapons, are understood as setting limits on state violence and securing disordered and ungoverned bodies and spaces. The evolving entanglement of humanitarianism and securitization facilitates a legitimization and naturalization of non-lethal violence that orders spaces and bodies.

**Humanitarian Ideals of Non-Lethal State Intervention and Non-Lethal Weapons**

In this section, I argue that non-lethal weapons deployment in contested space emerges from the contradictory demands of securitized humanitarian ideals in non-lethal state intervention. The demands of humanitarian ideals, materialized through non-lethal weaponry, extend the range of state violence and contribute to the ordering of contested space through the normalization and instrumentalization of humanitarian ideals in exercises of state power (Calhoun 2008). On the one hand, normative or value laden humanitarian logics, are concerned with the undertaking of making life and determining the limits of violence. As such, non-lethal weapons are designed and employed to ensure that the calibration of force mitigates the potential lethality of state exercises of violence. On the other hand, the instrumentalization of humanitarianism serves to discipline spaces and bodies in contested space through various conceived 'benign' forms of power and violence. As such, the usefulness of non-lethal weapons in enforcing order in contested space is determined by their capacity to enact a controlled violence

limiting 'excessive' violence. Significantly, in defining and limiting excessive violence, all other forms of violence become legitimate (Bourke 2014).

Limiting violence and preventing undue suffering are two foundational ideals within the complex genealogy of humanitarianism. The normalization of humanitarian ideals determines and defines what the best possible violence, or "optimal violence", in non-lethal state intervention is and the instrumentalization of humanitarian ideals operationalizes optimal violence to enforce order (Doel 2017, p. 19). As Doel (2017) states, "Optimal violence – optimized violence – is efficient and effective violence. It can be modulated and leveraged over time and space in a measured response to the ups and downs of the situation as it unfolds" (p. 19). This process of the pursuing of ethical clarity of optimal violence and calculating its efficacy is materialized in non-lethal weapons. In other words, non-lethal weapons are perfectly adapted to the logics of optimal violence. Therefore, in my analysis of source materials, I determine that humanitarian ideals of non-lethal state intervention become consequential to the geographies of non-lethal weapons in two significant ways:

1) As grounds for legitimacy, humanitarian ideals evoked in official and wider political discourses of non-lethal state intervention normalize violence against civilians as the spatial dimensions of a securitized humanitarianism co-opt moral invocations and ethical determinations of ordering and securing bodies and contested spaces. As such, non-lethal weapons sustain a "humane" and "ethical" sensibility stabilized by the global police-military-network that masks the intimate relations of optimal violence and power underpinning state intervention policy and practice.
2) Humanitarian ideals of non-lethal state intervention that emerge from master political/ideological framings of non-lethal weapons limit the responses of counter political/ideological framings to critique and challenge non-lethal weapon policy and practice by taking the so-called "moral high ground".

Fundamentally, humanitarian ideals confront the state's primary tenet of sovereignty—the right to kill—in the most immediate ways reframing how life and death are regulated by the state. Correspondingly, the normalization of humanitarian logics concerns the valuation of life which essentially shifts the state's ability to make life and death (Weizman 2012). I argue that the normalization of humanitarian ideals in non-lethal state intervention relies on the state's capacity to exercise its tenuous monopoly of violence delineating the modes and scales of optimal forms of violence. In doing so, the state gets to define what (optimal) 'legitimate' and (excessive) 'illegitimate' forms of violence look like

and involve. This process has significant implications for states' agency in controlling when, where, and how to use violence in contested space. Thus, the normalization of humanitarian ideals in non-lethal state intervention "allows the optimal quantity and quality of violence to be continually applied to sustain the desired objective indefinitely"—and this objective is securing contested spaces and disciplining bodies (Doel 2017, p. 19).

Determining the optimal quality of violence places moral principles and ethical appraisals of the worth of human life at the center of non-lethal state intervention. This process complicates analysis and discussion of non-lethal intervention as morals and ethics beget philosophical abstraction; whose morals and ethics and who gets to decide how these morals and ethics are understood and applied? For example, in official discourses and wider political discourses these questions are often considered through evoking the "moral high ground";

> "the United States can now announce and demonstrate to the world a new national policy of Nonlethality. [...] By doing so, we can take the *moral high ground* internationally and manage global change so that our far flung interests are protected" (Morris 2009, p. 2, emphasis added).
>
> "Moreover, they [non-lethal weapons] are essential to maintaining the *moral high ground* in an otherwise chaotic and strife-ridden world" (Herbert 1999, p. 88, emphasis added)
>
> "Winning in this environment is about seizing and holding the *moral high ground*" (Kenny et. at. 2001, p. 31, emphasis added).

However, what or where is the moral high ground? How and by whom is it determined? Once there (if it is a place) what does it mean? I cannot answer these questions and I do not believe anyone can, but critically thinking about these questions I acknowledge the ways the state abstracts their capacity to define and exercise optimal violence. Invocations of moral discourses functions to stabilize non-lethality in security whereby ethical and humane ways to wage violence through non-lethal weapons become depoliticized and consequently justifiable and acceptable.

To further unpack the normalization of humanitarian ideals in non-lethal state interventions, it is worth revisiting the conventional definition of non-lethal weapons. As stated in Chapter 1, non-lethal weapons are a class of weapons, devices, and munitions explicitly designed and *intended* to incapacitate targeted persons or materials without death or permanent injury/significant and/or to disable equipment

with minimal damage to the surrounding environment (Davidson 2009; DoD 2013, emphasis added). The definition highlights the intent of non-lethal weapons' design and deployment over their effects. The intentionality of violence is modulated through the convergence of security/military and humanitarian ideals whereby non-lethal weapons both embody and enact optimal violence. This allows political/ideological master frames to argue that non-lethal weapons are necessary to "save lives", a refrain repeatedly used in official and wider political discourses, because without non-lethal weapons in the use of force continuum the chances of death increases. Whether this is true or not is difficult to prove with limitations to current non-lethal weapons and use of force research. The actual violence of non-lethal weapons (optimally determined) and the effects of that violence are hidden by conceived benevolence of humanitarian ideals within political/ideological master frames. Overall, political/ideological master frames construct regimes of truth that frame non-lethal weapons and their destructive potentialities as morally justified and ethically acceptable because within the conceived binary of the (non-)lethal distinction the only other options are lethal weapons. However, as alternative political/ideological frames point out that is not entirely true; "Far from, 'restraining the application of means capable of causing death or injury to persons', certain items of equipment are inherently more injurious than others and increase, not decrease, the risk of injury" (Amnesty International 2015).

Challenging the normalization of humanitarian ideals in non-lethal state intervention is one of the most effective ways alternative political discourses contest the hegemony of political/ideological master frames. They expose that while humanitarian concerns for life enters the realm of philosophical abstraction, it is made concrete through the calibration, determination, and (uneven) practices of securing life and space through optimal violence. Accordingly, alternative political discourses point out that while humanitarian ideals set limits on state power and violence, they simultaneously solidify state control and power in making/taking life prioritizing security and order. This securitized co-optation of humanitarian logics is operationalized in the instrumentalization of humanitarian ideals whereby the valuation of life targets the body as an object that can be observed, measured, and acted upon violently as well as recognizes space as in need of a securitized order. The restoration of order becomes the primary way in

which the instrumentalization of humanitarian ideals serves to manage and discipline spaces and bodies in contested space.

The instrumentalization of humanitarian ideals operationalizes optimal violence to enforce order that aims to mitigate fearful and imaginative geographies of "insecure", "disordered", and "ungoverned" bodies and spaces (Gregory 2004; Mitchell 2010; McCormack 2018). These imaginative geographies—in the guise of popular security axioms—promote new forms of governmentality (technoscientific and humanitarian) and enact optimized forms of violence to take on the challenge of producing order. To clarify, "producing order" is by no means banal, but is deeply entrenched in the unremitting production of violence in everyday life that works to distinguish between "lives worth living and lives unworthy of life" (Tyner 2012, p. 36). Also, the practice of producing order in this context works to perpetuate space as void and/or simply a backdrop not an active medium through which social and spatial relations are (re)produced and transformed (Lefebvre 1991).

Expressly, securitized co-optation of humanitarian ideals transforms how optimal violence is enacted towards morally excluded bodies and in spaces conceived of as devoid of moral deference. The instrumentalization of humanitarian ideals orders morality and guards against insecurity structured by and through a normalized optimal violence of non-lethal state intervention. As a result, optimal state violence is difficult to delegitimize as meaningless and excessive; "State violence is being increasingly (popularly) approved of and institutionalized as a way of getting things done, or even as a way of bringing about justice" (Hornberger 2011, p. 178). Political/ideological master frames sustain non-lethal weapons at the center of this analysis. As grounds for legitimacy, securitized humanitarian ideals co-opt moral invocations and ethical determinations of ordering and securing bodies and contested space that is stabilized in official and wider political discourses of non-lethal state intervention. This practice normalizes and operationalizes optimal violence against bodies in contested space. As such, non-lethal weapons sustain a "humane" and "ethical" responsiveness stabilized by the global police-military-network. This essentially masks the intimate relations of optimal violence and power underpinning state

intervention policy and practice. A brief analysis of conducted energy devices/weapons (CEDs) will shed light on how humanitarian ideals in non-lethal intervention are materialized through non-lethal weapons.

CEDs, colloquially known as "TASERs" (manufactured by Axon formally TASER International), exemplify how intimate relations of optimal violence and power underpinning state intervention policy and practice are obscured within political/ideological master frames. CEDs have become one of the most visible non-lethal weapons in the U.S. and abroad. Within the U.S. alone, over 10,000 law-enforcement agencies have purchased TASERs and deploy them as integral capabilities in their use of force options in some capacity (White & Ready 2009). According to Axon, TASERs have been deployed in the field across the world 4,014,119 times with 99.75% of those deployments resulting in "no serious injury" claiming 216,762 "lives saved" (Axon 2019). The precision of these staggering claims is bolstered by a range of studies that "place the effectiveness rate of the TASER somewhere between 80% and 94%" (White & Ready 2009, p. 870). Effectiveness is defined in terms of intended physiological effect ending subject's resistance and the capacity to reduce the chances for injuries to subjects as well as the enforcers. While these numbers are reminiscent of my discussion of technical-tactical bias above and should be viewed with the deepest of suspicion, CEDs are sustained in official and wider political discourses as essential to "protecting" and "saving lives". In fact, Axon's motto for their law enforcement products and training is "We believe protecting life without taking life is a future within our grasp" (Axon 2019).

Official, wider, and even alternative political discourses continue to legitimize the deployment of CEDs in the use of force options as alternatives to lethal firearms and thus "represents a reasonable *medical* alternative to physical force (National Institute of Justice 2011), and could even save lives under certain circumstances" (Sousa et al. 2010). Importantly, I do not dismiss the research that indicates the "relative safety" of CEDs considering that TASERs have been deployed more than two million times in the U.S. alone (White & Ready 2007, 2010). However, I am concerned with the ways expertise of CEDs is highly limited and does not address greater embodied effects of CEDs particularly related to brain injury (see Kane & White 2016). I am even more concerned with the ways political/ideological frames are used to depoliticize discussions and debates of CEDs by perpetuating humanitarian ideals of their

deployment. To argue against their use is often viewed as arguing in favor of operationalizing the next often lethal stages in the continuum of force. CEDs are part of a complex and amorphous continuum of force and are often used in conjunction with other force options that ultimately can result in significant injury and death.

Regardless of the perceived "safety" of CEDs, upwards of 50,000-volts and 2.1mA currents of electricity is generated to incapacitate volitional control of one's body and creates short-term cognitive impairment such as "substantial reduction in auditory recall and abilities to assimilate new information through auditory processes" (Kane & White 2016, p. 79). The more political/ideological frames sustain CEDs and their conceived capacity to "save lives" the more entrenched in moral frameworks and ethical assessments they become limiting discussion and debate about the value of life; "The very idea of saving lives, for example, is dependent on counting lives" (Calhoun 2008, p. 82). Lives saved discourses as a significant part of humanitarian ideals are dependent on rendering diverse lived experiences, relations, and bodies amenable to injury (and death). How many lives does it take for CEDs to be considered lethal? How many significant injuries does it take for lives to no longer be saved? I do not have the answers to these questions but they are worth asking even if political/ideological frames make it difficult to do so.

My research contends that there is significant infrastructure within the global police-military-network that supports a securitized humanitarianism that reconfigures spatial and social ordering by working to delimit and moderate violence in contested space. This securitized co-optation of humanitarian logics and ideals allows for the justification of intervention and violence reframed as non-lethal that "entails a paradox as it necessarily undermines what it ostensibly asserts" (Zehfuss 2012, p. 874). Throughout source materials, the tension of this paradox and the contradictory demands of non-lethal weapons is a critical intersection of analytical inquiry. Building on this point, I argue that a securitized humanitarianism governs life through relations of (non-)lethality in contested space but also claims legitimacy to support the life of the state itself. Overall, non-lethal weapons are co-constitutive of

both the normalization and instrumentalization of humanitarian ideals in non-lethal state intervention that seek order through optimal violence.

**Order-Enforcement: Spatializing Political/Ideological Frames of Non-Lethal Weapons**

In this section, I examine the spatial effects and symbolic consequences of political/ideological frames of non-lethal weapons detailed above. I argue that the (potential) violent implications of non-lethal weapons are bound to a conceived rational commitment to enforcing order in the (re)production of space and society. To accomplish this, I advance the concept of *order-enforcement*. Order-enforcement is understood as a determined logic of coercion that aims to define the limits of security governance in contested space exploiting the (non-)lethal distinction and a spatial practice in exercising optimal violence to enforce order. Specifically, order enforcement works to quell and remove 'disorderly' and 'deviant' bodies and secure space based on the state's desired order whether it is economic, social, political, and spatial. The spatial arrangements determined by and through order-enforcement have significant consequences in relation to space-taking politics and non-lethal state intervention.

I contend that order-enforcement supports a growing rationality in which space is organized and bodies are disciplined through an optimized non-lethal violence materialized through non-lethal weapons. Drawing on my source materials, I propose that order-enforcement in contested space is characterized by three defining commitments (See table 5.3): 1) to link space-taking politics to geographically bounded "insecure", "disordered", and "ungoverned" space in need of stronger state intervention; 2) to disrupt and disperse crowds from contested space to make them more legible and therefore more governable; and 3) to preserve ordered space with increased invocation and implementation of security and surveillance to mitigate re-seizure of contested space.

*Table 5.3*

| Commitment | Characteristics | Practices |
|---|---|---|
| To link space-taking politics to geographically bounded "insecure", "disordered", and "ungoverned" space in need of stronger state intervention. | Marginalization<br>Exclusion<br>"Us" versus "Them" | Spatial politics of fear<br>Invoke "the Other" |
| To disrupt and disperse crowds from contested space to make | Invoke crowds and crowded places<br>Disruption | Tear gas<br>Non-lethal munitions |

| | | |
|---|---|---|
| them more legible and therefore more governable. | Displacement<br>Boundaries | Non-Lethal markers (paint munitions) |
| To preserve ordered space with increased invocation and implementation of security and surveillance to mitigate re-seizure of contested space. | Surveillance<br>Borders/(B)ordering<br>Increased visibility and legibility | CCTV Cameras<br>Checkpoints<br>Barriers<br>Increase security forces presence |

For the state to link space-taking politics to geographically bounded insecure, disordered, and ungoverned space in need of stronger state intervention, the state pathologizes space-taking politics. As space-taking politics intends to re-order, disrupt, and re-signify contested space challenging hegemonic norms and dominant systems of authority, the state's response aims to delegitimize their practice(s). The multiple ways the state pathologizes space-taking politics as threat to social, political, and spatial order is constitutive of a mix of social fear, moral conviction, and repressive threat association. These (micro-) geopolitical narratives assist in generating notions of fear and insecurity in perceived ungoverned space enacted among "deviant" bodies who occupy such space. The state's capacity to stimulate fear through dominant control and manipulation of social and political discourse muddles sensible debate and polarizes space-taking politics. Additionally, fear exercised in contested space delimits 'safe' space and marks bodies that 'belong' from those that do not:

> "fear is a term that is controlled via processes of legitimisation, exclusion and prescribed interpretation. It is a word which in wider political terms is licensed to those whose fears are 'legitimised' by dominant political and media structures. At the same time, it is denied to those in the ranks of 'deviant' or 'transgressive' (Shirlow & Pain 2003, p. 15).

The repressive and productive force of this calculus of biopower, a disciplining of bodies and regulation of population, informs a powerful "us" versus "them" dynamic (Foucault 2003). Like conventional understandings of geographies of exclusion "informed by the generalized other", practices of exclusion exercised to dissuade and render space-taking politics ineffectual in contested space relies on the fear-conditioned tropes of insecurity and disorder (Silbey 2002, p. 11). In other words, it constitutes a spatial politics of fear. Throughout contested space fear is politically constructed and spatially constituted to reinforce divisions between individuals, communities, and most importantly between the hegemonic power of the state and its political subjects. To reduce fear and secure contested space, the state pursues

interventionary strategies and practices whereby the state can test the thresholds of accountability, acceptability, and legitimacy of optimal violence(s). This politics of fear literally maps power relations informed by the state's desire for order and its capacity to exercise violence to ensure it. Moreover, actions taken to assuage imaginative geographies of fear are integral for understanding how violence is normalized and legitimized.

This state project marks the emergence of more nefarious processes of spatial control whereby order and security are satisfied through the normalization of fear and exclusion in contested space. This requires framing bodies as deviant and contested space as insecure, disordered, and ungoverned. As the state attempts to reconcile these challenges, social and spatial order is enforced by disciplining and controlling disordered bodies and contested space. Significantly, order-enforcement requires a substantial balancing act so that the fear constituted by state intervention and violence is less than the politics of fear ascribed to space-taking politics. It is important to point out that fear and exclusion in relation to space-taking politics in contested space is constructed in ways tempered by the (non)lethal distinction as significant injury and death do not serve the state's political interests (in most cases). Fear and exclusion in contested space makes stronger demands for state intervention which I argue facilitates non-lethal weapons stabilization within global police-military-network policy frameworks that shape state interventionary power in security and contested spaces.

I assert that the state's commitment to link space-taking politics to geographically bounded insecure, disordered, and ungoverned space is an inextricable linking of optimal state violence to the project of order-enforcement. Space-taking politics is a challenge to hegemonic control of space. It offers opportunities to alter contentious politics and space in innovative and imaginative ways through social and spatial interaction. Yet, the relations and interactions within space-taking politics has transformed as the proliferation of non-lethal intervention in contested spaces attempt to govern the unknowable and unpredictable to enforce order by disrupting and dispersing participants of space-taking politics. Non-lethal weapons are central to this practice as will be discussed below. Order-enforcement becomes a means by which the state normalizes its claim of legitimacy to intervene in contested space

and maintain security and stability. Put simply, spatial arrangements and patterns of a politics of fear and exclusion plays a central role in the state's practice of linking space-taking politics to ungoverned and insecure space.

The second defining commitment of order-enforcement is to disrupt and disperse 'crowds' from contested space to make them more legible and therefore more governable. Space-taking politics in contested space exemplifies the putative anxiety of security governance: disorder, unpredictability, and the "revolutionary potential of crowds" (Correia & Wall 2018). Therefore, the state exercises non-lethal intervention to disrupt and dislocate crowds from contested spaces. By highlighting the significance of the discursive forces of "the crowd", "crowd control" and "crowded spaces" and their material consequences with a brief examination of tear gas (CS gas, CR gas, CN gas, pepper spray, mace, etc.) below, I argue that the state normalizes these practices so that the use of non-lethal weapons has become banal and mundane practice in re-capturing and ordering contested space, except by those who experience them directly.

Building on Aradau's (2015) influential work on crowds and crowded spaces, I am concerned with how the state invokes "the crowd" in relation to space-taking politics as a discursive practice and spatial technique to make bodies more legible and contested space more governable. Thinking through crowds in this way affords an opportunity to understand how the crowd and crowded spaces recalibrates security governance and legitimates non-lethal intervention in contested space as dominant discourses advance generic representations of crowds. These generic representations invoke irrationality, fear, uncertainty, and violence as inherent to crowds and their behaviors.

Regardless of the diversity of participants of space-taking politics—their subjectivities, desires, attitudes, and goals—they are rendered into a monolithic entity – "the crowd" – by both master and counter frames across source materials. Controlling the crowd then becomes the primary goal of order-enforcement. Order-enforcement of crowds is colloquially known as "crowd-control" (or riot control), however this label is not sufficient to describe the actual practices enacted against crowds that have violent discursive and embodied consequences. The discourses of crowd control work to aestheticize a

range of security practices from emergency planning to counter terrorism that perpetually identify bodies as threats and space as insecure. This process facilitates a depoliticization of the technologies, (i.e., non-weapon systems) that are consequently labeled "crowd/riot control capabilities" used to enforce crowd control (read as order), often violently.

Throughout security discourse and practice, crowds are inherently imbued with violent potentiality regardless of context. This view perpetuates common stereotypes such as: crowds are homogenous entities—all participants are the same; crowd participants are unanimous in motives; crowds assume a sense of anonymity and; crowds are distinguished by violence (Kenny et al. 2001). Preserved by scholarship drawing on the work of Le Bon (1996 [1895]), Park (1930), and Blumer (1939) these stereotypes continue to proliferate in security discourses and practice (re)producing pathologizing imageries of irrationality and criminality. For example, throughout source materials, calls to identify 'crowd type' and the perpetuation of common crowd stereotypes reify dangerous interpretations and representations of space-taking politics (Kenny et al. 2001). However, scholarship and research on crowds and crowded places across the social sciences have largely disproved these stereotypes (Kenny et al. 2001; Aradau 2015). Reducing the socio-political and spatial complexity of crowds, "[...] has depoliticizing effects, as crowds are either tamed through preparedness exercises and spatio-temporal ordering, or they are subordinated to the status quo of existing social relations" (Aradau 2015, p. 157). Significantly, dominant discourses of the crowd serve to devalue space-taking politics and its intended social, political, and spatial impacts.

Often space-taking politics aims to disrupt and challenge dominant authority and social norms, which is why the state works so hard to pathologize its processes and practices. Invoking the crowd becomes another discursive means by which order-enforcement is operationalized to dislocate deviant bodies and secure contested space in the name of security. Rather than conceptualizing crowds as a social process of spatial disorder as dominant discourses tend to do, I understand crowds as a spatial process of social order. I do not intend to ignore the actual violence and destruction enacted by participants in crowds in thinking through crowds in this way (e.g., the England Riots of 2011). I aim to critically

engage the diverse, dynamic, and open interpretations of crowds beyond violence inherently ascribed by dominant discourses. A more nuanced approach to understanding crowds considers how dominant discourses of the crowd activate non-lethal state interventions in contested space legitimized by political/ideological frames of non-lethal weapons.

The geographies of non-lethal weapons are integral to the order-enforcement of crowds and crowded spaces to disrupt space-taking politics and displace bodies from contested space. I argue that non-lethal weapons provide the state and security mechanisms the capabilities to enforce and produce order under the pretenses of a well-supported benevolence of crowd control that hides the dynamics of optimal violence. Controlling and dispersing crowds is one of the leading core capabilities embedded in current non-lethal weapon design and employment. The most relevant and significant example of this practice is the co-production, design, and deployment of lachrymator agents (a.k.a. tear gas) in contested space. Tear gas encompasses a range of chemical agents that are aerosolized solid compounds or evaporated liquid compounds (not actually gas) designed to irritate eyes, throat, noes, skin, and lungs with the intent to incapacitate and/or dislocate bodies from contested space. Moreover, tear gas provides an apt example of order-enforcement through non-lethal optimized violence.

Tear gas is one of the most well documented and understood examples of the blurring between policing/warfare and non-lethality/lethality and emerges from long-embattled historical trajectory of chemical weapons deploying extreme violence and death particularly in colonial pacification/subjugation and modern warfare (Feigenbaum 2017; de Larrinaga 2016). Historically, after World War I (WWI), the use of chemical weapons was viewed as abhorrent (unless used against the colonial "Other") and the 1925 Geneva Gas Protocol and 1993 follow-up banned their use in warfare. However, the convention permits the use of tear gas for "law enforcement including domestic riot control purposes" (Quoted in Correia & Wall 2018, loc. 407). In other words, chemical weapons are viewed as illegitimate for military purposes but as legitimate for policing and security to keep order domestically against crowds. The use of tear gas to disrupt space-taking politics and incapacitate and dislocate bodies from contested space has become a "routine global phenomenon and the rationalities behind its deployment and use are considered as

indisputable" (de Larrinaga 2016, p. 524). Tear gas has fundamentally changed the dynamics of policing contested bodies and space as it produces and enforces order by shifting frames of visibility.

The spatial practices of containment and distance become essential to the deployment of tear gas as its effects are dependent upon the ventilation conditions of the built environment, exposure time, distance of point of origin, environmental conditions, etc., which impact the visibility of contested space and optimal violence practiced in ordering space and dislocating bodies. On one hand, tear gas severely limits visibility from a distance. From a distance tear gas envelops contested space in a shroud of opaque cloud like matter mitigating visibility of the practices transpiring in contested space, whether by space-taking participants or security forces. Often participants emerge covering their faces and coughing but appear to not be injured significantly or in pain. On the other hand, direct proximity to tear gas limits visibility in an embodied way by irritating eyes making it difficult to see (among other things). The embodied effects of tear gas are in fact quite painful, including severe burns and blistering of the skin at close range, and can lead to significant injury and in some cases death from both the pressurized grenade launches which act as blunt-force projectiles (blunt-force trauma) and the tear gas itself (pulmonary damage and permanent blinding). So, while the deployment of tear gas appears to be humane and less lethal than alternatives in the continuum of force tear gas produces and enforces order through optimized violence.

Overall, the state and security mechanisms invoke "the crowd" to connect unpredictability and uncertainty to order, violence to visibility, and non-lethal weapons to order-enforcement. Throughout these processes states and security mechanisms build the legitimacy to intervene in contested space exercising non-lethal optimal violence materialized through the use of non-lethal weapons. The end results of this commitment of order-enforcement generally results in the complete dispersal and dislocation of space-taking politics and the seizure of contested space by the state and security forces.

The final commitment of order-enforcement is to preserve ordered space with increased invocation and implementation of security and surveillance to mitigate re-seizure of contested space. Drawing on the political geographies of surveillance (Klauswer 2013a), I argue that order-enforcement in

contested space is a driving force behind the current propagation and intensification of surveillance and monitoring of bodies and space that enhances their visibility and securitizes access. To preserve order of once contested space, the state pursues practices intended to increase the visibility of bodies in space and securitize space employing a technoscientific omniscient and omnipresent practice of order-enforcement. As Staples (2014) argues, "We seem to be entering a state of permanent visibility where our bodies and out behaviors are being monitored, tracked, or watched continuously, anonymously, and systematically" (p. 5). The systematic surveilling of bodies in space that has become routine in everyday life appropriates and produces space through techniques and practices of control and power (Klauswer 2013a). As an omnipresence that orders a securitized "sense-making in the everyday", surveillance has become normalized and legitimized across scales and space (Åhäll 2016, p. 155).

One of the primary goals of surveillance is to make bodies and spaces more legible as legibility provides the capacity for micro and macro spatial practices of dominant social order determined by the state to be enforced (Scott 1998). Over time the practices of surveillance have become vastly more sophisticated employing more complex practices of monitoring, counting, assessing, ordering, and disciplining. Beyond the common representation of video surveillance, like closed-circuit television (CCTV cameras), the wide and sweeping practices of surveillance, including DNA databases, biometric recognition, body indexes, RFID chips, electronic ticket systems, GPS, and other so-called location technologies, proliferates at an unprecedented rate with vast uncertainty. While generally considered to be a result or product of non-lethal state intervention, I conceptualize surveillance as part of the ongoing order-enforcement of contested space through non-lethal state intervention. The spatial logics of surveillance serve order-enforcement in two key contradictory and co-dependent ways.

First, surveillance reinforces the spatial practices of containment and exclusion by identifying bodies that are conceived as not to belong and restricting their access and dislocating them. These spatial practices and logics essentially serve to fix bodies and space based on securitized conceptualizations of "us" versus "them" through control and filtering techniques (Bauman 1998, 2000). This results in an uneven geography of access to space which always has the potential to evolve into contested space

through space-taking politics or other forms of spatial and social order disruption. Perhaps even more nefarious are the spatially articulated forms of internalized (self-)exclusion and bordering as a way for surveilling logics to manage and order space that reify security logics of threat and insecurity (Klauswer 2013b). The spatial logics of surveillance in this sense are repressive in the ways bodies are ordered, extending the capabilities of the state to intervene in space to discipline conceived deviant bodies and secure space.

Second, the spatial logics of surveillance promote greater mobilities and circulation flows although always ones moderated by forms of security governance. This productive view of surveillance wrestles with how to secure space while also providing quick access and mobility for those bodies conceived to belong. The demand for security and mobility increasingly bolsters surveillance and the legitimization of increased efforts to gather and analyze information by both individuals and the state. The interface of the increasingly repressive and productive spatial practices and logics of surveillance selects, encloses, and hierarchically manages and orders space (Klauswer 2013b). Moreover, these processes of selection and differentiation produce uneven social and spatial orders in space while trying to anticipate threats, risks, and insecurities.

Fundamentally, violence of the state is the violence of building and enforcing order. Non-lethal interventions' primary function is to restore order to the conceived disorderly scenes of contested space. The (re)production of space is a *process* that is "always in a constant state of flux between those who seek to deprive it and those who seek to expand it" (Springer 2015, p. 6). As space-taking politics attempts to expand the (re)production of space through alternative means the state seeks to deprive it through securitized norms. Non-lethal weapons produce order under the pretenses of justifiable order-enforcement without appearing to cause significant injury or death and in doing so produces uneven social and spatial orders. Non-lethal state interventions weaponize non-lethality to intimidate, to coerce, to discipline, to exact pain and suffering, and in some cases to kill. The geographies of non-lethal state intervention encompass heterogeneous practices of order-enforcement that stabilize non-lethal weapons in

global police-military-network frameworks and changes the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence.

**Chapter Conclusion: (Re)Politicizing Non-Lethal Weapons**

This analysis shows the significant socio-political and spatial consequences of depoliticizing non-lethal weapons and non-lethal state interventions. Analyzing the spatial practices, emergent forms of state power and violence, and discourses of (non)lethality and security within non-lethal state interventions opens new directions for the study of the geographies of non-lethal weapons. To re-politicize non-lethal weapons, it is essential to understand the embeddedness of technical-tactical biases in technoscientific expertise and the entrenched nature of political/ideological framing of non-lethal weapons as thoroughly political *and* spatial. The discursive structures perpetuated by technoscientific and political/ideological frames of non-lethal weapons illustrate that the complex co-production of security, technoscience, and (non)lethality is vast, multiple, competing, and often contradictory while the 'security realities' they produce are actually quite stable. Significantly, these security realities are embodied as the optimal violence determined is enacted on the actual bodies whose bones can break, skin can tear, and whose blood can be spilled.

Uneven geographies of power and violence lie at the intersection of security, (non-)lethality, and technoscience as evidenced in the knowledge co-production and deployment of non-lethal weapons in contested space. The ways non-lethal weapons are conceived in security through technoscientific and political/ideological master and counter-frames is inseparable in how they are enacted in practice and embodied in everyday life, the contingency and indeterminacy of which directly relates to understanding diverse life-chances and unequal access to and in contested space. Non-lethality in security prioritizes the state's tenet of sovereignty to make of life in lieu of its primary tenant of taking life but does so unevenly and often violently. This analysis of the dynamics of technoscientific and political/ideological framing and counter-framing of non-lethal weapons is a useful means for understanding how modern state security frameworks are imbued with legitimacy and accountability to intervene in contested space, often with violent and deadly results.

My analysis focuses on technoscientific and political/ideological frames of non-lethal and their spatial representations, materialities, and consequences to illuminate the conceptual and material intersections between the geopolitical and the intimate, state power and space-taking politics, and state violence and everyday life. Whether it was the pro-democracy demonstrations in Hong Kong, Moscow, and Khartoum, or the anti-capitalist Yellow Vest protests across France, the study of the geographies of non-lethal weapons advances the ways we understand policing bodies and spaces that produce uneven spatial and social relations. Investigating the complex co-production of (non-)lethality, security, and technoscience informs spatial understandings of how these relations are disputed, negotiated, and reworked by promoting more nuanced methods of understanding political violence and spatial relations in contested space.

## Chapter 6 Case Study: Transformative Non-Lethal Technologies and Political Violence in Bangkok, Thailand

### Introduction

This chapter grounds my analysis from Chapter 5 with an empirical case study in Bangkok, Thailand. In Bangkok, the legitimization of non-lethal weapons in security governance stabilizes the false binary logic of the (non-)lethal distinction. The current Thai military junta has successfully manipulated this false binary logic to exercise violence to quell political and social dissent in the name of order and security. I explore the ways the Thai security apparatus perpetuate ethical assessments and technological assumptions about non-lethal weaponry stabilizing moral discourses and technical frameworks. These discourses and frameworks are generally conceived as unquestionable and unchallengeable by wider and alternative political discourses in order to depoliticize discussion and debate of non-lethal weapons deployment in contested space. I prioritize data from official policy documents and legislation and fieldwork (i.e., observation) to investigate the ways the Thai security apparatus stabilize technoscientific and ideological discourses of non-lethal intervention in the exercise of optimal violence and order-enforcement across Bangkok.

I believe that Bangkok serves as an ideal case study to examine non-lethal weapons and state interventionary power in contested space. The normalization and exercise of (non-)lethal intervention policy and practice in contested space in Bangkok is ongoing and indicative of current contentious space-taking politics across the globe. Bangkok offers a means of investigating the complexities and spatial imaginaries that inform technoscientific and political/ideological frames of non-lethal weapons that are assembled to legitimize and normalize optimal violence in contested space. I maintain that the ways the Thai security apparatus understand and operationalize (non-)lethality, technoscience, and security constitute a technoscientific governmentality in Bangkok that transforms the ways state optimal violence and security (re)shape state interventionary power and political subjectivity. As such, I aim to re-politicize the normalization and legitimacy of non-lethal state intervention in contested space and on-going order-enforcement across Bangkok. In practice, re-politicizing security realities of non-lethal

weapons requires problematizing the sites and conditions of Thai security expertise and authority and how they shape political arrangements of power. It is my contention that the policing of contested bodies and spaces across Bangkok is organized around spatially based coercive force and non-lethal violence that reveals the "representational heart" of Thai state-making and statecraft (Haanstaad 2013, p. 183).

This chapter is composed of four sections with multiple subsections. Following this introduction, I briefly detail the Thai security apparatus and its two core security forces, the Royal Thai Armed Forces (RTArF) and the Royal Thai Police (RTP). This context foregrounds a brief explanation of why I believe Bangkok serves as an ideal case study to examine the geographies of non-lethal weapons and state interventionary power. Subsequently, I discuss The Red Shirt Revolution (2010) and Operation Occupy Bangkok (2013-2014), two major events in Bangkok that underpin my research project, where state violence and power, space-taking politics, and (non-)lethal intervention intersect. Next, I examine the ways technoscientific and political/ideological frames of non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of Thai state interventionary power and violence. I accomplish this by demonstrating the ways the Thai security apparatus exercises threat assessment and order-enforcement in Bangkok to manage, discipline, and order contested bodies and space stabilizing non-lethal weapons in their security frameworks. In the final section, I discuss why this case study matters in making the case for the critical geographies of non-lethal weapons.

Overall, this case study illustrates the importance of my analysis in determining the ways non-lethal weaponry and security in Bangkok foregrounds experts who co-produce security knowledge and expertise that is exercised to depoliticize and perpetuate apolitical security realities of non-lethal state intervention. Also, this case study illustrates the ongoing political project of the National Council for Peace and Order's (NCPO) increasingly violent practices of threat assessment and order-enforcement of contested space across Bangkok to preserve state power. In other words, this case study affords an opportunity to examine how non-lethal weapons and non-lethal state intervention plays out in real life. To the extent that the overlap of non-lethal intervention and everyday life in Bangkok is a state project, I explore how policies and practices of non-lethal intervention are a result of two related factors: 1) As a

significant center of the global police-military-network, the Thai security apparatus has stabilized non-lethal weapons within their continuum of force as part of their order-enforcement project; and 2) Non-lethal weapons transform the dynamics of policing spaces and bodies in contested space in Bangkok shaping the use of Thai state interventionary power to secure contested spaces and bodies through new forms of optimal violence exercised to maintain legitimacy.

**Civil-Security Relations in Thailand and the Thai Security Apparatus**

In this section I examine the changing dynamics of civil-security relations in Thailand and identify and briefly discuss the Thai security apparatus' key players in state (non-)lethal intervention. This analysis provides the foundation for why I believe Bangkok serves as an ideal case study to explore geographies of non-lethal weapons. Thailand's civil-security relations are fraught with historical legacies of executive dominance and a present "authoritarian variant" whereby security dominates civil-security relations without being subject to controls and limits or accountability (Curley et al. 2018 p. 202). As the Thai security apparatus centralizes and consolidates power polarizing civil society actors in Thailand, traditional Western understandings of state power, (democratic) governance, and security are destabilized (Puangthong 2013). As such, civil-security relations in Thailand can be understood in the ways the Thai security apparatus governs emphasizing "Thai-style democracy" to sustain its political legitimacy.

First espoused by the authoritarian leader Field Marshal Sarit Thanarat in 1957, Thai-style democracy recognizes three key principles: plurality of democracy, suitability for Thai culture, and flexibility and adaptability (Lohatepanont 2018). The first principle acknowledges that democracy, as a system of governance, is pluralistic and needs not conform to traditional Western notions of democracy. This principle is important because various Thai leaders, elected or not, institutionalize different definitions of democracy to conform to their desired outcomes. Often this principle offers justification for the exclusion of democratic mechanisms to take shape in Thailand. For example, in Thailand it is common that democratic elections are viewed with suspicion and often overruled by the Thai security apparatus or other political institutions like the Constitutional Court of Thailand. While I was collecting data for this research project, the NCPO delayed elections to restore 'democratic' rule to Thailand five

times. The August 2017 constitutional referendum, which passed in a fairly democratic vote, called for a general election that would result in the dissolution of the NCPO once a cabinet was established. However, the NCPO argued that Thailand was "not ready" for general elections and held onto their sweeping powers for another three years. General elections occurred on March 24, 2019 and with the swearing in of the 'new' government, still under the control of the coup-maker and Prime Minister Prayut Chan-o-Cha, the NCPO officially dissolved on July 16, 2019. Though the NCPO has officially dissolved, in practice, the NCPO has institutionalized itself within all areas of the Thai government the current manifestation of the NCPO continues to rule the Thai state.

The second principle of Thai style democracy emphasizes a conservative national identity recognizing 'Thai-ness' (*kwarm pen thai*) as a significant component to Thailand's systems of governance. Thai political culture relies on the core values of unity (*kwarm samkee*) and order (*kwarm riebroi*). Thai peoples are considered subjects of the Kingdom rather than citizens and therefore must obey and render their loyalty to the Thai trinity— king (*phra mahakasat*), nation (*chat*), and religion (*sasana*) (Tongchai 1994; Hewison & Kitirianglarp 2010; Sombatpoonsiri 2017). Disrespect for authority and open disagreement are treated with very little tolerance in Thailand both legally and socially. The Thai security apparatus holds the primary principle that the Thai state can only survive if unity and order of the trinity is maintained. This accounts for the interventionist nature of the Thai security apparatus often intervening to restore unity and order. Throughout this research, the NCPO has (re)activated and co-opted hyper Thai nationalist sentiment institutionalizing the Thai trinity as an "inviolable state ideology" (Dressel 2018, p. 268). The ideological manipulation of the Thai trinity by the NCPO worked to delegitimize political and social dissent. Moreover, the NCPO's successful linking of national unity and national security (i.e., order) has proven to be a highly durable practice to claim political legitimacy and consolidate state power. While I was conducting my research, several hundred activists, dissidents, and everyday regime critics have been called "national security threats" or "un-Thai" and face serious criminal charges such as sedition, computer-related crimes, and lèse-majeté for expressing their views as the right to assembly, freedom of expression, and press freedom are revoked. The NCPO argues that the

deterioration of civil liberties and human rights in Thailand is a result of the need to fundamentally change the direction of Thailand's trajectory as a country towards more unity and order. As current Prime Minister Pryauth (2015) exclaimed, "To those who say we lost our democracy, I'd say I am sorry, but we cannot afford to waste time we have to change our country."

Finally, Thai-style democracy is flexible and adaptable to a range of situations so that it can be employed to fit the needs of the political climate and the state-making projects of the regime in control. For example, current Prime Minister Prayut exclaimed, "Our country cannot afford any more conflicts. We certainly need to have a democracy. But it must be a *Thai-niyuom* democracy—that is, a Thai-style democracy" (Prime Minister Pryauth 2018). The NCPO's primary goal in invoking Thai-style democracy is to legitimize their military-political unit's ascension to power after their military coup in 2014 and their subsequent legitimization under constitutional referendum in August 2017. What is clear is the ongoing political project of the NCPO generates a reconfiguration of the social and spatial organization of Thai society as Thai society is gradually being exposed to the blurring of civilian-security relations and experiencing greater forms of political violence. Overall, Thai-style democracy perpetuates an adaptive Thai nationalist political system underpinned by the arbitrary use of state power and violence exercised by the Thai security apparatus to secure unity and order.

Thailand's security apparatus is diverse and encompasses a wide range of state and non-state actors and institutions that invariably shift as civil-security relations continually change over time and space. Civil-security relations broadly defined here recognize the various interactions between security and civilian actors related to the power to make and enact political decisions (Croissant et al. 2013; Chambers 2015). I consider how the relations of expertise and authority are deliberated and used to legitimize the power to make and enact political decisions as key components to understandings civil-security relations. As such, there is significant blurring between the actors, roles, and responsibilities of the various parts of the Thai security apparatus particularly as the core security forces (see below) extend their legitimized state power. Preeminent Thai security scholar Paul Chambers (2015) identifies and categorizes six principle parts of the Thai security apparatus:

1) Core security forces: The Royal Thai Armed Forces (RTArF), the Royal Thai Police (RTP), and three key paramilitaries (The Rangers, the Border Patrol Police, and Volunteers).
2) Executive management actors: Officially command and oversee the core security forces. This includes the Prime Minister's Office, Internal Security Operations Command (ISOC), the National Security Council (NSC), and the National Intelligence Agency.
3) Legislative actors: The upper and lower house parliamentary committees who are tasked with monitoring the military and police as well as security policy originating from executive management actors.
4) Financial actors: The Finance Ministry and The Bureau of the Budget, which implements funding policies for security forces.
5) Judicial and oversight actors: These are legally responsible for judicial responsibilities relating to Thailand's security apparatus, like the Constitutional Court of Thailand.
6) Civil society organizations: These are like Thai political parties, who translate various positions of the security apparatus in public and policy discourse (pp. 5-8).

Though each of these six parts plays an important role in the Thai security apparatus, the primary focus of this case study is the core security forces, particularly the RTArF and RTP. I focus on both the RTArF and RTP (which I subsequently refer to as "Thai security forces") because they are the dominant institutions of the Thai security apparatus as well as the Thai state currently and were well established before other principle parts of the Thai security apparatus. Also, even though they are distinct security institutions, the blurring of personnel, roles, and policy and practice is significant. While both claim to be neutral and apolitical regarding Thai politics, like most scholars of Thai politics, I maintain that they are significant political actors with substantial interests in gaining and sustaining power in Thailand, particularly since the 2014 military coup. Moreover, Thai security forces' powers are rarely checked largely because of their willingness to exercise violence to capture and maintain political power often at the expense of democratization and Thai civil society. The current state-making project of the NCPO has allowed Thai security forces to erode commitments to tempering the arbitrary use of state power and violence and mitigating the capacity of civil-society to thrive. While Thailand's security forces are considered one of the strongest in Southeast Asia, each has experienced legitimacy crises because of "human rights abuses, lack of transparency and accountability, corruption, insulation from elected civilian control, and inefficacity" (Chambers 2018, p.5).

However, maintaining legitimacy for their governing regime is of significant concern to the NCPO. Thus, within the last decade Thai security forces have undergone noteworthy changes, because

ultimately they, particularly the RTArF, understand their role as the dominant Thai state builder. Brief discussions of the RTArF and RTP in the following subsections provide insight into the relations of Thai security expertise that shape the ongoing threat assessment and order-enforcement in Bangkok.

***Thai Security Forces: The Royal Thai Armed Forces***

The Thai military has evolved into a powerful, interventionist, and ideologically motivated security institution that currently controls the Thai state. Over the past eight decades, the RTArF has become the primary obstacle for consolidating democratization in Thailand, staging 13 successful coups (with over 30 attempts), removing several democratically elected and appointed governments (Chambers 2015). It is averse to civilian control as it believes it is too powerful and over time has ensured its legitimacy to maintain its growing power outside of civilian oversight demonstrating its capacity to enact various forms of political violence. Also, as Sripokangkul & Chambers (2017) argue, "military leadership believes that they have the expertise to apply their military structure to politics and economics, and are the most competent administrators" (p. 3). In other words, RTArF leadership believes it is the best institution to govern Thailand. Aligned with traditional Thai power elites and the monarchy, the RTArF wields its considerable power to protect the traditional Thai power structure and is known to be "unaccountable, untouchable, and uncontrollable" (Sripokangkul & Chambers 2017, p. 3).

Despite conventional understandings of militaries as securing against external threats, the Thai military is primarily focused on internal security. First and foremost, Thai military ideology rationalizes an interventionist agenda to protect the Thai state and the monarchy (Rakson 2010; Sripokangkul & Chambers 2017; Chambers 2018). Since its establishment in 1870, the Thai military primarily works to ensure internal security under the control of a central kingship (Isarapakdi 1989). Even though the Thai military ended absolute monarchical rule in a 1932 coup that founded the modern state of Thailand, the monarchy returned to a powerful position of influence both ideologically and politically in 1957 under military dictator General Sarit Thanarat. Throughout the next three decades the military and monarchy established a formidable alliance that formed the foundation of the principle role of the military today. As protectors of the palace (and protected by the palace), the Thai military achieved a significant level of

legitimacy that allowed it to flourish with little interference from civilian oversight and conference. Often referred to as a "monarchised military" the Thai military collaborates with the monarchy to dominate the Thai state increasing their political and economic interests (Chambers & Waitoolkiat 2016, p. 426).

However, the Thai military and monarchy (to a lesser extent because of the Thai trinity) are not infallible although they project otherwise. The military suffered a significant loss of legitimacy following the 1992 Black May Massacre when military forces violently clashed with pro-democracy demonstrators following yet another monarchised military backed coup. The incident left dozens of dead, hundreds injured, and resulted in over 3,500 arrests and shifted popular support towards a growing democracy and civilian control movement in Thailand (Chambers & Waitoolkiat 2016). Thailand witnessed a growth in civil society participation in politics including the drafting and enactment of the 1997 "People's" constitution as well as a retreat of the military from the public political sphere. Importantly, the military and monarchy retained significant political powers and wielded them behind the scenes of the discorded and unconsolidated civilian governments often intervening to establish order. Examples include "manoeuvres to change ruling coalitions in 1997, a coup in 2006, the ousting of a government and its replacement in 2008 and a coup in 2014 and rule by a junta after that" (Chambers & Waitoolkiat 2016). The final three interventions significantly enhanced the military's power and political legitimacy and set the contextual stage of this research (see next section). Overall, the symbiotic relationship between the Thai military and the monarchy bolsters legitimacy and reflects an ideological and practical way authority and power is understood and exercised across Thailand.

For the purposes of this research, the Thai military is the primary institution in developing and implementing the policy and practice of (non-)lethal intervention including the deployment of non-lethal weapons in contested Bangkok space. Since the military coup in 2014, Thailand has succumbed to full military rule and has successfully created a "military bureaucratic authoritarianism" in Thailand (Bamrungsuk 2015). As such, source materials collected related to the Thai military encompass a range of official texts from the NCPO, high ranked members of the Thai military, and military members occupying civil servant postings and emerge and stabilize as the master frames. I also collected a range

of wider and alternative political discourses that both maintain and contest the hegemony of the official Thai military master frames. My research contends that the ongoing threat assessment and order-enforcement of contested space in Bangkok is indicative of the Thai military's political domination of Thai politics and society.

***Thai Security Forces: Royal Thai Police***

The RTP are often overlooked in an analysis of core security forces in Thailand because of the power of the Thai military. However, as the political influence of the RTP changes over time and space, it is important to understand their role in Thai state intervention in contested space in Bangkok. The RTP has consolidated into a powerful force that vies for political power alongside and sometimes against the Thai military and is closely linked to Thai political and cultural life (Haastand 2008). The historical contexts of Thai policing are complex and intricate and center on displays of order and coercive force (See Suwanwecho 1996). As Haastand (2013) so succinctly puts it,

> "The Thai state and its police developed in conjunction with perceived threats to state order, where each new enemy or act of disorder justified further centralization, bureaucratization and state incursion. Within the context of these chaotic threats, the Thai police were central agents in the creation of state order (p. 89).

I focus on the role of the RTP in exercising optimal violence in threat assessment and order enforcement of contested space across Bangkok. The RTP is the principal player of the Thai security apparatus for the subversion of state power into everyday life (Haastand 2008, 2013; McCargo 2015). Unlike the Thai military, the policies and practices of the RTP are highly visible in everyday life, and as such their (political) legitimacy is consistently tested and contested. It should be noted that the RTP is considered to suffer from significant corruption practices as "Thai police policies and statutes, which allow, if not perpetuate, corruption within the Thai police force" continue to shape their power in ordering Thai society and space (McClincy 2012, p. 183).

The development and organization of the RTP over time have been significantly impacted by the strategic security relationship between the U.S. and Thailand. Since the early 1950s and with the start of the new U.S.-Thai security relationship, the RTP has significantly benefited from financial resources,

materials and equipment, and knowledge transfers in three distinct but not mutually exclusive security/policing eras. Throughout these eras, Thailand's police force increasingly militarized, a process that continues today. First, between 1950 and 1975 the U.S.'s primary objective was to combat the spread of communism to Thailand. The U.S. bolstered 'anti-communist' leaders, regardless of their anti-democratic practices, from both external and internal threats. Encouraging the suppression of communism led to an increasingly repressive and corrupt internal security and social control policy and practice exercised by the RTP. The RTP trained by the U.S. in counter-insurgency practices (often by the U.S. Central Intelligence Agency [CIA]) operated with impunity across Thailand and importantly grew in numbers that rivaled the Thai military. During this security/policing era, the RTP and RTArF grew increasingly suspicious of each other's political ambitions and struggled for political power. Ultimately, the RTArf dominated. As communist counter-insurgency practices ended in Thailand, the RTP was forced to adopt and integrate into "professionalized reform models" perpetuated by the U.S. and the West to defend its extremely violent practices throughout the era (Haanstad 2008, p.84).

This professionalization reform was subsequently followed by a security/policing era in Thailand that focused on integrating the RTP into the "international law enforcement community" where homogenization of operational parameters and conformity to Western policing institutions emerged through the international, so-called "War on Drugs". Similar to suppressing the communist threat to and in Thailand, U.S.-Thai security relations focused on providing assistance to the RTP to overwhelm the illicit use, exchange, and transnational movement of drugs. In fact, during 1973-1981, under the U.S.'s International Narcotics Control Program, the RTP received more assistance than any other country except for Burma, Mexico, and Colombia. It also hosted the largest contingent of U.S Drug Enforcement Administration (DEA) Agents outside the U.S. (Haanstad 2008). As part of an over billion dollar U.S. assistance package following the Thai financial crisis of 1997, an International Law Enforcement Academy (ILEA) was established in Bangkok to continue training in drug eradication efforts (among other transnational crimes). The ILEA continue to play a significant role in integrating the RTP into the

global police-military-network today. Also, Thailand continues to serve as a principle player in the "War on Drugs" today.

Finally, the RTP has significantly benefited from the U.S.-Thai security relationship in regard to financial assistance, materials and equipment, and knowledge transfers related to the so-called "Global War on Terror" (Haanstad 2008). As the U.S.'s principal strategic partner in Southeast Asia, Thailand serves as one of the most important allies in the war on terror. The RTP's role greatly expanded under Thailand's global police-military-network positioning in the war on terror security/policing era. On one hand, the RTP's "violent excess, unchecked governmental corruption, and security obsessions" emerging from their conceptualized role in the war on terror consolidated their power and influence under former Police Lieutenant Colonel and Prime Minister Taksin Shinawatra (Haanstad 2008, p. 8). On the other hand, the state violence of the RTP during this security/police era undermined the leadership of former Prime Minister Taksin as it was a primary reason for his removal from office by military coup in 2006. Overall, the principle objectives of the U.S. security/policing policy in Thailand have been to maintain regional stability, protect U.S. economic interests, and secure Thailand's commitment to U.S. security interests in the region and more broadly across the globe.

For the purposes of this project, the RTP is the primary everyday enforcer of non-lethal intervention, including the deployment of non-lethal weapons in contested Bangkok space. As such, source materials collected related to the RTP encompass a range of official texts from the RTP, like RTP policy statements, that serve the NCPO's master frames. Source materials were also collected relating to a range of wider and alternative political discourses that both maintain and contest the hegemony of the master frames. Challenging master frames serving to legitimize the expanding continuum of force is easier to do when aimed at the RTP versus the Thai military. As such, my research contends that the ongoing threat assessment and order enforcement of contested space in Bangkok implemented by the NCPO is enforced at the scale of the everyday by the RTP but is highly contested as Thai society continually questions the RTP's legitimacy.

Overall, I contend that the Thai security apparatus serves as an excellent example through which to understand how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence; and how non-lethal weapons are stabilized within global police-military-network policy frameworks that shape state interventionary power in security and contested spaces. I believe this argument holds true for three primary reasons. First, Bangkok holds a privileged position in the globalized police-military-network, serving as "central locus" for international security regimes in Southeast Asia, in particular, as part of a U.S.-Thai security cooperation regime (Haanstad 2013, p. 194). Second, as the social, cultural, and economic capital of Thailand, Bangkok is not only the center of Thai politics but also the center of space-taking politics and contested space. Third, the RTArF and RTP have a deep effect on wider Thai society, shaping the ways state power and violence create socio-spatial relations across Thailand and across Southeast Asia more broadly.

Neocleous (2000) argues that "The history of police is the history of state power" but in Thailand's case, the histories of the Thai military and police are the *present* of state power (p. xi). The fundamental nature of Thai polity is underpinned by Thai security forces' increasingly violent control of the Thai state and their need to provide order. Thai-style democracy and its current sophisticated authoritarian variant deepens Thailand's institutionalization of security norms that render deviant bodies and contested spaces as threats to the Thai state and Thai unity in general. As such, the following sections details examples of space-taking politics that provide insight into the evolving policies and practices of (non-)lethal intervention in contested space in Bangkok.

**Bangkok's Space-Taking Politics**

In this section I examine the spatial-temporal relations of two significant mobilizations of space-taking politics across Bangkok: The Red Shirt Revolution 2010 and Operation Occupy Bangkok 2014. Contextually, while political unrest and violence can be traced to the rise of 'modern' Thailand with multiple transitions of power (again, 13 successful military coups since 1932) the temporal focus of this research encompasses the historical contexts and socio-political relations of unrest and violence stemming

from an over two-decade political crisis starting in 2006. While a full historical overview of Thailand's political crises is outside the purview of this dissertation (see Unger & Mahakanjana 2016), the Red Shirt Revolution in the Spring of 2010 and Operation Occupy Bangkok in January of 2014 publicize the putative anxiety of the Thai state: the unpredictable disorder of space-taking protest. They culminate in two apt and conflicting examples of the transformative violence of (non-)lethal interventionary power in contested space. On the one hand, the Red Shirt Revolution is an example of the Thai state wielding lethal violence against civilians participating in space-taking politics, with devastating results. On the other hand, Operation Occupy Bangkok serves as an example of the Thai state exercising non-lethal interventionary power to maintain their legitimacy and enforce order across Bangkok that continues today. During this period of political chaos and instability, the two most significant forces in Thailand became mass political movements and their space-taking politics and the Thai security apparatus. As I address in Chapter 4, my proximity to both these events have shaped the way I design, conduct, and write my research. The political and social climate in Bangkok has significantly changed throughout this research as Thai citizens' liberties have been eroded, political parties have ceased to function, mass demonstration has become illegal, censorship of the media is at all-time highs, and order-enforcement of space continues to rise.

The center of these space-taking political crises revolves around the controversial tenure of Prime Minister Taksin Shinawatra (2001-2006), who was removed by military coup and self-exiled after shifting power away from traditional power elites, an event that initiated the conflictual color-coded polarization of Thai society between two primary factions: The Yellow Shirts and the Red Shirts (Chachavalpongpun 2013). The Yellow Shirts submit their loyalty to the traditionalists of Thai power elite—the royal family, the military, senior government officials, and the wealthy business class. Their primary goal is to preserve social and political status quo whereby power remains firmly bound to Thai elites (known as the *armat*). More importantly though, the Yellow Shirts sustain these politics because they are first and foremost royalists believing the monarchy, an inviolable pillar of the Thai state, must be protected (Ferrara 2011; Dressel 2018). In contrast, the Red Shirts encompass a diverse range of Thai peoples

mostly from the lower and middle classes across Thailand who have not benefited as much from the status quo and radical development bringing increased capital flows into Thailand. The Red Shirts desire to shift political power away from Thai elites, bolster electoral democracy to contest the traditional elite domination of Thai politics, and to serve the underprivileged and marginalized peoples of Thailand (known as the *phrai*). The intense polarization of Thai society between the Red Shirts and the Yellow Shirts changed the political trajectory of Thailand for the foreseeable future with very real social and spatial consequences.

When I first started this project, the color-coded polarization of Thai society was still visibly significant, however, over the past five years the Red Shirt movement has suffered a significant slowdown in support due to a range of effects. First, the Red Shirts have incurred a relentless campaign to delegitimize their politics (and lives) by being labeled "systemic threats" by Thai elites who wield their power to enforce 'Yellow Shirt order' and eliminate the Red Shirt threat through legal means (use of force and law) and illegal means (intimidation, violence, and extrajudicial detainment and killings) (Chachavalpongpun 2013). Second, the Red Shirt movement encompasses a range of coalitions, pro-Thaksin, anti-elite, anti-monarchy, and pro-democracy, that all have different agendas and strategies preventing a unified movement organized enough to take political control in Thailand. Third, the NCPO's skillful manipulation of dominant nationalist discourses surrounding their coup in May 2014 and subsequent legitimization frames Red Shirt motives as destabilizing the Thai trinity thus questioning their "Thai-ness" which has significant social consequences in Thailand (Pasuk Phongpaichit & Baker 2002, p. 107). Finally, the death of King Bhumibol Adulyadej (Rama IX, 1946-2017) re-animated widespread popular support for the royal family thus making it dangerous, both legally under lèse-majeté laws and socially, to be associated with the anti-monarchy sentiments of some Red Shirts. As I conclude this project, the color-coded conflicts of Thai politics are less visible, but the polarization of Thai society endures as the NCPO continues to consolidate and centralize its power in increasingly authoritarian and violent ways.

***The Red Shirt Revolution***

The color-coded conflict and polarization of Thai society reached its zenith during the violence of the Red Shirt Revolution in 2010. The Red Shirt Revolution is considered one of the most transformative events in modern Thai history and continues to shape the social and political landscape of Thailand to this day. After the 2006 military coup, which removed Prime Minster Taksin (sympathetic to the Red Shirts) from office in an attempt to restore Thai elites to power, the coup-makers' hand-picked Abhisit Vejjajiva ascended to the post of Prime Minister. The Abhisit's administration systematically worked to delegitimize Red Shirt politics (and lives) to consolidate and centralized power and "imposed an array of repressive measures to maintain its illegitimate grip and quash the democratic movement" (Amsterdam & Peroff 2010, p. 2). For example, the Thai government restricted access to thousands of websites, blocked opposition news outlets, and charged a record number of people under lèse-majeté laws. In retaliation, Red Shirt coalitions took to the country side to bolster support against the more urban Yellow Shirt order being enforced. As the Red Shirts gained more notoriety and political momentum due to these repressive policies and practices, the Abhisit government continued to crack down more vehemently. On March 8, 2010, Nattawut Saikua, a Red Shirt opposition leader, announced intentions for a "great demonstration in Bangkok" emphasizing its peaceful purpose while a more radical coalition of Red Shirts, *Daeng Siam* (Red Siam) called for a "peaceful democratic revolution" (Taylor 2012). On March 12, 2010, over 100,000 Red Shirt protesters descended on Bangkok demanding new democratic elections and governance in an act of space-taking protest (Amsterdam & Peroff 2010). While 'revolution' was not defined, visuals emerging from Bangkok showed Red Shirt protesters establishing protest camps across key spaces in Bangkok (notably Lumphini Park and Ratchaprasong intersection) and aggressively fortifying their positions.

The world watched this space-taking politics that led close to a million Thai people into the streets across Bangkok and thousands more in other urban and rural areas across Thailand. The entire city of Bangkok not only served as a physically contested space but also served as a symbol of the contested nature of the Thai state. One month into the space-taking protests Prime Minster Abhisit declared a state of emergency and operationalized 67,000 military soldiers and 25,000 police officers to intervene with

violent and deadly force (Sripokangkul & Chambers 2017, p. 12). On April 10, the first violent intervention occurred as security forces attempted to remove Red Shirt occupiers at Phan Fa Bridge (an important thoroughfare) that resulted in the deaths of 27 civilians (Amsterdam & Peroff 2010). Over the next 42 days, violent clashes between Thai security forces and civilians, including so-called paramilitary units of the Red Shirts dressed in black (see Chachavalpongpun 2013), left at least 90 people dead, more than 2,000 injured, and over 50 (alleged) leaders of the Red Shirt Revolution charged with "terrorism" facing potential death sentences. In the aftermath, the Thai state perpetuated dominant security narratives supporting the extreme violence and lethal force exercised by security forces arguing the Red Shirt Revolution was a threat to national security, violent, and unlawful. Even as evidence amassed showing security forces using live-fire against peaceful protesters (among other violent crimes), the Thai state maintained that its operations were within accordance with "international standards" regarding the use of force. Now retired Army Chief Anupong Paochinda claimed, the military "never intended to harm people" (The Nation 2010). However, as Amsterdam & Peroff (2010) argue,

> "Contrary to the "international standards" the government is eager to invoke, its dispersal operations made little use of "non-lethal incapacitating weapons." No care whatsoever appears to have been taken to "minimize the risk of endangering uninvolved persons" and to "preserve human life" (p. 48).

While the official Thai state's investigation into the events of the Red Shirt Revolution did not find security forces in violation of Thai law or international law initially (the Bangkok Criminal Court opened an inquest in 2013 which was dismissed by a special military prosecutor), numerous independent investigations conducted by a range of organizations (i.e., Human Rights Watch 2011; The Truth for Reconciliation Commission of Thailand 2012; Thailand Research Fund 2011) determined that "The high death toll and injuries resulted from excessive and unnecessary lethal force on the part of security forces" (Human Rights Watch 2011, p. 5). In wider and alternative political discourses, the Thai security apparatus underwent a significant de-legitimization within Thailand as visuals and testimonies of security forces extreme violence circulated widely across Thailand through social media and first-hand accounts. Distrust of the Thai security apparatus is typically high as security forces are known for their corruption

practices, excessive use of force, and discretionary violence wielded with impunity but the violence of the Red Shirt Revolution significantly agitated the Thai populace (Haanstad 2013). In fact, when elections were held a year later, Yingluck Shinawatra (former Prime Minister Taksin's sister) led the Red Shirt-allied Pheu Thai Party to a landslide victory.

Overall, the Red Shirt Revolution exposed the Thai state's violent disposition towards deviant and transgressive bodies and politics. To dislocate bodies and secure contested space, the state exercised its sovereign right to kill without hesitation. The Red Shirts were identified as significant threats to the Thai state and people and their space-taking politics were linked to geographically bounded "insecure", "disordered", and "ungoverned" space in need of stronger state intervention. The "us" versus "them" dynamic between the Red Shirts and the Yellow Shirts constituted a politics of fear that allowed security forces to exercise violent and lethal force. The Thai state significantly surpassed the thresholds of accountability, acceptability, and legitimacy of their capacity to exercise violence using lethal force in comparison to international standards (Amsterdam & Peroff 2010). To re-build legitimacy and better policing capacity, Thailand hosted and participated in the Non-Lethal Weapons Executive Seminar (NOLES) in 2011, a multilateral security cooperation event for non-lethal weapons operated by U.S. Marine Corps Forces Pacific. During the event, Thai security forces underwent non-lethal weapons training and were given classes and practical application sessions on communication skills and security intervention dynamics. Also, there were significant efforts to restructure how Thai security forces engage in interventions in contested space (Sombatpoonsiri 2017). I argue that this capacity building project was part of an effort to change the ways the Thai security apparatus intervenes in contested space exercising optimal violence at the encouragement of the international community, as will be discussed later in this chapter.

***Operation Occupy Bangkok***

Two years later, Thailand collapsed into another political crisis as the Red Shirt- backed Prime Minister Yingluck's political party proposed an Amnesty Bill that would allow former Prime Minister Thaksin to return to Thailand and provide blanket amnesty for events of the Red Shirt Revolution. This

event sparked outrage among Yellow Shirt supporters (and some Red Shirts), who mobilized at the end of 2013 mimicking the same space-taking politics employed by the Red Shirts in 2010 (Thongchai 2014). To force the Pheu Thai Party out of power, Yellow Shirt protesters occupied key spaces in Bangkok in an effort to paralyze Bangkok's governability. The start of this political crisis re-publicized the putative anxiety of the Thai state: the unpredictable disorder of space-taking protest. Moreover, the nature of the Thai governing system was at stake as the Yellow Shirt coalition were united around the "common goal of toppling Yingkluck and the rejection of majoritarian democracy" (Kongkirati 2016, p. 474). Violent clashes between Yellow Shirt and Red Shirt factions destabilized Bangkok in November with little interference from Thai security forces. The RTP and RTArF were reticent to intervene as both had significant ties to opposing sides. In the end, the RTP were the primary Thai security force to intervene in contested space during and the RTArF remained "neutral" and thus maintained its legitimacy.

On December 1, Yellow Shirt protesters violently forced their way into the Metropolitan Police Headquarters and Government House directly confronting the RTP. After two days of violent clashes with protesters, the RTP removed barricades and themselves to allow protesters to occupy the Government House (*Post Today* 2013). This move by the RTP indicated a shift in security force responses to space-taking politics in Bangkok from more repressive and violent approaches to more accommodating and noninterventionist approaches (Sombatpoonsiri 2017). As a result of this shift in Thai security forces' policy and practice, Prime Minister Yingluck was forced to dissolve parliament and call for new elections to be held in February. In other words, the government collapsed. However, rather than diffuse the situation, the call for new elections fueled the Yellow Shirt space-taking politics as they knew that democratic elections would not result in their favor as a small but extremely powerful political minority. Instead, they vowed to block the elections from happening and continue their space-taking protest across Bangkok and effectively shut the city down.

In January 2014, following weeks of fierce protests and demonstrations, "Operation Occupy Bangkok" drew tens of thousands of Thai civilians into the streets of Bangkok, effectively shutting down the city. This expansion of space-taking politics stressed the credibility and legitimacy of the Thai

security forces, in particular the RTP, as action to confront protesters would be viewed as supporting a perceived corrupt and delegitimized government and inaction could lead to extreme levels of violence. In fact, pre-election violence occurred in unprecedented levels across Thailand with attempted political assignations of key party leaders, bombings outside leaders' residences, and bombings within occupied protest spaces (Kongkriati 2016). As Kongkriati (2016) states,

> "The 2014 election saw the highest degree of violence in Thailand's history. According to statistics collected by the author from the day of the parliamentary dissolution on December 9, 2013 until the day the Constitutional Court invalidated the election on March 21, 2013, there were a total of 260 violent incidents, resulting in 30 deaths and 459 injuries" (p. 481).

Because of the extreme violence taking place, the Thai government declared an emergency decree in Bangkok and surrounding provinces. During this time, the RTP was forced into the uncomfortable position of attempting to maintain security and order while also trying very hard to not be too closely linked with the government which was becoming less legitimate by the day.

Elections in February escalated the violence, and election disruption was significant across the country particularly in the South (where the majority support the Red Shirts). A significantly lower-than-average voter turnout led to a constitutional crisis and the Constitutional Court of Thailand was asked to weigh in on the legitimacy of the election and its results. In the end, the February election results were not accepted and forced the Constitutional Court to invalidate the results on March 21, 2014. That action essentially validated the election violence, which continued to escalate. Without a fully functioning government, negotiations occurred over the next few weeks with ongoing space-taking politics drawing even more demonstrators from both the Yellow Shirt and Red Shirt camps. Eventually, in early May of 2014, the Constitutional Court ordered Prime Minister Yingluck out of office, and the Thai military seized power. The military coup officially occurred seamlessly on May 22, 2014. The NCPO was given assent by King Bhumibol under General Prayuth Chan-ocha as Prime Minister to rule by marital law and executive order.

Unlike the state-perpetrated violence of the Red Shirt Revolution, the Thai security apparatus showed inconceivable restraint with its intervention in contested space during the space-taking politics of

the 2013-2014 Thai political crisis (Sombatpoonsiri 2017). Operation Occupy Bangkok tested the Thai security apparatus in two significant ways. On one hand, Thai security apparatuses were expected to maintain security and order for the very government that mass mobilized space-taking politics was attempting to overthrow. This expectation strained the legitimacy and credibility of the Thai security forces, because any excessive violence against anti-government Yellow Shirt protesters would assist in validating claims of oppressive governance by Prime Minister Yingluck. Moreover, the RTP were criticized for being too close to the Taksin supporting regime. On the other hand, Thai security forces had a significant political stake in the outcome of Operation Occupy Bangkok. The Thai security apparatus is closely linked with the Yellow Shirt movement, although under Taksin the RTP flourished, and favored a return to traditional Thai elite rule. As Sombatpoonsiri (2017) states, "Ultimately, the Thai police [and military] were propelled to choose between two difficult choices: maintaining law and order or offending the 'great mass of people'" (p. 100).

Rather than attempting to restrict and repress Thai people's right to demonstrate like in the past, Thai security forces accepted the right to demonstration and viewed their operational procedures as merely intervening to protect lives during Operation Occupation Bangkok (Sombatpoonsiri 2017). Such shifts in policing/security policy and practice afforded a more "hands-off" approach when de-escalation could not be achieved and offensive action would lead to extreme violence. Overall, Thai security forces responses to the 2013-2014 space-taking politics indicates an engaged learning curve from their intervention during the 2010 Red Shirt Revolution whereby restructured crowd-control units exercised improved training methods and deployment of non-lethal weapons versus lethal weapons as well as implemented new institutionalized norms to de-escalate confrontation within contested space. While this shift is a significant improvement in comparison to the lethal violence employed in 2010, such changes are not sufficient to celebrate. Thai security forces and their new-found forms of non-lethal interventionary power significantly transform the state's ability to embrace optimal violence as part of its portfolio of security mechanisms where use of force is presented and practiced as a legitimate way of policing contested spaces and bodies.

**Threat Assessment and Order-Enforcement in Bangkok**

In this section, I demonstrate the ways the Thai security apparatus exercises threat assessment and order-enforcement in Bangkok invoking technoscientific and political/ideological frames of non-lethal weapons to manage, discipline, and order contested bodies and spaces in Bangkok. Also, I illustrate the ways they stabilize non-lethal weapons in their security frameworks and legitimize non-lethal state intervention. In other words, I examine how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of Thai state interventionary power and violence. The temporal focus of the following analysis starts with the political crisis in 2013-2014 (Operation Occupy Bangkok) and continues through my fieldwork in December 2015 and January 2016 in Bangkok. Examining specific examples of threat assessment and order-enforcement throughout this period exposes the ways the Thai state has successfully weaponized non-lethality in its on-going state-making project.

I argue that official discourses of the Thai state and its security apparatus institutionalize and normalize specific understandings of non-lethal weapons through technoscientific and political/ideological master frames to depoliticize their role in the state's monopoly of violence in the use of force against civilians in Bangkok's contested spaces. Drawing on my source materials, the Thai state and security apparatus operationalized the following key official texts (Table 6.1) to transform the ways bodies and spaces are disciplined and ordered across Bangkok:

*Table 6.1*

| **Official Policy Text** | **Characteristics** |
|---|---|
| The Internal Security Act (ISA) | Provides the Internal Security Operations Command (ISOC), headed by the Prime Minister, powers to monitor, investigate, and evaluate information related to internal security. Also, significantly impacts the right to public assembly. |
| Emergency Decree (January 2014) | Allows Prime Minister to declare an emergency situation that grants significant powers to limit civil liberties. |
| Martial Law Act of 1914 | Permits both the King and Thai military to declare martial law in times of war or unrest, granting sweeping powers to restrict Thai citizens' rights. |

| | |
|---|---|
| Section 28 of the 2017 Constitution | Prohibits "torture, brutal acts or punishment by cruel or inhumane means". Also, protects vulnerable peoples from violence or unfair treatment. |
| Section 44 of the 2017 Constitution | Provides the "liberty to assemble peacefully and without arms" but stipulates restrictions "for the purpose of maintaining security of the State, public safety, public order or good morals, or for protecting the rights or liberties of other persons". |
| Draft National Police Act (2018) | Currently out for consultation the Draft National Police Act (2018) does not address police use of force against Thai peoples but does empower the RTP to use "reasonable" force during arrest. |

These master frames co-produced with other official discourses (i.e., statements, policy briefs, reports etc.) perpetuate technoscientific logics and expertise, like institutionalizing technical-tactical biases in classificatory schema, and humanitarian ideals of non-lethal weapons to bolster support for their non-lethal interventions across Bangkok. Thai security forces depoliticized non-lethal weapons (although not entirely successfully with the use of tear gas) by arguing that as strategic "tools", non-lethal weapons are used to counter the excessive lethal violence experienced during the 2010 Red Shirt Revolution. Maintaining the humanitarian ideals' narrative worked to the Thai security forces' benefit. For example, it was ordered that all police and military personnel exercise the "utmost restraint" in dealing with protesters to avoid exercise violence charges (Sombatpoonsiri 2017). At times, Thai security forces withdrew from key contested spaces or allowed demonstrators to capture contested space claiming that confrontation would lead to further violence which was not within the operational parameters of the Thai security forces (Matichon 2014). This was obviously a significant policy reversal from the operational parameters of Thai security forces during the Red Shirt Revolution. Moreover, the materiality, embodiment, and practices of these (micro-) geopolitical discourses co-produce spatial arrangements of power whereby optimal violence is exercised by the state to enforce order in contested space at the detriment of space-taking politics as it attempts to disrupt dominant spatial arrangements of power.

I contend that the Thai state's co-production of "threats" and deployment of security to enforce order is dependent upon a technoscientific paradigm of threat assessment and scalable capabilities to address threats, materialized through non-lethal weapons through the spatial practices of containment and

distance. These spatial arrangements engaged by Thai security forces in contested space legitimize state interventionary power and violence while also preserving their own legitimacy. Rather than enact direct, confrontational tactics like what was exercised during the deadly Red Shirt Revolution, Thai security forces enacted a more hands-off approach employing the spatial tactics and practices of containment and distance. As such, a more nuanced examination of Thai security forces' spatial strategies within contested space during the 2013-2014 space-taking politics indicates an escalation of force practice deploying non-lethal weapons to protect and control key spaces across Bangkok. The spatial tactics and practices of containment and distance played a significant role in the threat assessment of Yellow Shirt demonstrators and the justification to exercise the use of force by Thai security forces during the 2013-2014 space-taking politics. Thai security forces had a sophisticated practice to categorize demonstrators as threats and security risks, making those demonstrators amenable to violent intervention to contain their mobility and the seizure of contested space. Non-lethal weapons were vital to these spatial tactics and practices of dislocating bodies and securing space.

Across the city, Thai security forces identified key government sites, like the Government House, and security infrastructure spaces, like the Metropolitan Police Headquarters, to protect and maintain control during the political crisis. Once identified, they constructed a series of three containment barricade zones with significant distance between each barricade (Sombatpoonsiri 2017). Barricades served as a threshold for which the continuum of force could progress towards lethal violence once crossed as each zone indicated a higher threat assessment level. Once demonstrators crossed the first barricade into zone one, negotiations and tactical communication was employed to de-escalate. This first containment zone was the easiest to breach and occupy for demonstrators as no force was applied only coercive communication techniques. If demonstrators moved forward and crossed the second barricade into zone two, tactical deployment of non-lethal weapons, mostly tear gas and water cannons, was exercised to disperse the oncoming Yellow Shirt "crowd" of demonstrators and control visibility. The use of these medium to long range non-lethal weapons aimed to keep distance between Thai security forces and demonstrators to reduce the chances of significant injury occurring. However, as discussed in

Chapter 5, tear gas as well as other medium range non-lethal weapons are forms optimal violence that have significant injurious effects. Those who reached and passed the final barricade into zone three were met with rubber bullets and close range non-lethal weapons (i.e., batons). The intensity of violent confrontation in zone three evolved rapidly and in certain circumstances led to the use of lethal force (Matichon 2013). Containment and distance acts as a series of spatial practices and processes that operate through continuous spatial re-arrangements of coercive power, threat assessment, and violence that reshape state interventionary power across Bangkok. Accordingly, official discourses argued that the three barricades zones allowed more distance between demonstrators and security forces assisting to mitigate chance of violent confrontation and significant injury or death (Sombatpoonsiri 2017; Kongkirati 2016).

As I stated in Chapter 5, the operational parameters of non-lethal weapons have become essential to the spatial practices of containment and distance in rearranging contested space and reifying the legitimacy state power and violence. Non-lethal weapons were deployed by Thai security forces to discipline bodies and order contested space through conceived objective and neutral calculus of threat assessment as indicated by their spatial strategies of containment and distance (barricade zones). Moreover, the threat assessment calculus within contested space by Thai security forces reaffirmed the technoscientific framing of non-lethal weapons as they were operationalized as tools with technical and tactical design specifications, calibrations, and operational parameters that stabilizes the continuum of force and normalizes the valuation of bodies and metrics of (non-)lethality. Non-lethal weapons were deployed as solely technical solutions to the indeterminable political problem of the Yellow Shirt space-taking politics in contested space. In the process of their deployment, a depoliticizion of the actual violence that occurred emerged. As such, the deployment of non-lethal weapons reaffirmed non-lethal state intervention as benevolent, acceptable, and ultimately legitimate for Thai security forces during a time when their legitimacy was highly stressed.

I maintain that a technoscientific governance employed by the Thai state assists in working through the ways that non-lethal weapons produce certain forms of power and security that (re)shape state

interventionary power and political subjectivity during Operation Occupy Bangkok that continues today. The technoscientific logics and practices that underpin Thai threat assessments, exposed the spatial consequences of technical-tactical biases embedded in technoscientific frames and produced uneven geographies of violence in contested space across Bangkok. The increasing acceptability non-lethal state interventions in Thailand has allowed for a conceptually swollen continuum of force causing use of force option gaps and a growing number of non-lethal weapons designed to fill these conceived capability caps. This novel form of non-lethal state intervention in Bangkok has been colloquially referred to as "protective suppression" (*bongkan* brapram) (Haanstand 2012). Protective suppression is the foundation for order-enforcement in Bangkok that is on-going.

As I stated in Chapter 5, order-enforcement is a determined logic of coercion that aims to define the limits of security governance in contested space exploiting the (non-)lethal distinction and a spatial practice in exercising optimal violence to enforce order. Specifically, for my case study, it is operationalized by the NCPO to quell and remove 'disorderly' and 'deviant' bodies and secure space based on the Thai state's desired unity (*kwarm samkee*) and order (*kwarm riebroi*). At the beginning of my research, the NCPO was still in the process of consolidating and centralizing its power through hyper nationalist rhetoric and a national security underpinned by an increasing militarization of all areas of Thai society and space. The NCPO's efforts to legitimize its power through re-establishing national unity and ensuring national security operationalized an order-enforcement that significantly restrained Thai subjects' liberties.

First, the NCPO linked anti-coup and pro-Red Shirts' space-taking politics to geographically bounded "insecure", "disordered", and "ungoverned" space in need of stronger state intervention. Ruling by emergency decree and martial law established under the ISA the NCPO suspended the right to public assembly. Therefore, any attempts to participate in space-taking politics, a staple of Thai political expression, were met with significant state intervention. Framed through the lens of protecting national security, the NCPO removed the capacity for space-taking politics to materialize even though a significant proportion of Thai peoples were not in favor of the military coup. The NCPO manipulated

discourse to suggest that violent street clashes were leading Thailand towards civil war and to avoid chaos and the fall of Thailand space-taking politics cannot occur;

> "If there is still an election in this country, it will create conflicts, and the country will, again, experience the endless circle of conflicts, violence, politicians' corruption, terrorism and the use of war weaponry […] This is very dangerous, I have realized […] you can see what we (the government) have been trying to do here" (Royal Thai Government 2014).

The few instances post-coup where demonstrations did occur were met with overwhelming non-lethal interventionary force from Thai security forces which weakened the call for protest. In fact, the NCPO was so successful that previously contested space in Bangkok was avoided by Thai subjects out of fear of being associated with anti-NCPO sentiments. While in Bangkok during my fieldwork, it was clear that once highly contested spaces were far less so as the NCPO's interventionist power became so concrete. The NCPO effectively delegitimized the practice of space-taking protest by stimulating a politics of fear across Thailand. The NCPO needed to create unity and order and did so through their willingness to exercise non-lethal interventionary power. To enforce these new social and spatial restrictions, the NCPO constructed a robust system of checkpoints, police monitoring stations, and they deputized all RTArF members to carry out typical RTP functions. A specific example from my fieldwork will be discussed below.

Simultaneously, the NCPO worked to delegitimize counter-coup movements by labeling political opponents as "un-Thai" or "national security threats" creating a strong "us" versus "them" dynamic. This was especially significant as the NCPO initiated very public and intrusive investigations into Red Shirt leaders who could potentially challenge their ultimate authority. The NCPO used state run media to perpetuate dominant discourses which delegitimized Red Shirt politics and lives as well as indicated that social or political dissent would not be tolerated. The NCPO was unapologetic about its approach even as human rights groups and civil society organizations across the world raised concerns about their policies and practices: "Those accusing me of breaching human rights, they need to understand that we are operating in unusual circumstances" (Prime Minister Prayuth 2015). The NCPO sustained its political legitimacy and dominance through the reproduction of a co-opted Thai national identity, highlighting

order and harmony using protective suppression measures in two significant ways. First, the NCPO promised to bring back "happiness" and "national harmony" back to Thailand (Sombatpoonsiri 2017). For example, many festivals were organized which provided free food, goods, and entertainment to Thai peoples across the country but particularly in places that had high levels of discontent with the current regime. Second, Thai happiness was linked to the Thai trinity and this required "the removal of dispute and dissidence from public space," which is of most concern to this analysis (Sombatpoonsiri 2017, p. 141).

Correspondingly, the NCPO introduced two policies of order-enforcement, "attitude adjustment" and "reconciliation", to inhibit the potential for dissidence from "agitators" (Prachatai 2014). On the surface, attitude adjustment and reconciliation appears to sound benevolent. However, as policies of order-enforcement, a more in-depth examination exposes nefarious and violent practices to deter non-conformation to the social and spatial order of the NCPO. Implementing attitude adjustment and reconciliation relied on peer-to-peer policing but also on the range of legislation listed above (Table 6.1) to subject Thai peoples to intrusive state surveillance, intervention, and discipline in their everyday lives. Thai subjects were subject to detention and possible jail time for violations of these order-enforcement policies. For example, a Thai subject could be detained for seven days without a warrant under the terms of Martial Law for performing "poor attitude behaviors" (i.e., political dissent or opposition to the NCPO). For example, small protest activity across Bangkok was quickly stopped using overwhelming force and participants were swiftly detained. The NCPO forced detainees to sign a "document prohibiting their future participation in any political activity and/or requiring them to obtain permission from the army prior to traveling abroad" (Sombatpoonsiri 2017, p. 141; Prachatai 2015). In detention, detainees were often subject to threats, harassment, and alleged physical assaults. Also, potential identified threats to attitude adjustment were placed on "visit lists" and visited by security forces at their homes or offices for re-education (iLaw 2016). At the time of my fieldwork in December 2015 and January 2016, over 800 Thai subjects were in detainment.

Reconciliation programs throughout the country aimed to re-educate Thai subjects on Thai norms and targeted areas with strong Red Shirt support (Sripokangkul 2015). Invoking the Thai trinity, the NCPO worked to strengthen (re)indoctrination practices and devotion to Thai unity. A royal succession was imminent, and the NCPO took significant steps to shore up the legitimacy of the monarchy and in particular the heir-apparent and now King Maha Vajiralongkorn. NCPO leadership fundamentally believed that shifting and fragmented loyalties of the Thai people, a direct result of pluralistic Thai democracy, was the root cause of conflict. Therefore, the NCPO focused on (re)igniting and fortifying support for the monarchy using state media, recanalization programs, and aggressively increasing charges under the *lesè majstè* laws. Reconciliation programs heavily relied on nationalist discourses and history lessons which identify the king and RTArF as "saviors" of Thailand; "How was it that we kept a hold on our country and avoided being colonized by another country? It was because our king protected our nation" (*Issan Record* 2014). The success of reconciliation programs depended upon the area's complete cooperation with the NCPO's educators and, ultimately, complete subjugation to NCPO politics. Overall, these two polices of order-enforcement linked dissent and opposition to insecurity and instability and attempted to make Thai subjects more legible and therefore more governable.

While in Bangkok, I was surprised to discover how quickly the NCPO implemented these order-enforcement policies to mitigate the revival of space-taking politics. At the time of my preparation to go to Bangkok for my field work, space-taking politics continued to occur though at a smaller scale surrounding the coup and the on-going debates about the military written constitution that was being forced through. I had expected and planned to conduct participant observation and engage with participants of space-taking politics within highly contested space in Bangkok (Lumphini Park and Ratchaprasong intersection). However, by the time I had arrived a year later, NCPO and Thai security forces had successfully prevented any on-going space-taking politics through revoking the right to assemble, increased security in previously contested space, and coercive discourses and practices discouraging dissent. It was highly visible that spatially based coercive interventionary force and order

enforcement by the Thai security apparatus was at the heart of the NCPO's state making project. As such, my arrival in Bangkok coincided with the final commitment to order-enforcement.

The final commitment of order-enforcement is to preserve ordered space with increased invocation and implementation of security and surveillance to mitigate re-seizure of contested space. My fieldwork experience and observations in December 2015 and January 2016 provide a foundation on which to understand the ongoing securitization through surveillance across Bangkok. Since 2010 and bolstered after the NCPO seized power in 2014, the securitization of Bangkok depends heavily on various forms of surveillance techniques. Spaces across Bangkok were identified and declared "at-risk zones" for space-taking protest, political attacks, and bombings. In fact, 77 Bangkok spaces were "designated for 'secret surveillance' by the Centre for Resolution of the Emergency Situation (CRES) to patrolled by teams of troops and police" (Haanstad 2012, p. 287). Further surveillance measures have been taken as 47,000 CCTV cameras have been linked across the city including thousands of private cameras (Trimek 2016). Essentially the Thai security apparatus has constructed a centralized surveillance system embedding a significant number of decentralized surveillance networks. Beyond CCTV cameras, Thai security forces have also established hundreds of new checkpoints and security structures—everything from small one person buildings to larger multi-person edifices across key intersections and public spaces in Bangkok. These new architectures of security are used to conduct "unspecified 'psychological operations' in order to keep people 'safe and sound'" (Haanstad 2012, pp. 287-288). The vast majority of this infrastructure is located in what was once contested space (Lumphini Park and Ratchaprasong intersection). The very visible architecture of security dominates these spaces as the figures and fieldwork anecdotes below demonstrate.

I visited Ratchaprasong intersection a total of six times during my time in Bangkok to observe security practices and everyday mobilities. Ratchaprasong intersection is home to the second largest mall in Southeast Asia, CentralWorld, as well as many other shopping centers which connects to a network of major hotels. It also is home to the Hindu/Buddhist Erawan Shrine, a popular tourist site as well as the site of the August 2015 bombing that killed 20 people and injured over 120. Having arrived in Bangkok

just a few months after the Earwan Shrine bombing, I was highly alert to the increased security presence at Ratchaprasong intersection as well as the more mobile nature of the space. On previous visits to Bangkok Ratchaprasong intersection was a space where both tourists and Thai peoples would gather and occupy in leisurely ways over time, particularly to grab Thai iced coffee or food at the many vendors that once occupied the place but have since moved elsewhere. However, in December 2015, the clear majority of people walked briskly through the intersection without stopping to their next destination. New gates/fencing, new CCTV surveillance cameras surrounded the place as well as a new RTP police structure was built that projected a powerful fortress mentality around the site. The skywalk over Ratchaprasong intersection also had police barricades/fencing which prevented people from overlooking the intersection. I had expected to spend more time at Ratchaprasong intersection, but because the of new security infrastructure, it was difficult to do so. The new securitized built environment promoted circulation and mobility rather than occupation which made it difficult to spend long periods of time observing the once contested space.

The ongoing practices of threat assessment at Ratchaprasong intersection clearly indicated that the once highly contested space needed significant securitization. In calculating potential threats at Ratchaprasong intersection, the Thai security apparatus use progressively technologically-based, methodical, and indiscriminately applied practices. These new forms of hyper-securitized state intervention that increasingly integrate technoscience and security governance (re)define our political and social futures through security hegemony and omnipresence and significantly shapes spatial relations in everyday life. The panopticism in a space that was generally unregulated creates a new multilayer experience of securitization that diminishes one's desire to occupy Ratchaprasong intersection space. The multiplication of surveilling securitized gazes creates a greater capacity of the Thai state to monitor, control, and discipline bodies in ever more accessible ways. It also has the potential to dislocate and marginalize access to Ratchaprasong intersection as deviant bodies conceived not to belong are very quickly removed.

The vigorous security and surveillance network I experienced at Lumpimi Park in central Bangkok is indicative of the on-going order-enforcement of the NCPO as well. During the Red Shirt Revolution and Operation Occupy Bangkok, Lumpimi Park occupied a central location for space-taking politics. Its edges intersect two key intersections and thoroughfares in Bangkok (Silom and Sathon) as well as the Lumpimi Police Station that were primary contested spaces occupied by demonstrator where clashes with security forces occurred. For example, in 2010 the police booth (Figure 1) at the intersection of Sathon and Lumpimi Park was damaged by Red Shirts trying to get into the park to get to the main protest site (Ratchaprasong) and were fired upon by Thai security forces after a M79 grenade exploded. Also, during the 2013-2014 Yellow Shirt demonstrations, Lumpimi Park was one of the main protest sites. During my fieldwork, I visited Lumpimi Park a total of 11 times so I could investigate all its entrances and pathways. While there, I was subject to multiple security check points at entrances to the park (Figure 2) as well as robust CCTV surveillance. Also, throughout the park there are 20 small one-person security booths (Figure 3) that create a spatial network with very high visibility of park visitors along with mobile security units (walking and bicycles). While I was there, I was even forcefully asked not to take pictures of the CCTV cameras and security booth in figure 3.

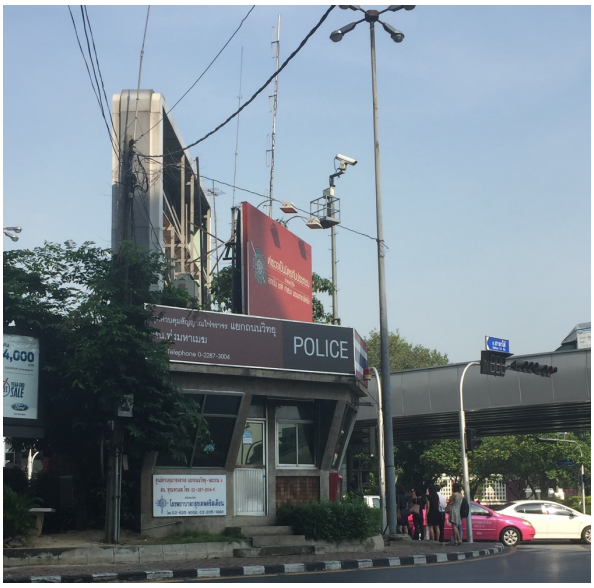


*Figure 1.* Police booth at Sathon and Lumpimi.

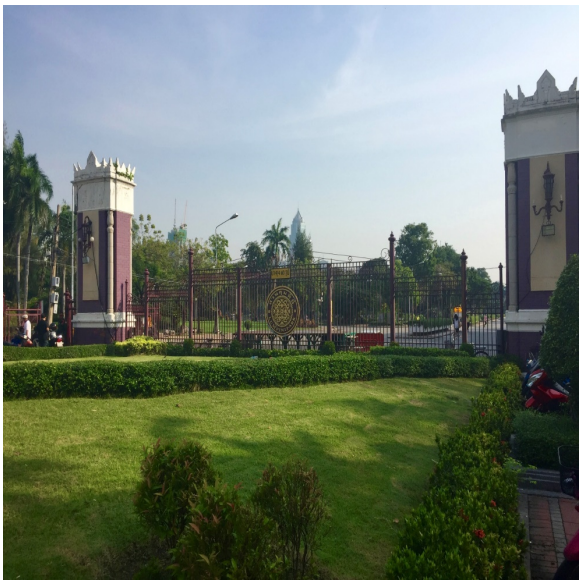

*Figure 2.* Entrance to Lumpimi Park.

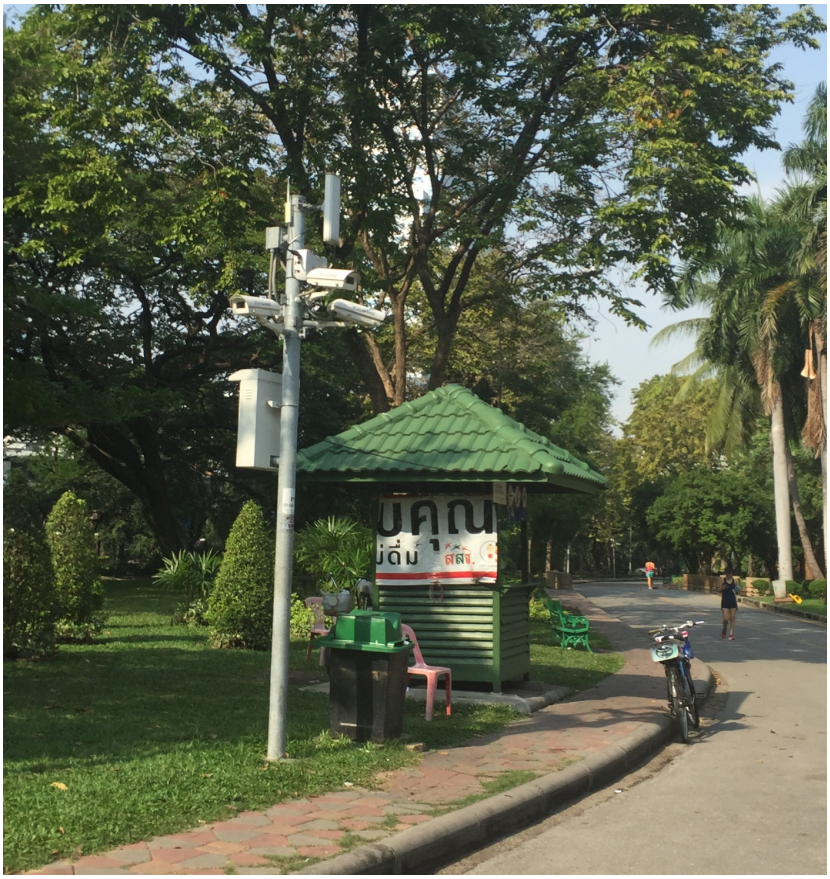

*Figure 3.* Security booth and CCTV cameras at Lumpimi Park.

The spatial logics of security and surveillance at Lumpimi Park serve order-enforcement in two significant ways. First, Thai security forces use the security and surveillance network to identify bodies that are conceived as not belonging and restricting their access and removing them from the park. In particular, persons perceived to be involved in "lewd behavior" (brawling, theft, sex work, drug activities) are confronted and quickly removed or arrested (NNT 2018). Targeting these behaviors results in an uneven geography of access to space in Lumpimi Park which always has the potential to evolve into contested space through space-taking politics or other forms of spatial and social order disruption. Second, these practices of order-enforcement promote greater mobilities and circulation flows for persons conceived to belong in Lumpimi Park. As the central park of Bangkok's 32 public parks, Lumpimi Park receives hundreds of tourists a day. As a Western, white, male I received very little attention from security during my time (besides being reprimanded for taking photos of security infrastructure). In fact, on one occasion, as a guard was checking the bags of Thai students I waited behind them expecting to

follow suit only to be waved around without pause. The productive spatial practices and logics of surveillance selects, encloses, and hierarchically manages and orders space privileging certain bodies (Klauswer 2013b). These processes of selection and differentiation produce uneven social and spatial orders in space while trying to anticipate threats, risks, and insecurities.

**Conclusion**

Subsequent years of political unrest and violence peaking with the 2014 military coup, are indicative of how specific spatial arrangements of security are suited to particular forms of power across Bangkok. Space-taking politics has defined the socio-political climate and spatial relations of Bangkok over the past decade and has transformed Thailand's security realities. Pointedly, these security realities are embodied as the optimal violence determined is enacted on the actual bodies whose bones can break, skin can tear, and whose blood can be spilled. As I stated before, the ways non-lethal weapons are conceived in security through technoscientific and political/ideological master and counter-frames is inseparable in how they are enacted in practice and embodied in everyday life through threat assessment and order-enforcement. To the extent that the overlap of security technologies (non-lethal weapons) and everyday life in Bangkok is a state project, I explore the how policies and practices of non-lethal intervention are a result of how non-lethal weapons offer transformative dynamics to policing spaces and bodies while simultaneously being stabilized within the Thai security policy and practice frameworks that shape state interventionary power in securing contested spaces across Bangkok. This case study focuses on how technoscientific and political/ideological frames of non-lethal are instituted in threat assessment and order-enforcement in Bangkok, Thailand. Moreover, this case-study serves as a starting point in which to engage other case studies to demonstrate the generalizability of my research. It describes the multiple spatial representations, materialities, and consequences of these practices to illuminate the conceptual and material intersections between the geopolitical and the intimate, state power and space-taking politics, and state violence and everyday life.

# Chapter 7 Conclusion

## Introduction

This final chapter proceeds in three sections. Following this brief introduction, I discuss general conclusions of my primary research findings that address my research questions on how non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence and how non-lethal weapons become stabilized within global police-military-network policy frameworks that shape state interventionary power in securing contested spaces. Subsequently, I consider the broader implications of this research project. In the final section, I forecast future trajectories for the study of non-lethal weapons in Geography and draw my discussion of the geographies of non-lethal weapons to an end.

Non-lethal weapons are increasingly deployed against a rising number of bodies in contested space across the world. As a research project at the intersection of political geography and STS, this dissertation illustrates state-sanctioned violence, the identification of bodies and spaces as threats, and the prioritization of science and technology in the service of state security agendas. It illuminates the ways non-lethal weapons change the dynamics of policing contested spaces and bodies that demonstrate how the exercise of power and knowledge create uneven geographies of violence. It is my belief that employing an integrated STS and political geography conceptual framework makes possible greater understandings around the contingency and indeterminacy of *what is known* and *how it is known* in relation to the geographies on non-lethal weapons. Geographic literature on the logics of (in)security is vigorous, but less attention has been paid to (non)lethality and its operation within contested spaces, contentious politics, and exercises of state disciplinary power. This dissertation fills this gap in literature by engaging state interventionary and disciplinary power that connects optimal violence to order, coercion to (non-)lethality, and state power to contested space. It addresses the paucity in the geographic literature on the politics of non-lethality and its materializations, through non-lethal weaponry, that proliferate across the world changing the dynamics of policing contested spaces and bodies.

Importantly, this project imagines and promotes political mobilizations and space-taking politics that are aimed at reflexive, anticipatory, and responsible participation and cooperation in contested spaces. A politics of this kind subverts hegemonic security-logic and promotes alternative possibilities for what a "sense of security" entails (Durodié 2006, p. 193). As space-taking politics spreads at unseen scale that can be traced through many spaces and socio-spatial contexts, civil-security relations are continually stressed as the state attempts to reconcile the agility, adaptability, and revolutionary potential of these movements**.** This research project asserts that non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence while becoming stabilized in the global police-military-network. My research is situated to understand the day-to-day technoscientific and state policies and practices that underwrite the (re)making of the conceptual boundaries of the state and individual bodies in relation to the deployment of transformative technologies like non-lethal weapons.

**General Conclusions**

My research addresses an opening in scholarship on the state's sovereign right to exercise violence and take life, highlighting the ways through which the state regulates life and death by *making life,* albeit through optimal violence and order-enforcement. The fundamental observation of "how is life and death regulated and by whom?" raises many questions for me as I pursue greater understanding on the geographies of security and violence (Denyer Willis 2015, p. 5). Often geographic research rigorously focuses on the logics of (in)security and lethal violence giving less attention non-lethal violence and the continuum it forms. As I stated in Chapter 2, research on political violence in geography tends to focus on "spectacle", the extraordinary, and/or moments of violent aberration (see Gregory & Pred 2007; Springer & Le Billon 2016). This project shifts the focus from lethal violence to the ways the state exercises non-lethal violence and the ways non-lethality has been stabilized within state interventionary power. I challenge the non-lethal/lethal distinction that has become stabilized within modern security frameworks through the state's claim to a monopoly of exercising violence as well as its

monopoly on the decisions of what counts as legitimate and illegitimate violence. Utilizing my STS co-productionist conceptual framework and discourse analysis, I contend that non-lethal intervention in contested space has been transformed as an optimal violence exercised through threat assessment and order-enforcement integrates an expanded conceptualization of non-lethality within security and the continuum of force.

Non-lethality in security is a political idea, a technoscientific materiality, a spatial manifestation, and a co-production of sociohistorical forces. This dissertation locates non-lethality and it recognizes that non-lethality has a geography, a geography that challenges the logics and norms, contextual history, and material realties of non-lethal weapons and their transforming role in political violence. I argue that technoscientific governance, arranged by the global police-military-network, co-produces new spaces of state violence aimed at managing bodies and spaces in which perceptions of threat, unease, and insecurity becomes a condition of governing through non-lethality in security. Non-lethality in security moves beyond mere technocratic and/or ethical agendas aimed to strengthen the state's legitimacy in its social contract with its citizens. It is a product of sociohistorical, technological, and ideological forces that strengthen its claim to the state's domination of exercising violence. As such, my research contends that non-lethal weapons are co-constitutive of a range of technoscientific and political/ideological logics and limits that depoliticize their design, development, and deployment to dislocate bodies and secure contested space through an often-unnoticed state violence. Like Maguire and Fussey (2016) state, "Security may be a new name for long-standing state violence in many parts of the world, but it is also a site of new technoscientific assemblages and forms of expertise that seek to know and manage the near future" (p. 42). Non-lethal weapons are new technoscientific assemblages perpetuated by security expertise that attempts to make sense of the (non-)lethal distinction.

Non-lethal weapons in state interventions have a long historical trajectory, but changing dynamics driven by the proliferation and globalizing security agenda have drawn significant debate and discussion in understanding non-lethal state intervention in contested space. Central to these debates and discussions are the ways knowledge production surrounding non-lethality in security is often rendered

invisible by a diverse range of so-called experts who maintain authority. The ways experts design and pursue innovation regarding non-lethal weapons is essential to understanding the ways non-lethal weapons are stabilized within the global police-military-network and their transformative power in shaping the dynamics of policing contested spaces and bodies. This project purposefully subverts conventional understandings of non-lethal weapons. It offers a critical analysis of expert bodies working through highly debated and contested knowledge in relation to security and science and technology policy making and implementation. I provide a lens through which to understand how the production of knowledge becomes salient, credible, and legitimate for non-lethal state interventions in contested spaces. As such, the varied relations of security, technoscience, and non-lethal weaponry can be recognized and more thoroughly understood through the co-production of the many dynamic, complex, and contradictory knowledge(s) and material embodiments.

I argue that non-lethal weapons make new forms of state interventionary and disciplinary power possible and engender political violence as new technoscientific and security realities become acceptable. As such, the range of conditions of non-lethal weapons deployment is better understood through this dissertation. Accordingly, I determine that experts employ a range of technoscientific and political/ideological master frames of non-lethal weapons to depoliticize discussions and debates of non-lethal weapons. The depoliticization of non-lethal weapons is marshaled by expert knowledge and techniques of deliberation that uncouple and substitute dissensual contestation with technocratic security norms and ideological imperatives from which legitimacy and authority is drawn. Conversely, counter technoscientific and political/ideological frames attempt to (re)politicize discussion and debates of non-lethal weapons by displacing master frames. However, as my analysis indicates, the hegemony of 'common sense' understandings of insecurity, threat, disorder, and (non-)lethality are difficult to confront. That being said, I offer many starting points in which to mitigate the strength of common sense understandings of non-lethal weapons in my analysis.

While I address my primary findings in detail in Chapter 5, I think it is important to highlight two significant general findings about the ways non-lethal weapons legitimize and stabilize optimal violence

in exercises of state power. First, technoscientific and political/ideological master frames co-produce the legitimacy of non-lethal weapons that the state strategically employs to produce wider programs of state action regarding the use of force against civilians. Consequentially, these actions weaken responsible deliberation and cooperation surrounding policies and practices of (non-)lethality and security. Technoscientific and political/ideological master frames separate non-lethal weapons and non-lethal state intervention in contested space from broader socio-political relations in the deliberation process and privileges security and science and technology experts and expertise. As such, my research suggests that non-lethal state interventions and non-lethal weapons are increasingly stabilized within hegemonic visions of scientific objectivity and within humanitarian ideals viewed as optimal asocial, apolitical, and spatial orderings of contested space. These transformations in security governance (re)define our everyday socio-political and spatial futures through a security hegemony and omnipresence and draw on conceived 'benign' forms of state power, and ultimately, state violence.

Second, non-lethal weapons produce, and are produced by, discursive structures around security, (non-)lethality, and technoscience that shape the geographies of non-lethal weapons with very real material, spatial, and embodied consequences. This development is apparent in the ways threat assessment and order-enforcement are progressively technologically-based, methodical, and (in)discriminately applied in contested space. Non-lethal weapons provide a means by which increasingly interventionary security regimes can exercise violence to quell political and social dissent. The formidable structures that co-produce and sustain the legitimacy of non-lethal weapons justifies and promotes future trajectories of optimal violence wielded against bodies. The meticulous and methodical calculations and metrics that support the (non-)lethal distinction lack embodied understanding. Pain, suffering, injury, and death are experienced by actual human beings who are undervalued because they are conceived as "deviant" and/or "transgressive".

The very limits of the value of human life are being calculated using statistics and metrics with little questioning. Understanding this shift in the valuation of bodies within security governance requires an examination of precarity as a mode of life and a fundamental principle in considering the ways our

lives are governed (Butler 2006, 2016). Precarization encompasses more than perceptibly calculable threats, fears, and vulnerabilities emanating from and within (in)security. It denotes the struggle of measuring the immeasurable; "precarization means living with the unforeseeable, with contingency" (Lorey 2015, p. 98). As the co-production of (in)security, technoscience, and (non-)lethality continues to increase socio-political legibility and order the state extends its nebulous of securitarian forms of power (Butler 2016). Precariousness is both a condition and effect of governing through (in)security as the state's capacity to 'take life' and 'make life' continues to expand (Lorey 2015). As such, political subjects must continually (re)constitute their everyday lives in relation to social-securitized spaces in which the state exercises disciplinary, coercive, and violent policies and practices in the name of stability, security, and order.

Overall, non-lethal weapons emerge within and from systems of (non)lethality, legitimacy and violence(s) through which metrics of injuring—and killing—are calculated, and determined strategic necessities in policing contested spaces and bodies and preserving the legitimacy of state power. In other words, non-lethal weapons shift *how security happens*. As I stated in Chapter 1, non-lethal weapons are objects in perpetual formation that produce diverse desires and visions that derive from a range of policies and practices that maintain the normalcy of binaries of technical and non-technical, political and apolitical, and social and asocial. This project disrupts the normalcy of these binaries and takes a critical approach in questioning the taken-for-granted understandings and common sense assumptions of non-lethal weapons in security. My research determines that non-lethal weapons significantly transform the state's ability to exercise violence as part of its portfolio of security mechanisms where optimal violence in a continuum of force is presented and practiced in threat assessment and order-enforcement as a legitimate way of policing contested spaces and bodies. In sum, the geographies of non-lethal state intervention co-produce heterogeneous practices of threat assessment and order-enforcement that stabilize non-lethal weapons in global police-military-network frameworks and changes the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence.

**Broader Implications**

The recent waves of space-taking politics in Hong Kong, Khartoum, Moscow, and elsewhere considerably revive attention to expressions of citizenship and state intervention in contested politics. My research addresses how specific security discourses and materialities of and within contested spaces shape interactions not only during the event, but also maintain lasting effects on bodies and spaces (Daphi, 2017). The disciplinary techniques of dislocating bodies and securing contested spaces are an elaborate display of power and knowledge inscribed on bodies (civilians *and* security forces), an (dis)ordering of space, and are (re)shaping of the accountability and legitimacy of state interventionary policy and practice (Staples 2014; Coleman 2016; Woodward 2016; Williams 2016). Non-lethal weapons allow for new forms of state interventionary power to be exercised and accepted. They disrupt emerging, active, and resistant citizenry. They are stabilized in the globalized police-military-network, making their use seem "ethical" and ordinary and produces new scientific, technical, and strategic security realities conceivable (Anaïs, 2015). Concurrently, this research advances the development of technoscientific and security theory, methods, and practice in Geography.

As a scholastic contribution in political violence and civil-security relations, my dissertation research pushes disciplinary boundaries in the ways we understand policing bodies and spaces that produce uneven spatial and social relations. I show how policing and security practices of discipline, order, and management shape and define spaces and bodies as contested and therefore in need of stronger state intervention and governance. The security mechanisms of state power that underpin security employ various geopolitical narratives and discourses aimed to identify and define notions of threats and danger but do so in increasingly apolitical, asocial, and technical ways. Thus, state power is increasingly understood through the state's ability to generate novel forms of governance *through* security, (non-)lethality, and technoscience that are spatially articulated and unevenly applied. This creates the space for a stronger interface between STS and political geography. It opens innovative paths for geographers to extend geographical imaginations and practices by highlighting the social and material dimensions of how and where knowledge is produced (Pickett et al. 2019).

Also, I engage in dynamic, new theoretical and methodological debates about how state violence is unevenly exercised in contested space. Forwarding a robust discourse analysis methodology that employs content analysis and intertextual research models to better understand how these disparities are disputed, negotiated, and reworked affords an opportunity to better locate non-lethal weapons, security, and technoscience in geographic research. This approach both widens and strengthens the avenues in which to understand the complex relationality and intersectionality of security that reflects the interconnectivity of state governance and everyday life (Aradau et al. 2015). Methods move beyond simple data collection per a set of techniques and exist as practices in and upon security regimes themselves. Methods-as-practice considers the messiness and never straightforwardness of research. This stance is visible in my experience in the field in Bangkok as discussed in Chapter 6. This project recognizes that knowledge production and its methods are socially and materially complex networks of practice and calls on geographers to pay closer attention to this.

By locating non-lethal weapons within a context of a set of political, historical, and material relations between technology, security, and broader regimes of governance, the violence of (non-)lethality can enhance current and future infrastructure for STS and geographic research and education. This project explicitly subverts pre-existing assumptions about non-lethal weapons by moving beyond technical specifications or solely focusing on the relationship between non-lethal weapons and their targets or users by re-theorizing how we understand non-lethal weapons and capturing experiences on the ground. It makes accessible ways to dispute and disrupt dominant narratives and re-politicize of non-lethal weapons as well as interrogate non-lethality in security. As such, this project has the potential to advance new discovery and understanding of practices of non-lethal interventions across disciplines across the social sciences.

Overall, I set a path for other researchers to engage everyday contexts of state interventionary power, emphasizing the use of interdisciplinary, theoretical frameworks and methodologies that are practiced in the field linking the ways in which material and discursive dimensions of knowledge

production and practices impact and direct action and its possibilities. **A**pplying the results to other fields may hold significant benefits to society. On one hand, the findings of this project have the potential to inform policy that integrates the scientific and technological literacy of academia and industry with public engagement and governance practices that can form new models for decision-making overcoming the challenges of security in contested spaces as well as reducing the risk of negative impacts of non-lethal weapons deployment. On the other hand, this project calls for a reevaluation of institutional commitments to accelerating non-lethal weapons and innovations by asking for new decision-making and partnership models in formulating new standards and guidelines, expertise, and codes of practice. Overall, in making the case for geographies of non-lethal weapons, this project sits at an intersection of scholarship, policy, and practice that can determine alternative paths forward for the design, development, and deployment of non-lethal weapons.

**The Future of the Geographies of Non-Lethal Weapons**

The central objective of my research is to examine the broader impacts of the ways the state exercises non-lethal intervention to accomplish certain spatial, social, and political ends. I believe that making the case for critical geographies of non-lethal weapons is the first step in demystifying the shifting ambiguities of (non-)lethality and (in)security in non-lethal state interventions in contested spaces. This project forwards new understandings of the ways non-lethal weapons change the dynamics of policing contested spaces and bodies in ways that preserve the legitimacy of state interventionary power and violence. Emphasizing the robust use of STS and geographical theory and methods links the discursive and material dimensions of knowledge production and practice with the ways they impact non-lethal state interventions in contested space. This conceptual and methodological framework can be used and adapted across the social sciences to further interrogate the complexities of geographies of non-lethal weapons. Importantly, I believe that analyses should be grounded with empirical case studies to expose the lived everyday experiences and embodied consequences of non-lethal state interventionary power and non-lethal weapons.

My research is broadly concerned with the ways the state regulates life and death in the

reproduction of social and spatial order. Working through the critical geographies of non-lethal weapons over the past few years has meant contending with increasingly hostile political regimes, highly contested spaces, and concealed knowledge orders, particularly in Thailand. Due to the global scope of non-lethal weapons proliferation and use, its political relevance, and its highly-contested nature, better understandings must continue to move beyond the scopes of this dissertation. As such, I believe that the research presented here highlights the fact that geographic perspectives and knowledge has the greatest potential to investigate non-lethal weapons in all their complexities as they continue to shape spatial arrangements of power and violence. In particular, political geographers' attention to spatial relations and geopolitical discourses across scale—from the global level to lived everyday experience—can greatly add to a more nuanced understanding of the transformative technologies and political violence non-lethal weapons engender. This project is the starting point of forwarding a critical intervention in understanding the geographies of non-lethal weapons that produces, enables, and gives meaning to the productive capacities of violence in shaping the spatialities of power in everyday life. To move forward with critical geographies of non-lethal weapons I believe the following three broadly distinct but not mutually exclusive research objectives must be addressed:

1) To understand how and in what ways state sanctioned optimal violence has come to govern (in)security under the auspices of governance which stabilize "law and order" rhetoric and the rule of law.
2) Demonstrate how the less-visible and slower violence of non-lethality in security might be made more visible in diverse spaces and contexts around the world.
3) To call attention to the emotions and embodiment of non-lethal optimal violence often rendered invisible by dominant narratives to engage more nuanced conceptualizations of violence and the continuum it forms.

It is not my intent to explain non-lethal state violence per say but rather to understand it better. Security governance has become a normalized and promoted vital part of everyday life. As such the blurring between state war machine and everyday life continues to transpire at even greater degrees than previously seen before. Under the pretenses of greater stability, governance regimes are legitimizing the use of repressive and violent actions, hyper-surveillance, and persuasive rhetoric to continually erode citizens' liberties in the name of security and order. Inevitably, to conclude this dissertation I draw you

back to the scene set in Chapter 1 (Setting the Stage):

> The physical and psychological stresses and violence you endured slowly begins to heal over time. While your bones mend, flesh heals, and primary body systems begin to restore to normalcy the scars—both visible and invisible—tell a story of the extension of weapon technologies in everyday life. They loudly announce that the human body, *your body*, is subject to various forms of violence (and death) by *actual* practices of security and ordering by the state. They are reminders of the state's claim to a monopoly of exercising violence as well as its monopoly on the decisions of what counts as legitimate and illegitimate violence. In addition, they represent the changing dynamics of policing your body and the spaces you occupy in ways that legitimize and stabilize the use of non-lethal weapons in state security frameworks. The immutable power of these weapons systems begins to overwhelm again … but you remember that the capacity for state violence to sustain a political world can be questioned. It can be challenged. It can be confronted.

Making the case for critical geographies of non-lethal weapons is my own attempt to question, challenge, and confront state power and violence. I seek to (re)imagine and (re)discover the diverse paths that legitimize (non-)lethal state interventionary power and violence to better understand state-sanctioned violence, the identification of bodies and spaces as threats, and the prioritization of science and technology in the service of state security agendas.

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**Appendix 1**

**Source materials and texts coded using intertextual research models.**

| Title | Author(s) | Date/Year | Frame Type(s) | Model # | Analytical Focus | Object of Analysis | Goals of Analysis |
|---|---|---|---|---|---|---|---|
| Strategic Plan 2016-2025 Science & Technology Joint Non-Lethal Weapons Program | U.S. Department of Defense Non-Lethal Weapons Program | 2015 | 1 | 1 | 4 | 1a | 1 |
| Non-Lethal Weapons Program Executive Agent's Planning Guidance 2016 | U.S. Department of Defense | 2016 | 1 | 1 | 4 | 1a | 1 |
| DoD Non-lethal Capabilities: Enhancing Readiness for Crisis Response | U.S. Department of Defense Non-Lethal Weapons Program | 2015 | 1 and 2 | 1 | 4 | 1a | 1 |
| U.S. Department of Defense Executive Agent for Non-Lethal Weapons (NLW), and NLW Policy | U.S. Department of Defense | 4/25/2013 | 2 | 1 | 2 and 4 | 1b | 1 |
| U.S. Department of Defense Non-Lethal (NLW) Human Effects Characterization | U.S. Department of Defense | 5/17/2012 | 2 | 1 | 2 and 4 | 1a | 1 |
| Non-Lethal Weapons (NLW) Reference Book | U.S. Department of Defense | 2012 | 1 | 1 | 4 | 1c | 1 |
| Non-Lethal Weapons (NLW) Reference Book | U.S. Department of Defense | 2011 | 1 | 1 | 4 | 1c | 1 |
| Annual Review 2013: Non-Lethal Capabilities for Complex Environments | U.S. Department of Defense Non-Lethal Weapons Program | 2013 | 1 | 1 | 4 | 1a | 1 |

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| Annual Report 2012: Non-Lethal Weapons for Complex Environments | U.S. Department of Defense Non-Lethal Weapons Program | 2012 | 1 | 1 | 4 | 1a | 1 |
| Annual Report 2010/2011: Non-Lethal Weapons for Today's Operations | U.S. Department of Defense Non-Lethal Weapons Program | 2011 | 1 | 1 | 4 | 1a | 1 |
| Annual Report 2009: Escalation-of-Force Options | U.S. Department of Defense Non-Lethal Weapons Program | 2009 | 1 | 1 | 4 | 1a | 1 |
| Annual Report 2008: Expanding Warfighter Capabilities | U.S. Department of Defense Non-Lethal Weapons Program | 2008 | 1 | 1 | 4 | 1a | 1 |
| Nex-generation non-lethal technologies | Law, David. Joint Non-Lethal Weapons Directorate, U.S. Department of Defense | 9/14/2016 | 1 and 2 | 1 | 2 and 4 | 2 | 1 |
| Local Police Departments, 2013: Equipment and Technology | Reaves, Brian A., Bureau of Justice Statistics, Office of Justice Programs | Jul-15 | 1 and 2 | 1 | 2 | 2 | 1 |
| Crowd Characteristics and Management with Non-Lethal Weapons: A Soldier Survey | Target Behavioral Response Laboratory, U.S. Army Armament Research Development and Engineering Center | 7/23/2014 | 1 | 1 | 2 and 4 | 1c | 1 and 2 |

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|---|---|---|---|---|---|---|---|
| NATO Studies on Non-Lethal Weapons (NLWs): Effectiveness, Human Effects, and Future Technologies | Murphy, Michael. Directed Energy Bioeffects Division, Human Effectiveness Directorate, Air Force Research Laboratory, Brooks City-Base, Texas | Aug-06 | 2 | 1 | 15 | 1c | 1 |
| Final Findings from the Expert Panel on the Safety of Conducted Energy Devices | Higgins, Brian. National Institute of Justice | Oct-11 | 1 and 2 | 1 | 2 | 2 | 1 and 2 |
| Police Use of Force, Tasers and Other Less-Lethal Weapons | Alpert, G., Smith, R., Fridell, L., MacDonald, J., and Kubu, B., National Institute of Justice | May-11 | 1 | 1 | 2 | 2 | 1 and 2 |
| Electronic Control Weapon Guidelines, 2011 | Police Executitve Research Forum and U.S. Department of Justice Office of Community Oriented Policing Services | Mar-11 | 1 | 1 | 2 | 1a | 1 |
| TRADOC Pamphlet 526-66: Force Operating Capabilities | U.S. Army Training and Doctrine Command | 3/7/2008 | | 1 | | | |
| DoD Non-Lethal Weapons Program, Overview Brief and Information Exchange | Zeroth, Douglas | 1/15/2015 | 1 and 2 | 1 | 2 and 4 | 2 | 1 |

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|---|---|---|---|---|---|---|---|
| Non-Lethal Capabilities on Exhibition at 2011 NATO | NATO | Jul-05 | 1 | 1 | 5 | 1c | 1 |
| Less Lethal Weapons: Project Order Management | United Nations | 2015 | 1 and 2 | 1 | 5 | 2 and 3 | 1 and 2 |
| Multi-Service Tactics, Techniques, and Procedures for the Tactical Employment of Nonlethal Weapons | U.S. Air, Land, Sea Application Center | Oct-07 | 1 and 2 | 1 | 4 | 1a and 1c | 1 |
| Regional Defense Combating Terrorism Fellowship Program: Fiscal Year 2014 | U.S. Department of Defense | 11/21/2014 | 1 and 2 | 1 | 2 and 4 | 1a and 2 | 1 |
| Police Use of Nonfatal Force, 2002-11 | Hyland, S., Langton, L., and Davis, E., U.S. Department of Justice, Office of Justice Programs, Bureau of Justice Statistics | Nov-15 | 1 and 2 | 1 | 2 | 1c and 2 | 1 and 2 |
| Making It Safer: A Study of Law Enforcement Fatalities Between 2010-2016 | Berol, N., and Luongo, D., Office of Community Oriented Policing Services, U.S. Department of Justice | Mar-18 | 2 | 1 | 2 | 2 and 3 | 1 and 2 |
| National Consensus Policy on Use of Force | Collective authorship (See document) | Jan-17 | 2 | 1 | 2 | 1a and 2 | 1 |
| Non-Lethal Weapons: Opportunities for R&D | Stocker, H., Dick, J. L-C., and Berubè | Dec-04 | 2 | 1 | 2 and 4 | 1a and 1c | 1 |

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|---|---|---|---|---|---|---|---|
| U.S. Department of Defense Directive: Irregular Warfare (IW) | U.S. Department of Defense | 12/1/2008 w/ Change 5/1/2017 | 2 | 1 | 4 | 1b | 1 |
| U.S. Department of Defense Directive: Stability Operations | U.S. Department of Defense | 9/16/2009 | 2 | 1 | 4 | 1b | 1 |
| U.S. Department of Defense Directive: Defense Support of Civil authorities (DSCA) | U.S. Department of Defense | 12/29/2010 | 2 | 1 | 4 | 1b | 1 |
| NATO Policy on Non-Lethal Weapons | NATO | 9/27/1999 | 1 | 1 | 5 | 1a | 1 |
| NATO System Analysis Panel: Non-Lethal Weapons Effectiveness Assessment (SAS-035) | NATO | 10/21/2004 | 1 and 2 | 1 | 5 | 1a | 1 |
| NATO System Analysis Panel: Long-Term Scientific Study on Non-Lethal Weapons and Future Peace Enforcement Operations (SAS-40) | NATO | 12/11/2004 | 1 | 1 | 5 | 1a | 1 |
| NATO Human Factor Panel: The Human Effects of Non-Lethal Technologies (HFM-073) | NATO | 8/4/2006 | 1 and 2 | 1 | 5 | 1a | 1 |
| NATO Systems Analysis Panel: Non-lethal Weapons Effectiveness Assessment Development and Verification Study (SAS-060) | NATO | Oct-09 | 1 and 2 | 1 | 5 | 1a and 2 | 1 and 2 |

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| NATO: Systems Analysis Panel: NATO Non-Lethal Weapons Capabilities Based Assessment (SAS-078) | NATO | Dec-12 | 1 | 1 | 5 | 1c and 2 | 1 |
| NATO Systems Analysis Panel: NATO Non-lethal concepts and Employments (SAS-094) | NATO | 5/4/2017 | 1 | 1 | 5 | 1c and 2 | 1 |
| Basic Principles on the Use of Force and Firearms by Law Enforcement Officials | United Nations | 9/7/1990 | 2 | 1 | 5 | 1a and 1c | 1 |
| Code of Practice on Police Firearms and Less Lethal Weapons | Home Office - United Kingdom | 2003 | 2 | 1 | 2 | 1b | 1 |
| Taser use in England and Wales | McGuinness, T., House of Commons Library | 9/12/2016 | 2 | 1 | 3 | 1c and 3 | 1 and 2 |
| Minimal Force Options and Less-Lethal Technologies: Report on the Seventh International Law Enforcement Forum | Mazzara, A., Burrows, C., Hughes, E., (Eds.) | Jul-11 | 1 | 1 | 2 | 2 | 1 and 2 |
| Department of Defense Nonlethal Weapons and Equipment Review: A Research Guide for Civil Law Enforcement and Corrections | National Institute of Justice, U.S. Department of Justice | Oct-04 | 1 | 1 | 2 | 1c | 1 |
| Impact of Immigration on Ethnic-Specific Violence | Maritnez Jr., Ramiro., U.S. Department of Justice | 11/7/2003 | 2 | 1 | 3 | 3 | 2 |
| Police Use of Force: The Impact of Less-Lethal Weapons and Tactics | Bulman, P., National Institute of Justice: U.S. Department of Justice | Nov-10 | 1 | 1 | 3 | 2 | 2 |

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|---|---|---|---|---|---|---|---|
| Police Accountability: Current Issues and Research Needs | Walker, S., National Institute of Justice, U.S. Department of Justice | May-07 | 2 | 1 | 3 | 2 and 3 | 1 and 2 |
| Study of Deaths Following Electro Muscular Disruption: Interim report | National Institute of Justice, U.S. Department of Justice | Jun-08 | 2 | 1 | 3 | 2 | 1 and 2 |
| Hand-Held Aerosol Tear Gas Weapons: Technology Assessment Program | National Institute of Justice, U.S. Department of Justice | Sep-85 | 1 | 1 | 3 | 2 | 1 |
| European Defense Agency Annual Report 2017 | European Defense Agency | 3/12/2018 | 1 | 1 | 2 and 4 | 1a and 1c | 1 |
| European Defense Agency Annual Report 2016 | European Defense Agency | 3/10/2017 | 1 | 1 | 2 and 4 | 1a and 1c | 1 |
| European Defense Agency Annual Report 2015 | European Defense Agency | 4/18/2016 | 1 | 1 | 2 and 4 | 1a and 1c | 1 |
| European Defense Agency Annual Report 2014 | European Defense Agency | 2/9/2014 | 1 | 1 | 2 and 4 | 1a and 1c | 1 |
| Resolution on the environment, security and foreign policy | The European Parliament | 1/14/1999 | 1 | 1 | 2 | 1a and 1b | 1 |
| ASEAN Human Rights Declaration and the Phnom Penh Statement on the Adoption of the ASEAN Human Rights Declaration (AHRD) | ASEAN | Feb-13 | 2 | 1 | 2 | 1a and 1b | 1 |
| ASEAN Political-Security Community Blueprint | ASEAN | Jun-09 | 1 and 2 | 1 | 2 | 1a and 1b | 1 and 2 |

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|---|---|---|---|---|---|---|---|
| ASEAN Political-Security Community Blueprint 2025 | ASEAN | Mar-16 | 1 and 2 | 1 | 2 and 4 | 1a and 1b | 1 and 2 |
| Constitution of the Kingdom of Thailand B.E. 2560 | Government of Thailand (EN translation) | 2017 | 2 | 1 | 1 and 2 | 1b | 1 |
| National Police Act (2018) | Government of Thailand (EN translation) | 2018 | 2 | 1 | 2 | 1b | 1 |
| Organic Act on Ombudsmen B.E. 2552 (2009) | Government of Thailand (EN translation) | 2009 | 2 | 1 | 1 | 1b | 1 |
| Concluding observations on the second periodic report of Thailand | United Nations Human Rights Committee | 3/25/2017 | 2 | 1 | 5 | 1c | 2 |
| Policy recommendations and suggestions for improvement of special laws related to the Martial Law Act B.E. 2457(1914), Emergency Decree on Public Administration in State of Emergency B.E. 2548(2005) and Internal Security Act B.E. 2551(2008) | The National Human Rights Commission of Thailand | Feb-14 | 2 | 1 | 3 | 1b and 3 | 1 and 2 |
| Internal Security Act, B.E. 2551 (2008) | Government of Thailand (EN translation) | 2/19/2008 | 2 | 1 | 1 | 1b | 1 |

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| Report on the National Council for Peace and Order (NCPO) and the Interim Government (May-October, 2014). | The National Human Rights Commission of Thailand | Oct-14 | 2 | 1 | 3 | 1c | 1 and 2 |
| General Guidance for Planners in Thailand | Joint U.S. Military Advisory Group Thailand | 7/18/2016 | 1 | 1 | 2 and 4 | 2 | 1 |
| Thailand: Background and U.S. Relations | Chanlett-Avery, E., Dolven, B., and Mackey, W., U.S. Congressional Research Service | 7/29/2015 | 2 | 1 | 3 | 1c and 2 | 1 and 2 |
| Order Number 3/2558 (3/2015) of the Head of the NCPO on Maintaining Public Order and National Security | Government of Thailand (EN translation) | Mar-15 | 1 and 2 | 1 | 1 | 1b | 1 |
| Directed-Energy Weapons: Promise and Prospects | Ellis, J., Center for New American Progress | 8/7/2015 | 1 | 2 | 5 | 2 | 1 |
| Non-Lethal Weapons and Capabilities | Allision, G., Kelley, P., and Garwin, R., Council on Foreign Relations | 2004 | 1 | 2 | 5 | 2 | 1 |
| Underkill: Scalable Capabilities for Military Operations Amid Populations | RAND Corporation | 2009 | 1 | 2 | 5 | 2 | 1 |

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| Changing the Game: the Promise of Directed-Energy Weapons | Gunzinger, M., and Doughetry, C., Center for Strategic and Budgetary Assessments | 4/12/2012 | 1 | 2 | 5 | 2 | 1 |
| Non-Lethal Weapons: Technologies and Global Market | Homeland Security Research Crop. | 2014 | 1 | 2 | 4 | 4 | 1 |
| Significance of Rib Fractures from Blunt-Impact Non-Lethal Weapons | King, A., et. al. Institute for Defense Analysis | Feb-18 | 1 | 2 | 4 | 2 | 1 |
| Sustaining the Rebalance in Southeast Asia: Challenges and Opportunities Facing the Next Administration | Cronin, P., Center for a New American Security | May-16 | 2 | 2 | 5 | 2 | 1 and 2 |
| Less-Lethal Operational Scenarios for Law Enforcement | Hughes, E., (Ed.), Institute for Non-Lethal Defense Technologies | 8/26/2005 | 1 | 2 | 6 | 2 | 1 |
| Visual Effects Assessment of the Green Laser-Baton Illuminator (GLBI) | Dennis, R., and Harrison, J., United States Air Force Research Laboratory | May-01 | 1 | 3 | 6 | 2 | 1 |
| High-Power Compact Microwave Source for Vehicle Immobilization | Eureka Aerospace | Nov-11 | 1 | 2 | 4 | 4 | 1 |

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| From Niche to Necessity: Integrating Nonlethal Weapons Into Essential Enabling Capabilities | Center for Transatlantic Security Studies | 2012 | 2 | 3 | 6 | 2 | 1 |
| 8th European Symposium of Non-Lethal Weapons | European Working Group on Non-Lethal Weapons | 5/20/2015 | 1 | 2 | 4 | 2 and 4 | 1 and 2 |
| Non-lethal weapons: a case study of new technology developments | Stockholm International Peace Research Institute | 1994 | 1 | 2 | 6 | 2 | 1 |
| Geneva Guidelines on Less-Lethal Weapons and Related Equipment in Law Enforcement | Institute for International and Comparative Law in Africa and Centre for Human Rights | Jul-18 | 1 | 3 | 6 | 2 | 1 and 2 |
| US non-lethal weapon 'wish list' revealed on the net | BBC News | 3/8/2012 | 2 | 2 | 2 | 3 | 1 |
| The Sound of Things to Come | Sella, Marshall, NY Times Magazine | 3/23/2003 | 2 | 2 | 2 | 3 | 1 |
| RNC [Republican National Convention] to Feature Unusual Forms of Sound | Onion, Amanda, ABC News | 8/25/2004 | 2 | 2 | 2 | 3 | 1 and 2 |

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| The Pentagon's quest for nonlethal arms is amazing. But is it smart? | US News and World Report | 6/29/1997 | 2 | 2 | 2 | 3 | 2 |
| Mystery of Sonic Weapon Attacks at US Embassy in Cuba Deepens | The Guardian and Associated Press | 9/14/2017 | 2 | 2 | 2 | 3 | 1 |
| Are We Ready for the Russian Zombie Gun? | DiSalvo, D. , Forbes | 4/7/2012 | 2 | 2 | 2 | 3 | 1 and 2 |
| The Microwave Scream Inside Your Skull | Hambling, D., Wired | 7/6/2008 | 2 | 2 | 2 | 3 | 1 |
| China Builds Laser Rifle That Can Remotely Set Fire to People's Skin | Cuthbertson, A., The Independent | 7//2/2018 | 2 | 2 | 2 | 3 | 1 |
| AFSOC General Calls for More Emphasis on Directed-Energy Weapons | Hirsch, S., Airforce Magazine | 6/27/2018 | 2 | 2 | 2 | 3 | 1 |
| Beam weapons almost ready for battle | MSNBC | 1/11/2006 | 2 | 2 | 2 | 3 | 1 |
| A 911 plea for help, a Taser shot, a death - and the mounting toll of stun guns | Eisler, P., Reid, T., and Smith, G., Reuters | 8/22/2017 | 2 | 2 | 2 | 3 | 1 and 2 |
| First State Legalizes Taser Drones for Cops | Glawe, J., The Daily Beast | 8/26/2015 | 2 | 2 | 2 | 3 | 1 and 2 |
| Protests Boost Sales and Fears of Sonic Blaster | ABC News, Associated Press | 12/12/2011 | 2 | 2 | 2 | 3 | 1 |

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| Toronto police get 'sound cannons' for G20 | Yang, J., | 5/27/2010 | 2 | 2 | 2 | 3 | 1 |
| Inmate deaths reveal “torturous” use of Tasers | Eisler, P., Reid, T., and Smith, G., Reuters | 12/6/2017 | 2 | 2 | 2 | 3 | 1 and 2 |
| Army Orders Pain Ray Trucks; New Report Shows 'Potential for Death' | Hambling, D., ABC News | 10/11/2008 | 2 | 2 | 2 | 3 | 1 |
| As Taser warns of more and more risks, cities bear a burden in court | Reid, T., Eisler, P., Szep, J., Pell, M.B., Rueters | 8/23/2017 | 2 | 2 | 2 | 3 | 1 and 2 |
| Israelis unleash Scream at protest | Toronto Star | 6/6/2006 | 2 | 2 | 2 | 3 | 1 |
| Canadian police restrict stun gun use, saying the guns are potentially lethal | Los Angeles Times and Associated Press | 2/12/2009 | 2 | 2 | 2 | 3 | 1 and 2 |
| Nonlethal weapons touted for use on citizens | MSNBC and Associated Press | 9/12/2006 | 2 | 2 | 2 | 3 | 1 |
| Long-range Taser raises fears of shock and injury | Hambling, D., New Scientist | 10/28/2009 | 2 | 2 | 2 | 3 | 1 and 2 |
| Non-Lethal Weapons. A Progress Report | Metz, S. National Defense University | 6/23/1905 | 2 | 3 | 2 | 1 and 2 | 1 and 2 |
| The Human Rights Impact of Less Lethal Weapons and other Law Enforcement Equipment | Amnesty International and OMEGA Research Foundation | 2015 | 2 | 3 | 3 | 2 | 1 and 2 |

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| Nonlethality: A Global Strategy | Morris, J. | 2009 | 1 | 3 | 2 | 1 and 2 | 1 and 2 |
| Bradford Non-Lethal Weapons Research Project (BNLWRP): Research Report No. 8 | Davidson, N., and Lewer, N. | 3/1/2006 | 2 | 3 | 2 | 1 | 1 and 2 |
| Transfers and Transparency | Pavesi, I., Small Arms Survey | Jun-16 | 2 | 3 | 3 | 2 | 1 and 2 |
| Crowd Control Technologies: An appraisal of technologies for political control | OMEGA Research Foundation | Jun-00 | 1 | 3 | 3 | 2 | 1 and 2 |
| The Pain Merchants: Security equipment and its use in torture and other ill-treatment | Amnesty International and OMEGA Research Foundation | Dec-03 | 1 | 3 | 3 | 2 | 1 and 2 |
| South Africa 2010: Word Cup Special Issue: A Guide to Police and Security Equipment in South Africa | OMEGA Research Foundation | Jun-10 | 1 | 3 | 3 | 2 | 2 |
| Less Lethal Systems and the Appropriate Use of Force | Corney, N., OMEGA Research Foundation | 2011 | 1 | 3 | 3 | 2 | 1 |
| Grasping the Nettle: Ending Europe's Trade in Execution and Torture Technology | Amnesty International and OMEGA Research Foundation | May-15 | 2 | 3 | 3 | 2 | 2 |
| The Deployment of Law-enforcement Equipment | OMEGA Research Foundation, SIPRO and The Open Society Foundations | Sep-15 | 1 and 2 | 3 | 3 | 2 | 2 |
| Tear Gassing by Remote Control: The development and promotion of remotely operated means of delivering or dispersing riot control agents | OMEGA Research Foundation; BNLWRP | Nov-15 | 2 | 3 | 3 | 2 | 1 |

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| Use of Tear Gas on Peaceful Protesters by Council of Europe Member States | OMEGA Research Foundation | 2/25/2016 | 1 | 3 | 3 | 2 | 1 and 2 |
| Compliance through pain: Electric Shock equipment in South African Prisons | OMEGA Research Foundation and Institute for Security Studies | Jun-16 | 2 | 3 | 3 | 2 | 1 and 2 |
| Tools of torture? Use of electric shock equipment among African police | OMEGA Research Foundation and Institute for Security Studies | Jun-16 | 2 | 3 | 3 | 2 | 1 and 2 |
| The Use of Less Lethal and Restraint Equipment (Electro-Shock Devices, Teargas, Batons, Leg-Cuffs and Belly-Chains) by Correctional Officials | OMEGA Research Foundation and Institute for Security Studies | 12/3/2010 | 1 and 2 | 3 | 3 | 2 | 1 |
| Omega Research Foundation briefing for the Special Rapporteur on extrajudicial, summary, or arbitrary executions: police use of force and less lethal weaponry | OMEGA Research Foundation | Oct-11 | 1 | 3 | 3 | 2 | 1 |
| Towards standards for the appropriate selection and use of less lethal technologies and restraints | Dymond, A., OMEGA Research Foundation | Jun-12 | 1 | 3 | 3 | 2 | 1 |
| Drawing the line: Regulation of "wide area" riot control agent delivery mechanisms under the Chemical Weapons Convention | Crowley, M., OMEGA Research Foundation | Apr-03 | 1 | 3 | 3 | 2 | 1 and 2 |

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| Final Technical Report Draft: Assessing Police Use of Force Policy and Outcomes | Terrill, W., Paoline III, J., and Ingram, J. | Feb-12 | 1 and 2 | 3 | 2 | 1 and 2 | 1 and 2 |
| USA: Excessive and Lethal Force? Amnesty International's Concerns About Deaths and Ill-Treatment Involving Police Use of Tasers | Amnesty International | Oct-07 | 2 | 3 | 3 | 2 | 1 |
| "Kill Those Criminals": Security Forces Violations in Kenya's August 2017 Elections | Human Rights Watch | 10/15/2017 | 2 | 3 | 3 | 2 | 1 and 2 |
| "Fuel on the Fire": Security Force Response to the 2016 Irreecha Cultural Festival | Human Rights Watch | 9/19/2017 | 2 | 3 | 3 | 2 | 1 and 2 |
| "Good Cops Are Afraid": The Toll of Unchecked Police Violence in Rio de Janeiro | Human Rights Watch | 7/7/2016 | 2 | 3 | 3 | 2 | 1 and 2 |
| Blood on the Streets: The Use of Excessive Force During Bangladesh Protests | Human Rights Watch | 8/1/2013 | 2 | 3 | 3 | 2 | 1 and 2 |
| "Between Two Sets of Guns": Attacks on Civil Society Activists in India's Maoist Conflict | Human Rights Watch | 7/30/2012 | 2 | 3 | 3 | 2 | 1 and 2 |
| Autonomous Weapon Systems: Implications of Increasing Autonomy in the Critical Functions of Weapons | International Committee of the Red Cross | 3/16/2016 | 1 | 3 | 3 | 2 | 1 |
| International Rules and Standards for Policing | International Committee of the Red Cross | Jan-14 | 2 | 3 | 3 | 2 | 1 |

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| Violence and the Use of Force | International Committee of the Red Cross | Sep-15 | 2 | 3 | 3 | 2 | 1 |
| Understanding the Arms Trade Treaty: From a Humanitarian Perspective | international Committee of the Red Cross | Sep-16 | 2 | 3 | 3 | 2 | 1 |
| Human Rights Aspects of Thailand's Draft Assembly Act | Amnesty International | Apr-17 | 2 | 3 | 3 | 2 | 1 |
| Thailand's Internal Security Act: Risking the Rule of Law? | International Commission of Jurists | Feb-10 | 2 | 3 | 3 | 2 | 1 and 2 |