INTRODUCTION

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You may not be interested in war, but war is very interested in you.[1]

The purpose of this book is to provide an authoritative yet accessible introduction to the practice of modern warfare: hence we chose the title 'Understanding Modern Warfare'. Of course, adopting this rather ambitious title inevitably leads to two questions: what, in relation to the scope of this book, do we mean by 'warfare' and what on earth might the realm of 'modern' warfare encompass?

According to the *Oxford English Dictionary*, war is a 'hostile contention by means of armed forces, carried on between nations, states, or rulers, or between parties in the same nation or state'.[2] More succinctly, Hedley Bull, the renowned scholar of international relations, described war as 'organised violence carried on by political units against each other'.[3] Other definitions distinguish between armed conflict and war. They tend to focus on the scale and degree of violence employed, suggesting that 'wars' are characterised by large numbers of combatants, heavy casualties and/or high-intensity fighting. In the words of contemporary British military doctrine:

> Armed conflict is a situation in which violence or military force is threatened or used. War is the most extreme manifestation of armed conflict and is characterised by intense, extensive and sustained combat, usually between states.[4]

A recent guide to the key concepts in international relations suggests that, according to conventional wisdom, for a conflict to be classified as a war, it should result in at least 1,000 battle deaths. This is a far from satisfactory approach. Does it mean that a conflict that results in 998 fatal casualties is not a war unless two more people are killed? Does a conflict suddenly become a war when the magical casualty figure is reached? Definitions that focus simply on a body count are simplistic to the point of absurdity, ignoring the political and legal implications of defining war, in addition to saying nothing about the actual conduct of military operations. Other definitions focus on legal issues, identifying 'war' as a state of law that regulates armed conflict between groups, usually states. Such definitions reflect the conventional understanding of war, as reflected in international law and treaties,

as organised rule-bounded violence conducted between the uniformed armed forces of states. They tend to exclude the activities of sub-state groups whose use of violence is not given the credibility or legitimacy of the title 'war'. Given that, thus far into the twenty-first century, most armed conflict has occurred either between sub-state groups or between such groups and conventional militaries, such definitions, while logically coherent, may be too restrictive. For the purposes of this book, Bull's more expansive definition seems more satisfactory.

Contemporary Western definitions of war are profoundly influenced by the work of Carl von Clausewitz, whose posthumous *magnum opus On War,* published in 1832, stated that war is 'an act of force to compel our enemy to do our will . . . a clash of major interests, which is resolved by bloodshed'. Famously, Clausewitz emphasised the political nature of war, stressing that 'war is not merely an act of policy but a true political instrument, a continuation of political intercourse, carried on with other means', a statement that is as widely known as it is frequently misquoted. Far from advocating war as an alternative to politics he intended to show that war was driven by politics and could only be understood in that context. In consequence, the means of waging war can never be considered in isolation from the political aim that it is designed to support. As Clausewitz put it, '[w]ar may have its own grammar, but not its own logic. The logic is determined by the political aim.'[5] Of course, the political aim might be to achieve an economic goal or to meet some cultural imperative, such as a requirement to fight for status or honour, and the term 'political' must be viewed here in its broadest context.

The study of war therefore implies an investigation that is not limited to the battlefield but that caters for the intrusion of political factors. Indeed, such enquiry, commonly described by university departments and military academies alike as war studies or, displaying a degree of reticence as to the real subject matter, peace studies or defence studies, is necessarily a broad discipline. A sophisticated understanding of war requires one to take account of the impact of social, cultural, political, economic and technological factors (see figure i). The eminent military historian Michael Howard has recalled that, when given responsibility for establishing the War Studies Department at King's College London in the 1950s, he sought to recruit as widely as possible from other disciplines in the knowledge that the understanding of war required their input. To put it succinctly, 'the study of war was too important to be left to military historians'.[6] Any attempt to examine and explain war, in its broadest sense, is therefore a huge undertaking. As Azar Gat points out, '[w]ith war being connected to everything else and everything else being connected to war, explaining war and tracing its development in relation to human development in general almost amounts to a theory and a history of everything'.[7] This book does not attempt to do this. There are many excellent works covering the

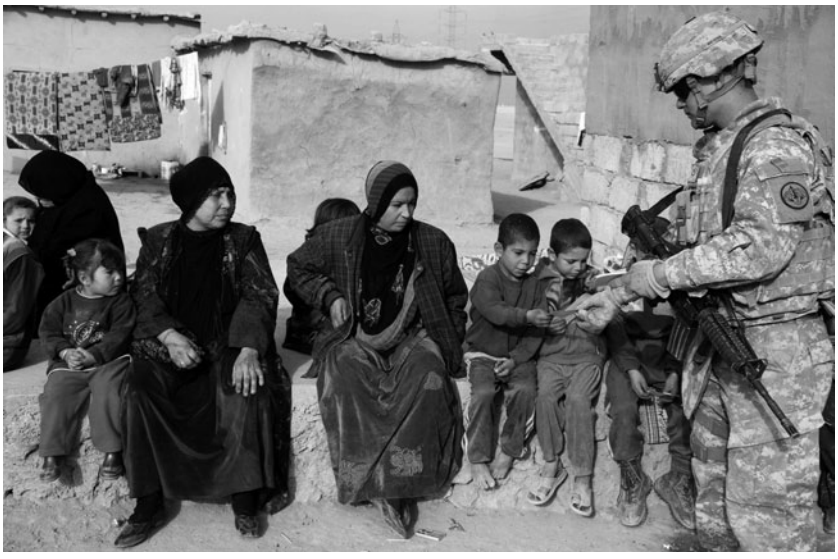


Figure i A US Army soldier attached to 3rd Armored Cavalry Regiment hands out informational flyers in Mosul, Iraq, January 2008. The current conflict in Iraq provides ample illustration of the need to understand social, cultural, political and other factors in addition to more traditional military matters if one is to understand war.

broader aspects of war. Instead, we have focused the efforts of this book on the conduct of warfare.

The study of warfare is a sub-set within the study of war. Warfare is about the conduct of war and is defined by the *Oxford English Dictionary* as 'the action of carrying on, or engaging in, war'. Warfare is thus primarily about the employment of organised violence. It is about fighting. The degree of violence, and how it is applied, varies according to circumstance. Indeed, some might argue that there is currently an identifiable 'Western way in warfare' that emphasises the requirement both to take and inflict minimum casualties. In some respect such approaches are reminiscent of much older non-Western attitudes, such as those espoused by Sun Tzu, writing in China in the fourth century BC.[8] Nevertheless, at its heart, warfare is about the preparation for, and conduct of, organised violence, something that is well reflected in Sun Tzu's work. The study of warfare implies a particular focus on armies, campaigns, battles and engagements, the basic hard currency of war. This does not mean that political, social, cultural, economic and technological factors are not relevant. Nothing could be further from the truth. These factors set the conditions within which warfare is conducted, and all play a part in determining how different societies or organisations approach the conduct of war. The same can be said of legal and ethical constraints, which are themselves a

reflection of the social, cultural and political environment in which they originate.

The impact of societal factors on war is often neglected in the vast and continuous outpouring of popular literature with which the field of military history is blessed or cursed, depending on one's perspective. However, the impact of war on society has, for a number of decades, represented a significant, perhaps even a dominant, approach to the study of war within the academic world. The 'war and society' or 'new military history' approach involves an examination of such issues as the impact of war on literature or on attitudes to class, race and gender, all very worthy areas of study. By moving the focus of enquiry away from the actual conduct of war to its broader impact, this approach has allowed liberal-minded academics and institutions to avoid the opprobrium that some believe is, or should be, attached to the study of war. As Jeremy Black has noted, in some respects this approach demilitarises military history by moving it away from war and battle, a process that Michael Howard has characterised as a 'flight to the suburbs' of military history.[9] Such studies may say something about society, but they tend to shed little light on military capability or performance. They do not usually develop our understanding of warfare. At the heart of such an understanding is, to quote Howard, 'the study of the central activity of armed forces, that is, fighting'.[10] In his influential book *The Face of Battle*, John Keegan made a strong case for the primary importance of 'battle history' within military history, arguing that:

> it is not through what armies *are* but what they *do* that the lives of nations and of individuals are changed. In either case, the engine of change is the same: the infliction of human suffering through violence. And the right to inflict suffering must always be purchased by, or at the risk of, combat – ultimately of combat *corps à corps*.[11]

Not everyone is happy to focus on such issues. Stephen Morillo has noted that military history is not the most respected branch of historical enquiry, and the root of this disapproval lies in its subject: war.[12] By extension the same thing is true of war studies. Of course, despite what some may think, study does not necessarily imply approval. One need not believe that war in general is, or individual wars in particular are, justified or necessary in order to think that the phenomenon of war is worthy of study, any more than one needs to believe that communicable diseases are a good thing in order to study the history of the bubonic plague in fourteenth-century Europe. The same also applies to the study of warfare. However, in the latter case, the particular focus on the actual conduct of war is often linked to recommendations on how to wage war more effectively, potentially influencing the actual behaviour of armed forces in future conflicts and, conceivably, contributing to the notion that armed conflict can be functional. The line between study and approval may

indeed be blurred. There may not even be a strong dividing line between commentator and practitioner, particularly in a discipline where many authors are serving or ex-military personnel and where many academic commentators are employed, directly or indirectly, by armed forces. The obvious justification for books such as this one is that, to paraphrase Sun Tzu, the conduct of war is of such importance, quite literally the province of life and death, that it is vital it be studied carefully. It should never be forgotten that wars always result in death, destruction, waste and human suffering, all too frequently on a truly staggering scale. However, ignoring the phenomenon is unlikely to make it go away. Indeed, one might suggest that in a democracy in the twenty-first century it is particularly important that as wide a range of people as possible should understand the nature of modern warfare in order that they are equipped to make intelligent judgements about the way in which their own governments seek to employ military force. The requirement for military personnel to understand warfare should be too obvious to require further elaboration, particularly given the historical correlation between ignorance and military incompetence.

The title of this book suggests a focus on 'modern' warfare. This begs many questions as to what one means by 'modern'. Dictionary definitions suggest that it means 'of or belonging to the present day or a comparatively recent period of history' and 'being of the kind now extant'. This does not provide much of a clue as to what period should be considered 'comparatively recent' when studying warfare, still less what 'of the kind now extant' should include or exclude. In terms of what 'comparatively recent' might mean, it is worth noting that different authors have chosen different timeframes in their own studies of 'modern war'. The starting-point of Theodore Ropp's 1959 study *War in the Modern World* was 1415.[13] Some authors begin with the sixteenth century, the age of Marlborough and Frederick the Great in the eighteenth century, the French Revolution of 1789 or the defeat of Napoleon in 1815. Others focus on the period from the outbreak of the American Civil War in 1861 or from the start of the twentieth century. It is not clear whether the 'comparatively recent' past should include years, decades or centuries.

Similarly, it is no easier to decide what 'the kind now extant' should mean in the context of warfare. Charles Townshend has argued that modern war is the product of administrative, technical and ideological developments that took place in Europe between the sixteenth and eighteenth centuries, transforming the nature of war and, by extension, the way in which it was conducted.[14] Other commentators have focused more squarely on technological factors. One website, popular with unwary students, suggests that 'modern warfare involves the widespread use of highly advanced technology'.[15] Such definitions are not necessarily wrong, but they do rule out many, perhaps even most, contemporary conflicts as

Figure ii US Naval personnel monitor radar and missile-firing consoles aboard the aircraft carrier USS *John F. Kennedy* during operations in support of Operation Iraqi Freedom in the Arabian Gulf, September 2004. Such systems, and the skills required to create and operate them, reflect the technological nature of much modern warfare.

non-modern, because these are often fought with unsophisticated small arms, light support weapons and improvised explosive devices (see figures ii and iii). There is a danger, in any case, of focusing too heavily on weapons technology. Technology is not an independent variable, and the manner in which it is developed and employed reflects a broad range of inputs that are not technological in origin.

In his introduction to *The Cambridge History of Warfare*, Geoffrey Parker identifies technology as just one of five key foundations for what he describes as the 'Western way of war', arguing that armed forces in the West have traditionally placed a heavy reliance on superior technology, often to compensate for inferior numbers.[16] However, technology alone is not enough. He also cites discipline, an aggressive military tradition, the ability to respond and adapt to successive change, and an ability to finance such change as the other foundation stones. Parker is unapologetic in identifying the 'Western way' as a superior way of waging war. Of course, while Western-type approaches to warfare have dominated conventional combat and generally, but not exclusively, defeated their 'non-Western'-type opponents since at least the eighteenth century, this does not mean to say that the 'Western way' is suitable to all circumstances. Indeed, an increasing body of opinion now suggests that future conflict will be characterised by

Figure iii Operation Enduring Freedom has also highlighted the importance of traditional infantry skills and the continued dangers posed by relatively low-technology threats. Here Iraqi soldiers practise urban warfare tactics at an advanced training course led by US soldiers in Mosul, 2006.

low-intensity and asymmetric warfare and that 'conventional' military operations by armies represent a form of warfare that is of decreasing relevance. According to this view, warfare in the twenty-first century will be radically different from war in the past, and it is far from clear that approaches grounded in the Western tradition are the most likely to prove successful. On the basis of such ideas, it is sometimes suggested that the study of 'modern' warfare requires a much shorter timeframe than is usually employed and that too broad a frame of reference is liable to lead one to focus on the wrong issues. Thus, not only is there dispute over what one means by the 'comparatively recent past', there is a similar lack of consensus over what 'of the kind now extant' actually implies.

These issues are addressed throughout this book. It is not intended to provide a history of modern warfare. Rather, it examines the critical issues, ideas, concepts and vocabulary necessary to develop and articulate an understanding of the conduct of war in its various forms and in its different operating environments. The focus is on the kind of warfare that is 'of the kind now extant'. In order to examine this in a satisfactory fashion, an examination of military concepts, organisations and activities in the 'comparatively recent past' is also required. We have tried to avoid

being overly prescriptive about what this might actually mean. The degree to which one needs to look back in order to understand the present varies depending on the subject. To understand modern strategy requires one to deal with concepts and theories that were first articulated centuries ago, while an understanding of air warfare implies a primary focus on the period since the Wright brothers' pioneering flight in 1903. Therefore, while the book focuses primarily on warfare in the twentieth and twenty-first centuries, it also draws on issues, events and concepts that pre-date this timescale. When addressing issues that relate to conventional war fighting, there is an inevitable tendency to focus on concepts that do reflect a Western approach. This is determined by the pervasive, global impact of such concepts rather than by any bias on the part of the authors. In any case, our approach is informed by an understanding of the complexity of the subject and the diversity that characterises different groups' and organisations' approaches to warfare and by the dangers of paradigm/diffusion models. The book focuses on both conventional and more unconventional warfare. The latter category includes low-intensity conflict, terrorism, guerrilla warfare and other forms of what is frequently described as 'asymmetric warfare'; it also includes the use, or potential use, of weapons of mass destruction (WMDs). Western approaches are not necessarily dominant in either case.

While much of the subject matter contains a presentation of principles and concepts, we have tried to avoid presenting such matter as wisdom in itself. The conduct of warfare has generated a plethora of doctrine, templates, ideas and rules on the methods through which warfare can be conducted successfully. This is reflected by the way in which many militaries have developed formal 'principles of war' to guide the effective application of military power (see box i). As this book makes clear, however, warfare is not a science. Knowledge of these things is less important than an understanding of the challenges of applying them in any given context. A century ago, Julian Corbett emphasised this point, writing that 'nothing is so dangerous in the study of war as to permit maxims to become the substitute for judgement'.[17] Knowledge of principles and concepts is not a substitute for judgement or understanding, merely a means of fertilising both. We hope, therefore, that in addition to informing the reader, this book will act as a stimulus for thought and reflection on the subject matter.

In this spirit, the first chapter addresses the subject of strategy and its fundamental importance to the conduct of warfare. The particular challenges and opportunities of warfare in particular environments are also subject to the general influences of the nature of strategy. Such factors as the adversarial nature of war (the fact that it is always fought against another, thinking foe) make warfare an unrelentingly complex and difficult activity. The three subsequent chapters examine the land, maritime and air environ-

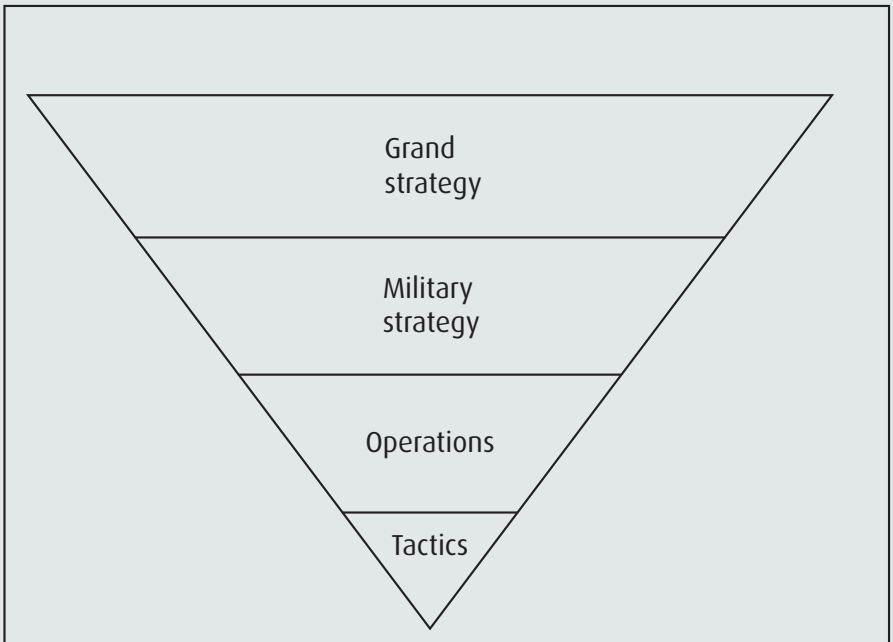
Box i Illustrative principles of war

Soviet Union	United Kingdom	United States
Offensive action	Selection and maintenance of aim	Objective
Manoeuvre and initiative	Concentration of force	Offence
Concentration of force	Economy of effort	Mass
Economy of force	Maintenance of morale	Economy of force
Surprise and deception	Offensive action	Manoeuvre
Momentum	Flexibility	Unity of command
Annihilation	Co-operation	Security
Reserves	Security	Surprise
Co-operation	Surprise	Simplicity
	Administration	

ments respectively. These environments have their own particular concepts and principles that derive from the differing nature of the environments and the attributes of forces designed to fight in them. Increasingly, however, modern warfare has also been defined by commonalities, particularly as joint operations – warfare involving co-operation between the different services – has become a recurrent theme in the conduct of war. The final two chapters of this book consider a form of warfare, irregular warfare, and a set of technologies, WMDs, that have exerted progressively more influence on the theory and practice of warfare in modern times. Events that have taken place since 2000 have given these two subjects even more significance. The debates on 'super-terrorism' and the potential for a coming 'age of asymmetry' also give unconventional operations and WMDs a prominent place in debates on the future of warfare.

Although the various chapters in this book deal with many different issues, they also reflect certain common themes. One is that modern warfare is more of an evolutionary phenomenon than it is revolutionary. Many of the important features of warfare in the twenty-first century have their origins in the gradual development of concepts and structures from earlier periods. A second common feature is the importance of interservice co-operation (joint operations). We have not included a separate chapter on joint operations because their importance is reflected throughout this book and particularly in the three chapters examining the environmental elements that comprise joint operations (land, air and naval operations). A third theme is the importance of thinking about warfare in terms of different, but interrelated, levels (see box ii). While chapter 1 demonstrates that grand strategy is always important, the subsequent chapters illustrate that different environments and forms of warfare have seen continuity and change that manifest themselves in different ways at different levels of war. For example, as

Box ii The levels of war



Grand strategic level

- the application of national resources to achieve national/alliance policy objectives

Military strategic level

- the application of military resources to help achieve grand strategic objectives

Operational level

- the level at which campaigns and major operations are planned, sequenced and directed

Tactical level

- the level at which battles and engagements are planned and fought

chapter 3 on naval warfare explains, changes at the tactical level of war do not necessarily invalidate established principles at the operational and strategic levels. Another recurrent theme is that it is evidently rarely easy to distinguish between continuity and change. Consequently, militaries have often found it difficult to predict accurately the future of warfare.