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Targeting: The Challenges of Modern Warfare

Paul A.L. Ducheine
Michael N. Schmitt
Frans P.B. Osinga *Editors*

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Foreword

Targeting is not only the most vital, but also one of the most challenging processes during military operations. When targeting, our efforts should be focused on successfully engaging identified and prioritized targets on both the operational "joint" level and the tactical level. The targeting process has evolved from having a primarily kinetic/lethal emphasis, with hardly any consideration for collateral damage, to our current operational domain, characterized by operations among the people and heavily influenced by modern (social) media. In addition, targeting is no longer a process primarily focusing on air assets, but over the past two decades has come to incorporate a host of military engagement capabilities.

As Commander of Regional Command South in the ISAF-operation in Afghanistan, I experienced this change of the environment in which the targeting process had to be used. For example, rules of engagement became more restrictive and the availability of resources increased. In addition, armed unmanned assets entered into the inventory. Throughout, the watchful eyes of the social and regular media were constantly upon us, impacting on our military operations. As a primary reaction, our targeting process tended to shift from one that attached scarce resources to identified and prioritized targets to a process that primarily avoided collateral damage. This was not the solution. We found that the information domain had to be included as well.

These developments have implications. Incorporating the information domain into the targeting process broadens the definition of a "target". The availability of unmanned resources expands the inventory of assets. And what about the near future when capacity for cyber operations and perhaps even autonomous systems become available?

The changes create political, legal, and ethical issues. Some of these concerns are based on a misunderstanding of the targeting process, but others require more in-depth discussion, as well as guidance and decisions from politicians and

military leaders. *Targeting: The Challenges of Modern Warfare* contributes to this dialogue and, in doing so, creates more clarity for our men and women on operations.

Mart de Kruif
Lieutenant General
Commander of the Royal Netherlands Army
(Former Commander RC-South ISAF, 2008–2009)

Preface

Issues about targeting have always been central to warfighting, but in the twenty-first century a variety of factors have conspired to make this basic task an extraordinarily complex endeavour. Of course, there has been the emergence of ever-more lethal technology that can create a much greater potential for unintended consequences, particularly with respect to the incidental death or injury of civilians and damage or destruction of their property. At the same time however, technology has permitted the emergence of weaponry capable of being used in an extraordinarily precise manner. Still, targeting issues continue to bedevil commanders, policymakers, and their lawyers.

The reason for this is in great part due to technological and organizational developments in the international media community which very often permit the almost instantaneous broadcast of battlefield events—to include the graphic results of targeting—around the globe. In addition, we are increasingly seeing soldiers and others equipped with either official or unofficial video recording devices that likewise allow the capture of combat in real time. These too have a propensity to find their way into the global information marketplace, often without official approval.

In short, publics around the world have a much greater opportunity to view the consequences of targeting in ongoing conflicts, and do so before governmental authorities have an opportunity to evaluate what is appearing on television screens and computer monitors around the world. It is not uncommon for such visual depictions to be accompanied by informed or—often—*uninformed* commentary as to the legitimacy of the attack. At the same time, there is a greater cognizance of international law, to some extent because of its utility in facilitating transnational business activities occasioned by the rise of globalized commerce. Collectively, these factors result in a world where strict adherence to the rule of law in armed conflict is expected and required.

It is this unique and, in many ways, unprecedented, environment that makes this volume so exceptionally valuable. Targeting is the *sine qua non* of the international law of armed conflict (or international humanitarian law, as some call it)

because intrinsic to it are the central tenets of civilized combat: distinction, proportionality, military necessity, and humanity.

There was a time, perhaps, that adhering to these principles was a relatively simple thing. Belligerents wore uniforms and military objects were so unique that there was typically little dispute as to the propriety of their designation as lawful targets.

Today, however, much of that has changed. Contemporary conflicts frequently involve nonstate actors who wear civilian clothing and embed themselves in civilian areas. What is more is that many of the technologies essential to modern warfighting are "dual use," that is, as valuable and indispensable to civilians as they are to belligerent militaries. Paralleling this development is the fielding, as already noted, of weaponry capable of extraordinary precision.

As a result, force very often can be applied with an accuracy that could be only dreamed about in earlier eras. Yet, despite the seeming progress of the ability to scrupulously honor the demands of legal and moral targeting, controversy about targeting has, if anything, actually increased. In part, this may be the result of modern militaries being a victim of their own success, for widely advertised surveillance and precision strike capabilities have raised public expectations well beyond what the law requires, and perhaps even beyond what the chaos and friction of war would ever be able to satisfy.

What this volume does is to gather together in one place the very best of the current thinking about targeting. It is intellectually holistic and comprehensive in that it not only lays out the history and context of targeting, it details its application in specific circumstances.

Beyond the law itself, it grapples with the thorny ethical, technical, and political issues associated with targeting decisions, especially in a coalition environment where differing perspectives about particular operations can result in constraining policies, to include guidelines not necessarily mandated by the law of armed conflict. Furthermore, the book deals with not just the law, but with the procedures applicable to the law's actual operations in various armed conflict situations.

The end product is a volume that is not only a phenomenal work of legal and military scholarship, it is written and organized in a way that is readily accessible not just to lawyers, but also to nonlawyers, including commanders, policymakers, and others involved in the art of war. What is more is that it will be extremely useful to members of the media and other opinion makers because it clarifies the often misunderstood legal aspects of the law of targeting. Wherever one stands on the use of force in a particular circumstance, the value and legitimacy of whatever position is taken must be built on a clear understanding of the law as it is.

What differentiates this book from other efforts to address (the law of) targeting is that it is informed by authors who have real-world experience dealing with the complexity of targeting in actual combat situations. While there are certainly many distinguished scholars around the world whose erudition as to the law, *per*

se, cannot be questioned, their assessments may be insufficiently grounded in a keen understanding of the technical capabilities of the weaponry and the methodologies of their use in armed conflict.

Importantly, this book is not just a retrospective as to the law of targeting, but one that looks ahead to grapple with what will surely be the next generation of targeting issues. These include questions arising from the development and fielding of autonomous weapons systems. While there is a movement afoot to develop an international consensus on barring the introduction of the weapons, it is this writer's view that not only will such efforts ultimately fail, their failure is actually desirable. Indeed, autonomous weapon systems have the potential, if properly used consonant with the law of armed conflict, to significantly increase the likelihood that force will be used in a way that minimizes not only the risk to civilians but also to combatants by decisively unhinging its warfighting capability without necessarily destroying every element of the same.

Of course, it is quite unlikely that every reader will agree with every position taken by every author in this book. Indeed, one should not expect that even within the book the authors will consistently agree with each other in every instance. That is the nature of a volume that aims to collect the very best thinking from the widest selection of experts. Yet, the book's organization makes it a ready reference for anyone confronted with these issues.

The killing of another human being even when permitted by international law can never be taken lightly. Of course, everyone—and particularly those in the armed forces—wishes that human nature might someday evolve to the point where conflicts can be resolved peaceably in a way that preserves human dignity and freedom. Regrettably, there is little to suggest that such a day is coming in time soon.

Until it does, we must live by the truism often attributed to Cicero that "only the dead have seen the end of war." That being the case, it is all the more important that at those times when force must be used in a just cause, it be applied in a way that comports to the law, serves the best interests of humanity, and honors the consciences of the men and women called upon to use it. To serve that noble end is the real purpose of this book.

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Professor Terry D. Gill is Professor of Military Law at the University of Amsterdam and the Netherlands Defence Academy and was first Assistant and later Associate Professor of Public International Law at Utrecht University from 1985 until 2013. He is Director of the Research Program on the Law of Armed Conflict and Peace Operations at the Amsterdam Centre for International Law and of the Netherlands Research Forum on the Law of Armed Conflict and Peace Operations (LACPO). He is Editor in Chief of the Yearbook of International Humanitarian Law and is on the editorial board of the Journal of Conflict and Security Law and the Journal of International Peacekeeping. He was Fulbright Visiting Scholar at Columbia University and Visiting Fellow at Cambridge University, the International Institute of Humanitarian Law (San Remo), University of Coimbra and University of Granada. Professor Gill is the co-editor/author of The Handbook of the International Law of Military Operations (Oxford University Press 2010) and of numerous publications in the areas of the use of force, international humanitarian law, and related topics.

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Chapter 1
Introduction

Paul A.L. Ducheine, Michael N. Schmitt and Frans P.B. Osinga

Abstract This book offers a multidisciplinary treatment of targeting. Historically, destruction of enemy forces and equipment has been the primary, albeit not exclusive, means of securing ultimate victory. Today, after a long evolutionary process and enabled by technological developments, the contemporary effects-based approach in targeting aims to achieve specified effects on and beyond the battlefield. It involves 'affecting' a variety of intended audiences through a combination of military and other means and methods of warfare which vary from classic military kinetic lethal actions, such as employing bombs, guns or torpedoes, to 'unorthodox' non-military, non-kinetic and non-lethal activities like financial actions, lawfare and information operations. This volume comprises three parts. Part I explores the context of targeting, covers the evolution of targeting and explains the current targeting process and characteristics. Part II offers an overview of the legal and ethical constraints on targeting as an operational process. Part III surveys contemporary issues in targeting such as the potential advent of autonomous weapon systems, 'non-kinetic' targeting, targeting in multinational military operations and leadership decapitation in counter-terrorism operations. It is intended for use in military training and educational programmes, as well as in Bachelor and Master degree-level courses on topics such as War Studies and Strategic Studies.

Keywords Targeting · Warfare · Military operations · Use of force · War

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1.1 Targeting

To date, robust assessments of contemporary targeting practice and theory have been hobbled by the propensity of the various disciplines involved to speak only to members of their own community. This book responds to that impediment by offering a multidisciplinary treatment of the subject. It accordingly brings together experts from a variety of fields to consider targeting in a manner that is accessible to colleagues outside their respective disciplines.

Targeting can briefly be defined as the deliberate application of capabilities against targets to generate effects in order to achieve specific objectives. It is about the application of means (weapons) of warfare to affect addressees (people or objects) using a variety of methods (tactics) that create effects contributing to designated goals. Targeting, accordingly, represents the bridge between the ends and means of warfare.

The targeting process is not a nascent one, although it has evolved dramatically over time. Historically, destruction of enemy forces and equipment has been the primary, albeit not exclusive, means of securing ultimate victory. Attrition of enemy forces through their defeat on the battlefield was calculated to lead to the enemy's capitulation, either by rendering the enemy State unable to field and use its armed forces effectively or by inducing it to refrain from sending those forces into battle.

In this traditional approach, the relationship between targeting and its effects was linear and somewhat unsophisticated. While targeting made possible the achievement of effects at the tactical, operational and strategic levels of war when combined with manoeuvre and other components of warfare, such effects were typically achieved only when enemy forces faced each other on the battlefield.

The advent of aerial warfare in the twentieth century dramatically altered this dynamic. It allowed a belligerent's forces to leap beyond the front line and thereby extend the conflict into the enemy's heartland. This capability made possible targeting strategies that were non-linear, direct and sophisticated in design. Such strategies shortened the link between targeting and the enemy's decision-making processes.

Achieving effects that did not directly relate to an enemy's military wherewithal was not an entirely new phenomenon. The classic examples of doing so were blockade at sea and siege on land. However, with the advent of long-range aircraft, only the laws of neutrality limited the geographical scope of the battlefield.

The first full employment of this new approach was the strategic bombing campaigns in World War II. Of course, the shift in approach did not signal the end of targeting at the tactical level. But conceptually, military thinkers began to view targeting less as simply a way to denude the enemy forces of their battlefield capability and more as one of achieving particular effects, whether those effects were framed in terms of immediate destruction of enemy forces or achieving second- or third-order results that optimized operational and strategic-level objectives. Today, targeting as a means of realizing specified effects characterizes military operations in all military domains—land, sea, air, space, and cyber—and on all levels of command—strategic, operational and tactical.

In recent decades, military operations have moved beyond the realm of warfare proper to include, for instance, the generation of effects during peace support and stabilization operations. Such operations necessitate the application of the same effects-based approach that has been fully embraced in traditional combat during an armed conflict. Consequently, targeting is now employed to produce a wide array of effects serving a variety of purposes. These ends can be of a military nature, but may also include political, economic, social, or psychological ones; all are intended to somehow contribute to overarching express or implied goals of the State conducting a targeting operation. To paraphrase Clausewitz, effects-based targeting is the epitome of the continuation of politics by other means.

The effects-based approach involves ‘affecting’ intended addressees of an effect through a combination of military and other means and methods of warfare. These vary from classic military kinetic lethal actions, such as employing bombs, guns, or torpedoes, to ‘unorthodox’ non-military, non-kinetic, and non-lethal activities like financial actions, lawfare or information operations. In the twenty-first century, targeting can best be described as a comprehensive process for the coordinated use of all instruments available to a State that have the potential of generating desired effects.

A further important shift in operational targeting concepts involves the ‘addressees’ of targeting. By the effects-based approach, desired effects can operate on other than enemy combatants, civilians directly participating in hostilities, or military objects. Increasingly, addressees include civilians (who are protected against direct kinetic attack), stakeholders, neutral actors, and enemy supporters. This represents a paradigm shift in the sense that the development of non-kinetic methods and means of warfare such as cyber operations opens the legal door in some instances to the targeting of civilians and civilian objects, including those of non-belligerent States, despite their protection from kinetic attacks under international humanitarian law.

Considered in its entirety, targeting serves as a coordination and decision-support mechanism that synchronizes the application of military and non-military means to produce both physical and non-physical effects. It enables targeteers to plan and execute operations and activities comprehensively, efficiently, and effectively. At the same time, it enables commanders to use force (or assets and resources) more economically by providing them additional options with which to accomplish their mission. In many instances, the effects-based approach lends

itself to greater clarity by increasing the availability of transparent mission accomplishment options, thereby facilitating (ex post and ex ante) assessments of the legitimacy of activities and operations, as well as enhancing legal and operational accountability. The focus on effects, and the availability of more options, also simplifies the delineation of command and control (who does what) responsibilities and the distinction between supporting and supported tasks (who supports who). Finally, the effects-based approach allows the political, moral, and legal sensibilities of all States involved in a multi-national operation, to be better reflected in targeting operations.

As suggested above, the targeting process adapts to, and reflects, technological and social developments. Perhaps most illustrative in the technical context is the use of the digital domain and digital instruments alongside, or in lieu of, conventional weaponry. Responsiveness to social change has been illustrated in the Herculean efforts to mitigate and prevent collateral damage during armed conflict.

1.2 Purpose and Audience

This book takes a distinctly multidisciplinary perspective on targeting practice and theory. Therefore, it surveys contemporary conceptual and doctrinal approaches, current technological and organizational developments, and the strategic, military-operational, moral, and legal issues that targeting in the face of the evolving battlefield presents.

The project is a joint effort between the Netherlands Defence Academy (Faculty of Military Sciences) and the United States Naval War College (Stockton Center for the Study of International Law). The book is intended for use in military training and educational programmes, whether practical or academic in character, including those at Command and Staff and War Colleges. It is also meant for use in Bachelor and Master degree-level courses on such topics as War Studies and Strategic Studies. In addition to its use in the classroom, the book should prove useful for journalists, NGOs, international organizations, judicial bodies, and other individuals and entities that deal with the legal and practical ramifications of warfare in general, and targeting in particular. Sadly, much of today's public targeting debate evidences a distinct lack of understanding as to the goals, context, practice, and technological and operational underpinnings of targeting. For example, the abuse of the notion of collateral damage in public and governmental discussion is often the unintentional result of confusion about, and conflation of, the fields of international law, military operations, and policy implementation. This book aims to help alleviate such obstacles, thereby allowing the debates to occur at a more mature and sophisticated level.

1.3 Structure

This volume comprises three parts. Part I explores the targeting environment by addressing the context in which it occurs (Chap. 2), presenting the history and development of (aerial) targeting doctrine (Chap. 3), and explaining the current targeting process and characteristics (Chap. 4).

Part II offers an overview of the various constraints on targeting as an operational process. It examines the legal framework that applies to the resort to force by States—*ius ad bellum*—through military operations (Chap. 5). It first sets forth the legal framework applicable to the conduct of hostilities that is found in the law of armed conflict, also referred to as *ius in bello* or*Ius in bello* international humanitarian law (Chap. 6). However, law is not the only normative framework constraining (and enabling) targeting. Therefore, ethical constraints have also been considered (Chap. 7). Rules of Engagement (Chap. 8) bring together all of the factors shaping a targeting operation These rules are the operationalization of military, legal, diplomatic, political, moral, and other factors.

The book concludes with Part III, which surveys contemporary issues in targeting. Sparking hot debate with respect to methods and means of targeting is the possible advent of autonomous weapon systems in military operations (Chap. 9). The controversy is ongoing and shows no sign of being settled soon. The phenomenon of so-called 'non-kinetic' targeting is likewise a topic of current interest, particularly as a means of complementing or replacing traditional kinetic strikes (Chap. 10). Recent conflicts, particularly that in Afghanistan, have highlighted the complexity of organizing and executing targeting in multinational military operations and, thus, such targeting in that environment merits consideration in this book (Chap. 11). Finally, the very purpose of targeting—to generate designated effects by affecting selected addressees—is assessed using the case study of leadership decapitation in counter-terrorism operations, a topic that has generated controversy in virtually all of the disciplines associated with the practice and theory of targeting (Chap. 12).

Acknowledgments The authors would like to thank the contributors to this volume, all of whom came to the project armed with extensive academic or practical background in targeting … or both. It was our professional and personal pleasure to work with each of them. We would also like to thank Philip van Tongeren and Marjolijn Bastiaans at Asser Press for their valued support of this effort and Sasha Radin at the United States Naval War College for her tireless efforts throughout the editing process.

Finally, we hope this work contributes to the realization of the goal to which every member of every nation's armed forces must commit him or herself—the effective and efficient achievement of legitimate military objectives in a manner that minimizes the inevitable destruction and suffering that attends warfare.

Part I
Context

Chapter 2
Targeting in Context

Christopher Coker

Abstract This essay discusses three aspects of the targeting challenge from the time of the ancient Greeks: the 'who', 'what', and 'how'. With respect to the first, we would appear to have broken with past convention and adopted a policy of targeted killings of enemy commanders or political leaders. We have done so in response to a demand of the hour made possible by technology—the need to manage risks. Targeting has become a risk management exercise in all but name. With regard to the second, we are trying to be more precise when aiming at the centre of gravity and to reduce collateral damage to a minimum. We are trying, in a word, to be more 'humane'. And with respect to the last, technology now allows us to target from a distance without endangering military personnel, at the risk, however, of producing a problem never before encountered in war: dissociation.

Keywords Drone · Risk · Targeted killing · Surveillance · Centre of gravity · Humane · Dissociation

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2.1 Introduction

In a passage from Thucydides' *History of the Peloponnesian War*, we find a brief exchange between a Spartan prisoner of war and an Athenian soldier who asks his captive whether his fellow Spartans, who have chosen so bravely to die rather than surrender the day before, had been men of honour. The Spartan replies that a weapon would be worth a great deal if it could distinguish a gallant man from a coward.[1] Of course, no weapon can.

It was Thucydides who called war 'the human thing', the only definition he was prepared to provide. It is human because it derives its impetus from the social context of the time. It is the context that is all-important for the 'who', the 'what', and the 'how' one targets. In the fifth century BC, men targeted other men; armies targeted each other. Even today, however, where people are usually targeted from the third dimension of war—the air—a drone pilot operating an Unmanned Aerial Vehicle (UAV) over the skies of Afghanistan does not know whether he is killing men who are brave or cowards. The drone pilot, it is true, may share an intimacy with his targets that is unique in history; he can follow his targets to weddings and funerals, and if he is curious watch them having sex thanks to infrared cameras.[2] Pilots can profile behaviour, and take out people they consider to be terrorists. But while a drone pilot may be able to see more than any pilot has seen before, his breadth of vision does not allow him to see the man within. He might have greater oversight of the battlefield than ever, but this affords him no greater *insight* into the moral status of the man he has in his sights.

The 'who' is only part of another context—the 'what'. We have been targeting for centuries what Clausewitz called 'the centre of gravity'. It is a concept derived from Newtonian mechanics, and one that has perhaps decreasing purchase in a digital age. But every century has a recognised centre of gravity and every army has tried to target it, though not always with success. Instead of engaging the Persians in close combat, the Scythians retreated into the vastness of the Steppes. As nomads they had no capital city to capture and no trade routes to cut off. Instead, they vanished over the horizon, harrying the invaders in skirmishes and ambushes by mounted archers. In exasperation, the Persian King Darius issued a challenge to 'stand and fight like men'. The reply from one of the Scythian kings was made famous by Herodotus: 'Know this of me, Persians. I have never fled for fear of any man.'[3] But because they had no cultivated land to waste and no towns to capture, they also had no reason to engage the Persians in battle. They had nothing to defend but the graves of their fathers. Find them and the Persians would get their battle. In the end, they never did, and so were forced to retreat'.

[1] Lendon 2005, pp. 2, 47.

[2] Catherina 2011.

[3] Asprey 1994, p. 3.

In the course of history, war changed. It began to involve the will of a society and its people to fight on. Europe, claimed the philosopher Hegel in the early nineteenth century, had reached the stage when its citizens no longer fought for the security of life or the property of the individual, but were willing to hazard both for a greater end. In the modern age, societies were ready to fight wars for freedom or for a cause. It was the readiness of the citizen to sacrifice his life in the service of the State that, for Hegel, constituted the last phase of history. Inevitably, the centre of gravity was located in the sprawling urban cities of the industrial world, and in the workers and citizens who were conscripted to fight either at the front or in the factories. Today we target terrorist networks, non-State actors, and jihad tourists, the 'linchpin' of collective violence.

As for the 'how' of targeting, this has been almost entirely the outcome of technology in the modern era. In the late nineteenth century weapons became area-killing devices; individual soldiers were encouraged to fire not at a specific enemy but at the area in which several enemies might be found. It just so happens that in recent years we have been offered targeting choices we have never had before, and some of these I will discuss. None of this, however, takes away from what Thucydides told us long ago, that without strategic wisdom, targeting is useless.

2.2 Who

Targeted killings have never been popular. The Duke of Wellington was aghast when one of his artillery officers wanted to fire on Napoleon during the battle of Waterloo. Aristocrats did not target each other except in duels. This was an era of so-called 'cabinet wars', when armies preferred to out-manoeuvre, rather than outfight each other. Today, argued an essayist of the period, 'war is waged so humanely, so deftly and with so little profit, that it could be compared without paradox to civil trials'.[4] Of course, fashions change in war as in every other aspect of life. It is impossible to extrapolate from any period of history into the future and assume that things will be the same. As the most unpredictable of all activities, war is particularly unsuitable for the sort of trend analysis in which so many experts put their faith. A graph of eighteenth century combat deaths would have given no hint of the slaughter that was to come in the French Revolutionary and later Napoleonic wars. Nevertheless, the targeting of commanders who are also political leaders (Napoleon being one) has been generally avoided throughout history for a very obvious reason. Political decapitation may help you win a battle, but not necessarily a war. Someone has to surrender.

[4] Bell 2007, p. 49.

Even in World War II (as close to total war as any conflict has come), the Allies preferred not to target German commanders and the Americans targeted only one Japanese commander, Admiral Yamomoto, in 1943. On the eve of D-Day, the MI6 chief, Sir Stewart Menzies, wrote to the Foreign Office to explain why he was calling off a campaign of assassinations:

> We prepared a list of names which represent the most important German personalities and paramilitary formations believed to be in France. We do not believe, however, their removal will have much, or indeed any, effect on the efficient functioning of so widespread and highly organised a machine.

The Chairman of the Joint Intelligence Committee concurred:

> I agree with C in disliking the scheme, not out of squeamishness, as there are several people in this world whom I could kill with my own hands with a feeling of pleasure, and without that action in any way spoiling my appetite, but I think that it is the type of bright idea that in the end produces a good deal of trouble and does little good … Also, the Germans may take reprisals on our prisoners, and at that game they always win.[5]

As noted by Shashank Joshi, in his review of two recent books, Jeremy Scahill's *Dirty Wars* and Mark Mazzetti's *The Way of the Knife*, these arguments have been progressively abandoned. Both books document the rapid emergence of a new and probably enduring epoch in American security policy. Drone strikes in particular (so-called 'signature strikes') have now become almost the norm.

There are a number of explanations for this. The first is that information is becoming an increasingly important military instrument, as well as a major determinant of tactical and operational effectiveness. It is considered to be a force multiplier; it is also part of winning the 'narrative' by minimising collateral damage. While in the past information was seen mostly as an enabler of more efficient and accurate targeting, information these days is seen as an end in itself.

Second, drone strikes are really a form of policing rather than pacifying—not producing security, but reducing insecurity to manageable levels, as we do crime at home. This is why it makes sense for the CIA, as well as the regular military, to carry out many of these strikes. George Tenet, the Director of the Central Intelligence Agency at the time of 9/11, was originally appalled that he should be asked to go into the assassination business. By 2013, Scahill tells us, President Obama's appointee to the same post—John Brennan—was known as the 'Assassination Tsar'.

Targeted assassinations are not new; they were pioneered by the Israelis back in the 1990s. It was in this period that the Israeli Defence Force (IDF) seems to have adopted the maxim that successful armies need to instil 'terror in the hearts of their enemies'. This maxim can be seen in a number of policies that became fundamental during the second intifada. The most well known of these is what have been called 'targeted killings', or 'extra-judicial executions'. These practices have taken many forms, ranging from the detonation of terrorist leaders' mobile phones

[5]Joshi 2013, p. 44.

to helicopter strikes in densely populated areas. Crucially, the IDF opted not only to strike at purely military ringleaders, but also to take out a number of individuals whose function was partly or wholly political. The assassinations in 2004 of Sheikh Ahmed Yassim, the spiritual leader of Hamas, and his successor, Abdel-Aziz al-Rantisse, are cases in point. While these operations drew widespread criticism in the outside world, Israel maintained that its actions had significantly weakened the infrastructure of the movement.

None of this should be surprising, however, because it is reflective of the way we have been policing our societies at home. War, Clausewitz reminds us, is part of the pattern of social life. It is a microcosm of society and its norms. Signature strikes are based on behavioural profiling that is as old as the way we have been policing our societies since the 1980s. In terms of surveillance, successful policing has depended increasingly on the information that provides the algorithmic methods of modern risk assessment. Crime control and policy are particularly connected with a 'culture of control', a term which was coined to describe a society in which the perennial desire for security, risk management and the taming of chance have been so magnified and reinforced with regulations that surveillance has become a norm in practically every area of life. In the UK, the Home Office spends a significant portion of its crime prevention budget on CCTV cameras and face-recognition 'smart' technology. Corporations actively monitor consumer choice every time a credit card is swiped or an internet site visited. We have NETFLIX suggestions for what we should watch next based on what we have viewed before. On Amazon and Google we are profiled by what we read as well as watch. The global positioning system can track mobile phone users, and the same, of course, goes for GPS systems in cars.

In Britain, the Ministry of Defence is investing in neural network technology for pattern-matching to enable the security services to scan faces in a crowd and cross-reference them to known troublemakers.[6] Very soon we will be able to programme computers to recognise patterns and relationships that we cannot recognise in each other—body language if you will—that betray anxiety, even perhaps an intention to plant a bomb.[7] The Department of Homeland Security has Future Attribute Screening Technology (FAST) to identify potential terrorists using 'virtual' signs such as body language with a 70 % success rate (however this is measured). The point is that law enforcement agencies take pre-emption seriously in stopping crime before it is committed.

Data processing systems are also improving all the time. CCTV cameras can now be patched into information retrieval systems to facilitate a 'knowledge brokering' function which goes far beyond pinpointing people as they move about.

[6]Norris 1999, p. 217.

[7]This is explained in a presentation by Moglen (2012) at Re:Publica (Berlin), around 16 min, he recalls a statement from a Senior White House Official: 'The Governments wants a social graph of the US.'

Police forces go in for concentrated surveillance at high-risk locations and times;[8] hence, for example, the rise of drink-drive blitzes and random alcohol checks on weekends and public holidays. Both constitute a new *risk-focused* pattern of policing, which is intended through reconnaissance to establish the extent of the risk that either criminals or people involved in criminally negligent activity (drink driving) pose to the rest of us. Law enforcement agencies have begun replacing human police officers with efficient, all-seeing algorithms and the intelligence of the algorithms is continually growing. Speed cameras can now pick out newcomers to an area. Increasingly, these cameras are capable of making sense of human behaviour on CCTV. Algorithms are being tested that can identify—in real time—faces in a crowd or people with a particular gait. 'Predictive policing' systems built by IBM sift through vast records of past offences, weather patterns, social media use, and other contributing factors to display maps showing where offences are likely to occur, prompting police to boost patrols at specific times. Surveillance identifies a risk before it goes critical. To prevent it from going critical, we are encouraged to go for target devaluation.

In other words, our societies seek total knowledge of people. Surveillance enables the State to make biographical profiles of the population in order to determine their probable behaviour at some undetermined date. Thus, not only is it possible to follow an individual as he moves through space, but it is also possible to assess his moral worth at the same time, using information contained on a database.[9] This is called 'social sorting', an inclusive and exclusive process that is central to what the management of risk is fast becoming.

The same is increasingly true of targeting in war. It remains to be seen how successful drone strikes have been. The 'who' involves the 'what'—the enemy's centre of gravity. In Pakistan, the Americans have taken out training camps, and targeted the leadership of Al-Qaeda. The US campaign, however, seems to be less aimed at high value targets (only about 2 % of all drone deaths are aimed at targets such as Al-Qaeda Central members or militant leaders in Afghanistan or Pakistan); the main targets are usually low-level insurgents.[10]

Even now, it is impossible to estimate the real effects of drone strikes—whether tactical brilliance yields any real strategic reward. 'Is it creating a new generation of terrorists' is a question often asked. In the tribal areas of Pakistan, parents report taking their children out of school out of fears for their safety, and students speak of their diminished ability to concentrate.[11] Accounts such as these serve as

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[8]Bauman and Lyon 2012, p. 47.

[9]Lyon 2007, p. 107.

[10]International Human Rights and Conflict Resolution Clinic at Stanford Law School and the Global Justice Clinic of New York University School of Law (2012) Living under drones: death, injury and the trauma to civilians from US drone practices in Pakistan. www.livingunderdrones.org/wp-content/uploads/2013/10/Stanford-NYU-Living-Under-Drones.pdf. Accessed 19 December 2013.

[11]See Amnesty International (2013) and Human Rights Watch (2013).

a reminder that the harm of the US drone campaign goes beyond the significant toll of civilian lives lost (a matter also much disputed).

2.3 What

The 'what' of targeting is part of the social discourse of war, and discourses are always changing. For good or ill, the Western discourse is a liberal one. And technology is the single most important factor in delivering the means by which liberal societies can fight in a liberal manner. Technology makes it possible, as we shall see, to keep faith with traditional ethical practices much more than in the past. It also poses new ethical problems, for all technologies have side effects. Liberal societies still find the world stubbornly resistant to their ideas of how war should be waged.

Consider the reaction in 1911 to the first aerial bombing. An Italian airman threw grenades out of his monoplane onto Turkish troops in Libya. The world's press was outraged at the 'unsporting' nature of the venture on a very specific ground. The soldiers below were unable to retaliate. In fact, Turkish troops shot down an Italian airplane with rifle fire the following week. Less than 40 years later, Allied bombers were pummelling German cities (in retaliation, of course, for German raids).

It is striking that the Great Powers largely abided by the Geneva Protocol banning Chemical Weapons,[12] even though a few years earlier they had employed such weapons in the field. A strong military case was made for the use of gas before the American attack on Iwo Jima, but Roosevelt rejected the idea. More surprisingly, Hitler too prohibited their use even though they were central to the Final Solution ('Endlösung'). In part, this may have been out of fear of reprisals, or in part, quite possibly, because he had been gassed himself. In their book *A Higher Form of Killing*, the authors note that Raubkammer, where the Germans tested chemical weapons, was the only major military proving ground that Hitler never visited, perhaps with devastating consequences.[13] At least one American commander, Omar Bradley, later claimed that a sustained chemical counter-attack would have made all the difference between success and failure on the Normandy beaches.[14]

Now, in an attempt to be even more 'humane', we not only have banned certain technologies, but also have invented non-kinetic means of dealing with the enemy. We have non-lethal weapons in their third generation that, though still not widely used in combat zones, allow us to neutralise our enemies without taking

[12]Protocol for the Prohibition of the Use in War of Asphyxiating, Poisonous or other Gases, and of Bacteriological Methods of Warfare, 17 June 1925, 94 LNTS No 2138 (1929).

[13]Harris and Paxman 2002.

[14]The Economist (2013) The history of chemical weapons: the shadow of Ypres.

them out: sonic bullets that give you the mother of all headaches; super-glue guns that glue you to your weapon; and corrosive chemicals that dissolve the wings on a plane before it has had a chance to take off. All of these weapons, according to the commander of the US Marine Corps unit in Somalia in February 1995, showed "a reverence for human life and … commitment to the use of minimum force."[15] This is what humane warfare promises, the chance for the first time to eliminate the incivility of modern warfare. As Alvin and Heidi Toffler wrote some years ago:

> Non-lethality emerges not as a simple replacement for war, or an extension of peace, but as something different. It is something radically different in global affairs, an intermediate phenomenon, a pausing place, an arena for contests where more outcomes are decided bloodlessly.[16]

What we are targeting, however, is a centre of gravity which increasingly is public opinion. Winning the narrative is the name of the game and to win it we have to be humane. This derives from three imperatives, all of which require us to *humanise* war. The first is old-fashioned Western humanism. Governments used to measure the cost of war in terms of money, lost production, or the number of soldiers killed or wounded. Rarely did they attempt to measure its cost in terms of individual human suffering. Enemies were stripped of their humanity. Little thought was given to individuated death. Democracies had no more compunction than their enemies in raining down death and destruction on the heads of citizens, even children. 'Two years ago, we would all have been aghast at the idea of killing civilians', complained George Orwell in 1942.[17] 'I remember saying to someone during the Blitz… "in a year's time you will see headlines in the *Daily Express*: *Successful raid on Berlin orphanage*. *Babies set on fire*"'.[18]

Today, by contrast, we are inclined to individualise both death and human suffering more than ever before, especially when targeting. The US, claimed Madeline Albright at the time of the Kosovo War, spent as much time trying to limit deaths on the other side as it did its own. Even the ethics of war is no longer determined by abstract concepts as in the past. Ethics is a human endeavour and present-day humanism is reflected in the wish of civil society to reduce the incivility of warfare, both for the soldiers who serve in society's name and the enemies with which our societies find themselves at war.

We are doing so because we can technologically. We tried to accomplish this, of course, much earlier, back in the 1890s, but advances in modern weaponry, such as automatic weapon fire, massed artillery bombardment, and aerial bombing, resulted in greater inhumanity still—wars of bloody attrition. Today, we see little value in 'area killing' or the targeting of civilians. In the future, we will continue

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[15]Cited in Freedman 1998, p. 16.

[16]Toffler and Toffler 1994.

[17]Orwell 1968, p. 496.

[18]Ibid.

to become more discriminating. In the first Gulf War (1991) precision-guided weapons accounted for only 8 % of ordinance drops. During the second Gulf War, the invasion of Iraq twelve years later, they counted for nearly 100 %. 'The calibration of destruction' was the title of an article which appeared in *The Economist* in January 2010. 'Smaller, cleverer and more accurate munitions are changing warfare'.[19] The article was about *Perseus*, a 2000 lb bomb that incinerates almost everything in an area the size of two dozen football fields. Just outside that area, it sucks oxygen from the air, crushing anyone to be found there by a pressure wave. The weapon is not that different from napalm. What is surprising is that it is endorsed by the Human Rights Watch,[20] a humanitarian non-governmental organisation based in New York, largely because the weapon can be employed selectively and humanely; it spares the lives of people while destroying a bunker housing biological or chemical weapons. It can sterilise germ warfare laboratories. It can be put to use humanely.

The corollary of this is that we are also increasingly interested in reducing the material and human destructiveness of the battlefield, in limiting damage to the environment and human habitat. A 1954 Convention on Cultural Property permits countries to nominate 100 buildings that cannot be targeted by an enemy (in Britain, St Paul's Cathedral, but interestingly not Westminster Abbey, is on the list).[21]

We also fight humanitarian wars—Kosovo was supposed to be the first, though it may well have been the last. There was little humanity in the twentieth century. Marxists and non-Marxists alike were usually dismissive of the claims of small people to nationhood, not to mention 'unhistorical peoples' who got in the way of progress. In mediating humanity through the nation in arms or the revolutionary State, locked in a historic struggle against ancient adversaries, even democracies put principles first and individual human suffering second. In making the world 'safe for democracy', few Americans asked themselves whether democracy could be made safe for the world. Today, we fight for others as well as ourselves. We have extended our concept of humanity from the local community to the imagined community of the nation-State, and further afield still to the global village. "We are all internationalists now", claimed Britain's Prime Minister 22 days into the Kosovo War.[22] And you cannot fight humanitarian wars inhumanely. Even if we accept that selective targeting cannot work—that air power and cruise missiles do not always allow ethical choices and that we cannot target the evils of the world with the blunt instruments in our possession—we will insist on being more humane in targeting than we have in the past.

[19]The Economist (2010) The calibration of destruction.

[20]Ibid.

[21]Convention for the Protection of Cultural Property in the Event of Armed Conflict. The Hague. 14 May 1954. 249 UNTS 240.

[22]Blair 1999.