Non-Lethal Weapons as Legitimizing Forces?: Technology, Politics and the Management of Conflict (London: Frank Cass, 2003).

This was an initial draft version of the Introduction, minus the referencing.

Introduction

The use of force is a moral, social and medical problem. When members of the police, military, paramilitary, non-state groups or individuals apply force, questions need to be asked whether it was effective, necessary and proportional. Evaluations of such matters are often tied up with the effects of particular forms of weaponry and equipment. Consider the following account of the operation of United States (US) forces in Somalia and the choices made about the appropriate force response:
In early 1995, some U.S. Marines were supplied with so-called dazzling lasers. The idea was to inflict as little harm as possible if Somalis turned hostile. But the Marines' commander then decided that the lasers should be "de-tuned" to prevent the chance of their blinding citizens. With their intensity thus diminished, they could be used only for designating or illuminating targets.

On March 1, 1995, commandos of U.S. Navy SEAL Team 5 were positioned at the south end of Mogadishu airport. At 7 a.m., a technician from the Air Force's Phillips Laboratory, developer of the lasers, used one to illuminate a Somali man armed with a rocket-propelled grenade. A SEAL sniper shot and killed the Somali. There was no question the Somali was aiming at the SEALs. But the decision not to use the laser to dazzle or temporarily blind the man irks some of the nonlethal-team members. "We were not allowed to disable these guys because that was considered inhumane", said one. "Putting a bullet in their head is somehow more humane?".

During the same year much deliberation had taken place in an international forum regarding similar technology. State Parties of the United Nation's Convention on Certain Conventional Weapons discussed the possibility of prohibiting blinding lasers. In previous years, organizations such as Human Rights Watch and the International Committee of the Red Cross (ICRC) along with some governments had pressed for controls on the use of these weapons. Against the initial opposition from the US and United Kingdom (UK), advocates of restrictions argued that blinding lasers would cause superfluous injury and unnecessary suffering and thus be prohibited under international humanitarian law. In part, the logic given for this was somewhat counter-intuitive. Humanitarian groups argued that the causalities incurred during war by conventional weapons were not as severe, frequent or long term as might be assumed. Whatever the intent of soldiers on the ground or military commanders in bunkers, the lethality of warfare with conventional arms should not be taken for granted. In contrast, the deployment of tools designed to blind opened up the potential for permanent damage that would almost certainly bring severe physical, psychological and financial consequences. However horrific the loss of a limb or the reduction in mobility caused by shrapnel or bullet wounds, no prosthesis exists to aid those who cannot see. The question which need to be addressed then was not whether it was better to be dead or blind, but whether the almost certainty of blinding was more inhumane than the possibility of injury or death through conventional arms.

Such augments followed from various experts meetings in the late 1980s and early 1990s held by the ICRC to determine the threat posed by laser technology. Silent, portable, low cost, and effective, blinding lasers were presented as step too far. The possible use of these weapons outside of war, say in terrorists attacks on civilian populations, was so disturbing that governments had to act before the technology became diffused. In the end, calls for restraint prevailed. In September 1995 the US Department of Defense announced a ban on development of lasers specifically designed to cause blinding to unenhanced vision. In October of the same year State Parties of the Convention on Certain Conventional Weapons adopted a new protocol that placed limits on blinding lasers.

The quote about experiences in Somalia asks the reader to consider the appropriateness of general restrictions on weapons in relation to an alternative context where the class of technology in question is presented in a rather different light. Here a form of merely dazzling non-lethal weaponry offers a more humane force option. The account is premised on a number of assumptions about the intent of the users of weapons, the likely operation and effects of the dazzlers in specific situations, and the necessity of their use therein. The possible development of dazzling weapons raises a number of questions: How can dazzling and blinding lasers be differentiated? What would the deployment of the former mean for attempts to prohibit the latter? In the chaotic situations of conflict, how likely are dazzlers to inadvertently blind civilians and others? Who is competent to judge such matters? Various questions could be asked about the merits of non-lethal weapons in specific examples. In the case above, could the SEALs have ascertained whether the Somali was 'temporarily' blinded before needing to resort to deadly force? What would have happened until and when the temporary effects ended? Thus, the manner in which the legitimacy of particular force options is decided is a matter of concern and much potential debate.

This book addresses the legitimacy of weaponry in conflict situations. It examines past, present and future intersections of expertise, politics, science and technology through a consideration of the growing attention paid to non-lethal weapons in military, police and incarceration circles. But what does it mean to speak of force as having legitimacy? Beetham has suggested actions are legitimate to the extent they conform to established rules, those rules can be justified by reference to beliefs shared by both the dominant and the subordinate, and there is evidence of consent by the subordinate to the particular power relation. This would require, for instance, force be applied in accordance with the limits of the law and that these rules only sanctioned force that was necessary and proportionate. Such determinations, in turn, depend on assessments of the likely effects. Moreover though, new weapons alter standards for what counts as proportionate and appropriate responses by helping to define the range of possible actions.

While the meaning and appropriateness of the term 'non-lethal' is much contested, as a starting point these are weapons that are supposed to minimize or at least reduce the severity of injury. In doing so they are meant to entail comparatively more acceptable options than other force means. Today there are a variety of non-lethals in the arsenal of Western police and military forces, and research and development continues apace into new ones. Among the current options include kinetic projectile munitions such as plastic bullets; chemical irritants such as tear gas; and electroshock devices such as stun guns. To believe some, these 'old fashion' technologies are soon to give way to a far broader spectrum of possibilities: acoustic weapons which shatter windows and cause internal damage; electromagnetic pulse beams designed to knock individuals down and cause seizures; and chemical agents which act as

calmatives. Add to these old and new weapons innovations in the delivery systems and the combination of different types of non-lethals (for instance, projectiles which release chemical irritants on impact), and it is possible to imagine something of the diversity of potential force options. In recent years, this form of weaponry figured prominently in the highly publicized policing of public protests in Seattle and Genoa, though their possible areas of deployment extend well beyond such instances to include routine policing, incarceration, and military interventions.

Despite attempts to foster a positive image of this class of weapons by proponents, their merits are disputed. The use of force by security apparatuses of the state and others is often contentious and the utilization of particular weapons in such acts has been a source of some unease. From the hills of Los Angeles to the streets of Nairobi, concerns have been voiced. Here the potential for abuse with non-lethals, their less than harmless effects, their unintentional consequences, and their potential to be used as a complement to 'lethal' force makes them less than benign.

This book considers how the promise of technology is created, sustained and questioned. I wish to illustrate how a detailed examination of non-lethal weaponry requires addressing a host of issues about the functioning of expertise, the relations between citizens and organizations of the state, the trust held in modern institutions, and the regulation of technology. In these matters considerations of power and authority loom large. The reader is asked to view accounts of non-lethal weapons as attempts to both inform and persuade audiences about the moral standing of technology and those who utilize it. Non-lethal weapons are bound up with efforts to negotiate the respectability of the use of force, where the standards by which such acts are judged are themselves in flux. Discussions about the merits of non-lethal weapons are often characterized by uncertainty over the facts of the matter, where 'technical' issues mixed quite readily with 'ethical' appraisals. Disagreements about the merits of such weapons hinge on interpretations and judgments. Through an examination of the claims and counterclaims about this form of weaponry, this book will illustrate how the technology functions as a site of political negotiation.

Some Initial Posturing

This book takes as its starting point for analysis the ambivalence of non-lethal weapons. It is generally acknowledged that any technology can be used for good or bad purposes. The suppression of peaceful political dissent is likely to be viewed quite unfavorably by most compared to, say, attempts to defend police officers from belligerents intent on violence. In between these extremes though there are vexing questions about what constitutes acceptable force and how such evaluations can be made. Instances of the use of force are occasions for multiple interpretations of what is happening and why. Just whether someone should be labeled a rioter, a potential security threat, a peaceful protester, and an innocent bystander is often contested.

Still, for some individuals any recourse to weapons is regrettable. The idea of a non-lethal weapon might appear a contradiction in terms if not an anathema. Weapons are by definition designed or used to inflict injury and thereby possibly cause death. Yet, as long as one maintains that the resort to some form of force is necessary in some situations, questions must be asked about what that should be. A prohibition against all non-lethal weapons presumably would include devices such as the police baton. Even for the harshest critic is likely to acknowledge non-lethal weapons could have advantages in some circumstances. In the US, the phrase 'suicide by cop' has emerged to describe when individuals with weapons

confront the police in an effort to provoke them to fire. In such situations there are pressing questions about the most appropriate response.

Much of the ambivalence of 'non-lethal weapons' derives from the difficulty of classifying the disorderly and diverse set of practices and technologies associated with the term. Classification is itself an attempt to suppress messiness of the world and provide a basis for comprehension and evaluation. There are many ambiguities associated with this class of weapons that make moral determinations problematic. What counts as a non-lethal weapon is unclear. By definition a weapon is intended to inflict damage and therefore has the potential to kill, so categorizing a particular weapon as lethal or non-lethal would be difficult even if there were consensus on the nature of the potential risks entailed. As will be illustrated in this book, though, such a consensus cannot be taken for granted. Related questions arise in disputes about where to cast blame when things go wrong, whether that be with the technology, its user, the intended target, or the volatility of the situations in question. Still further questions can be asked about the right criteria for assessing non-lethals; whether that is merely in terms of the direct physical effects or whether other factors, such as the possible consequences for the escalation of violence, ought be considered. In short, there are considerable evaluation and classification problems.

In starting with a recognition of the ambivalence of these weapons, I do not wish to simply suggest that there are different views about their acceptability and appropriateness. While this is apparent, it is not necessarily helpful observation. Rather, in drawing attention to matters of ambivalence and ambiguity, I want to set the analysis of this book on a particular footing. Ambivalence is not treated as innate properties of these technologies or situations; rather it is the outcome of social and organizational processes. Accounts about this class of weapons are attempts to establish ethical relations between technology and humans. How this is done is a matter that requires attention. As suggested in the case of dazzling and blinding lasers, any assessment of non-lethal force begs questions about what options are being compared, by what criteria, in relation to what circumstances and by whom. Complex technical, legal, medical and operational factors can enter into calculations regarding the appropriateness and acceptability of the use of force. The ambivalence of non-lethals raises a number of questions regarding how statements about them are framed and the strategies by which such framings are advanced.

Moreover, the ambivalence of non-lethal weapons matters in the way in which questions about responsibility, praise and blame are negotiated. When a technology with uncertain or disputed effects, whose proper use requires following highly proscriptive rules, is introduced into a volatile setting then there are important questions about how disputes about the appropriateness of force are managed. Cavalier attempts to simply adjudicate on the merits of weapons once and for all are bound to be open to question.

This orientation contrasts with attempts to advance a definite reading of technology, in terms of say its 'real' effects and whether a particular weapon is actually lethal or non-lethal. While such appraisals are obviously important and necessary, this book seeks to steps back from specific claims to consider their basis and implications. This is important because installments of the latest technical or operational information about particular weapons alone often offer little hope of clarifying, let alone resolving, disputes. There are important issues at stake regarding how we discuss technology and how debates are conducted.
In this book I appraise the promise and threat posed by non-lethal weapons both in terms of how such technologies are instruments of control for acting in the world and how

characterizations of them are actively managed. I argue that these weapons need to be understood in terms of both these two fundamentally intertwined aspects. Without a careful examination of how accounts of these devices are presented and handled, the analysis risks taking for granted issues that might otherwise be questioned.

The contingencies and assumptions entailed with how notions about the legitimacy of non-lethal weapons are advanced will be put under close scrutiny in this book. I consider how organizations advance particular types of arguments and the justifications for such positions. In doing so, my role is not simply one of apologist for the technology, opposed critic to it, or technician merely try to clarify the issues at stake without taking any position on the relative merits of arguments.

It is not the intention of this analysis to try an authoritatively adjudication of contentious issues. I do not want to blind readers with a rendition of the 'real' facts of the matter about a wide range of issues if those could be determined authoritatively. Rather I intend to acknowledge the contingencies and negotiations at work in any assessment. Particular assessments of the merits of non-lethal weapons are advanced, while also trying to acknowledge more fundamental issues at stake about uncertainty, disagreement and controversy. In surveying the recent rise of non-lethal weapons, a skeptical orientation is given to claims about individual devices and the overall merits of the class of technology in general. 'Skeptical' in the sense that it is prudent to unpack the range of claims and counterclaims made.

Adopting this position, it is suggested that taking the uncertainties and disputes associated with this technology as a topic of analysis, rather than trying to offer a definitive or resolved account of weapons, can provide a number of insights. As will be argued more fully in later chapters, in assessments of weapons, technology in general, or any matter there are various ways in which implicit and explicit framings are given to the topic in hand. Throughout questions are raised about what evidence and inferences would be required to assert particular assessments of non-lethal weapons. In this way the book attempts to offer a persuasive account of non-lethals while trying to persuade the reader about how to approach the study of technology.

Rationale for Structure

To date non-lethal weapons have been of limited concern to researchers outside of those agencies concerned with deploying them and those groups and others that question them. Of the academic work that does exist, much of it stems from peace and security studies, where the main interest is in peacekeeping, or more broadly, applications of this technology in warfare. To the extent criminologists have examined this weaponry, they have been preoccupied with meeting the managerial agenda of their funders in asking questions about the effectiveness of different devices. Recently, legal scholars have begun to ask how the introduction of non-lethals might affect or be controlled by existing international and national laws.

In this book a diverse range of technologies on offer under the banner of 'non-lethal weaponry' are examined from their initial justifications to their operational deployment. In doing so a variety of issues will be touched on that are themselves worthy of a far more detailed consideration than is on offer here. Topics such as the weapons acquisition in the military, the use of scientific standards for judging safety, policing cultures surrounding the

use of force, and the presentation of accounts of conflict in the media have been the topic of many books and could be the subject of many more. Furthermore, particular instances of deployment, such as political protests or conflicts, could be given detailed consideration.

The purpose here is to provide a window into a diverse set of issues. That window is framed by examining debates about non-lethals and following the arguments where they lead. This broad analysis can be justified on a number of grounds. As will be argued in later chapters, developing and utilizing particular weapons with some degree of legitimacy requires the creation of audiences receptive to such initiatives. In considering the growing importance of non-lethals it is prudent to not only look at specific innovations, but also the wider promises on offer with this class of weapons. Commenting on the 'successfulness' or 'unsuccessfulness' of the introduction of a particular device, and the meaning these terms, requires an institutional as well as technical analysis sensitive to both general and specific promises made.

This broad analysis also enables connections to be made between various stages in the development process that might otherwise be missed. In doing so, it is able to consider how claims about technologies made in one setting get translated into others. For instance, only examining the operational use of a technology would fail to notice how the initial justifications offered change and how the scope for deployments expands or contracts over time as an innovation matures. A narrow analysis also risks glossing over important questions about the functioning and inter-relation of expertise. Toxicologists with a scientific training often look into on likely health effects; security personnel might be asked to comment on the practicality of the technology in specific situations; criminologists and others might be commissioned to assess the impacts of devices on issues such as the number of assaults to officers; and clinicians might document the nature of injuries and deaths incurred. While it is necessary for experts to work in limited domains of competence, the argument presented here brings together a variety of claims made about non-lethals in order to assess them in relation to one another.

In doing so, however, the obvious risk exists of making poorly thought out claims across a number of ill-understood areas. I am not a solider, toxicologist, a police chief, or a lawyer, but rather a social scientist with a fairly broad range of interests within that domain. The situation calls for some caution, but there is much insight to be gained from venturing outside of well-trodden ground. It is a matter for the reader to decide if this has been done competently and to venture outside of the argument presented and make further assessments about its relevance.

As a book that takes as its topic a wide range of concerns about a class of technology, there is also the danger that the argument will be rather thin in places. The chapters ahead mix general overview of technological areas (Parts I and II) with more detailed case studies (Part III). The empirical basis for this book could always be more thorough, and the reader will no doubt want further information about the technologies detailed than is provided. Indeed, one of the central contentions I want to advance is that when one starts unpacking disputes about the merits of particular non-lethal weapons, the desire for more and more information than is typically on offer becomes readily apparent. In such a situation, an analysis that evokes a wide range of connections and interpretations offers the potential to be provocative and challenging.

The topic of non-lethal weapons and related concerns about the use of technology in the

application of force are not only worthy of study because they break new topical ground. They also press us to re-examine a number of conceptual issues in the social sciences. So, how authority is exercised by security force tells us a good deal about the relation between the state and its citizens as well as the relation between states, but these cannot be understood without a consideration of the means of exercising authority. As detailed below, themes in policing, criminology, peace and security studies, politics, technology studies, and policy analysis are integrated into the chapters. This book though is primarily an attempt to analyze the legitimacy of a class of technology, so I will not spend a great deal of effort engaging in specialized theoretical debates, though this analysis is immersed in them. Those in search of more thorough considerations of some of the themes discussed can follow the references out elsewhere.

Inevitably though, some issues will be given more attention than others in the chapters that follow. While activities in a number of countries are considered, most of the analysis is focused on developments in the US and the UK. In many respects the US is the world leader in terms of the state its technology and volume of commercial interest. The UK has a long history of the use of non-lethals because of its colonial history and more recent conflicts in Northern Ireland. In the case of non-lethals the UK also plays a familiar role of bridging between continental Europe and North America. There are certain substantive limitations to this book as well. Anti-personnel applications are given far more attention than anti-material ones (see Chapter 3).

An Overview of the Chapters

This book is divided into four parts and eleven chapters. The organization is designed to bring an ever-widening range of considerations to bear. The chapters in Part I provide an overview of non-lethals as well as an initial elaboration of how this analysis approaches the study of technology. Chapter 2 begins by asking a seemingly straightforward question regarding non-lethal weapons: what are they? Far from being a clear-cut issue, however, a detailed consideration of this question raises important issues about how we understand the relation between technology and its situations of use. Drawing on insights regarding the relationship between politics and technology developed by sociologists of technology such as Steve Woolgar and Keith Grint, this chapter establishes the importance of examining how claims are made about technology and why particular stories win out over others. This chapter begins to elaborate themes that are taken up in later chapters about context, claims, and classifications as well as agency, assumptions, and associations.

Following from these considerations, the Chapter 3 provides a fairly conventional account of current and proposed non-lethals. Such weapons are said to offer the possibility of disorientating, dazzling, disabling, and calming rather than the shattering bones or tearing flesh. In reciting these accounts, the organizations and funding programs in place to foster non-lethal weapons are surveyed. Following on from points raised in Chapter 2, this one draws attention to the commitments of particular types of descriptions, the role of interpretation and the bounds of debate.

Chapter 4 outlines the assertions made regarding the range of wide-scale environmental changes which are thought to require additional non-lethal responses: the growing importance of peacekeeping, the changing character of warfare, the continuing threats to domestic order, and the growing unacceptability of the use of force. This chapter considers how such claims are marshaled to justify the development and deployment of non-lethals. It describes the

multiple promises accorded to non-lethals at the strategic and tactical levels. By way of contrast, alternative schools of thought from those associated with advocates are discussed. Critics of the technology turn many of the statements of proponents on their head. Divergent interpretations derive from fundamental differences in the framing given to situations and the inferences made by commentators. Through noting the importance of such issues, this chapter highlights the need to interrogate the basis of evaluations and the limitations therein.

Building on the earlier discussion, the chapters of Part II investigate the main areas of discussion about non-lethal weaponry: their effects, their operational use, and their control. Appeals to science are often evoked to establish authoritative determinations about the relative harm caused by these devices. Through a series of studies of existing non-lethals, Chapter 5 outlines claims and counterclaims made about the safety of specific weapons and how notions about their effects have been used to justify or criticize their deployment. It is argued that even if one takes well established technology, like chemical irritants or kinetic energy munitions, it is possible to raise a host of concerns about their safety. In general, what can be said is that the existing publicly available evidence about the safety of particular devices is often weak or mixed and not able to resolve the 'facts of the matter' in an authoritative fashion. The appraisal of weapons is bound up with processes for defining, identifying, and interpreting risks that are conditional and speculative.

Whatever lab tests about safety indicate, the appropriate use of non-lethals requires following certain rules that define standards of acceptable force. Chapter 6 discusses a few contested operational deployments of non-lethal weapons in the US, Israel and the Occupied Territories and Northern Ireland. In doing so it considers how controversies about particular situations unfold and what implications these have for questions about the legitimacy and proper control of the technology. The possibility or lack of adherence to rules in the use of force is given some attention. As will become apparent, even when there is agreement about unfortunate injuries and 'deviations' from protocols, the actions that should follow are hotly disputed. In such disputes, the importance of context is multi-faceted and varying definitions of it are drawn upon to make sense of particular interpretations.

Chapter 7 then follows on from the other chapters in Part II to consider attempts to govern and restrict the proliferation and development of non-lethals. International treaties and obligations are examined as they relate to the control of different types of weapons. The application of general principles and prescriptions about the proper conduct of conflict to specific uses of non-lethals raises a basic problem: when is it justifiable to cut through complex assemblages of individuals and technologies in order to offer definitive assessments about what prohibitions ought to be in place. Various themes are raised in relation to this problem such as the policing of controls, appraisals of trust, and the negotiation of classifications.

Parts I and II identify a number of key issues and tensions associated with non-lethal weapons, these are then elaborated further through the use of case studies that cover military, police, and prison situations in Part III. Chapter 8 evaluates the deployment of incapacitant sprays for routine policing in the UK. This topic provides something of a 'best case' scenario for the potential of non-lethal weapons. As opposed to highly charged public order events or military interventions, routine policing does not evoke the same degree of controversy. In addition, the supposed 'consensual' nature of policing in Britain and the previous experiences with sprays outside of the UK should have meant that their introduction was fairly unproblematic. This chapter examines the dynamics surrounding the introduction and

deployment of the devices. In doing so, significant doubts are raised about the robustness of the precautions taken and the wisdom of decisions made. More generally though, this chapter illustrates how the uncertainties associated with the sprays were handled and how these boar on determinations of who was responsible for ensuring their appropriate use at an operational level. In doing so, many of the core conceptual themes discussed in the book are drawn upon.

Chapter 9 analyses a recent major non-lethals initiative in the US: the introduction of electroshock stun guns and forms of pepper spray to all detention officers in Maricopa County, Arizona jails. This was first such trial in the US and has been billed as a major success story by some. Yet, upon closer examination the merits of the trial are far less certain. Various official and unofficial evaluations were undertaken that made conflicting assessments about the trial and how they ought to be appraised. It examining this, Chapter 9 considers how the assessment of technology can be approached when the facts are disputed and uncertain. A major theme, and one that follows from previous chapters, is the importance of recognizing the inter-relation between 'technology' and its 'context' in the production of credible claims.

Chapter 10 takes as its topic the possibilities for existing and future non-lethals in humanitarian interventions; particularly in relation to changes in the overall strategic level of warfare. A variety of prominent theoretical scenarios are described and analyzed, including those by the US Marines and the US Council of Foreign Relations. The assumptions beyond these are interrogated in light of past discussions in the book. Following from this, the recent NATO intervention into Kosovo is drawn on as an example for thinking through the possible strategic and tactical implications of non-lethals. Among proponents of non-lethal weapons, Kosovo is often presented as a lost opportunity to introduce a new form of warfare. Various aspects surrounding the public relations handling of this intervention are examined so as to consider what implication non-lethals are likely to have on the character and legitimacy of similar conflicts in the future. Drawing on previous arguments, Chapter 11 concludes with a summary discussion and proposes various policy recommendations.