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Benjamin Zala is a fellow in the Department of International Relations at the ANU. He is the author of Power in International Society and his work has appeared in over a dozen peer-reviewed journals. He has previously held positions at Harvard University, the Oxford Research Group, Chatham House and the University of Leicester, where he is also currently a visiting fellow.
Editorial

As Australians have slowly come out from COVID lockdowns over the past two years, we have been met with a perilous outlook for the strategic environment. While scholars and analysts have been unrelenting in delivering detailed considerations of Russia’s war in Ukraine, it has raised questions about what the conflict may mean for the future security of our region. This, coupled with the change in government in Australia since our last issue, has refocused engagement with our neighbours and renewed discussions about the best way for Defence to contribute to regional stability.

Against this backdrop, this issue encompasses discussions on continuity and change in war through to challenges and opportunities for Australia, including grappling with what deterrence means in the Australian context. After a couple of ‘failed’ attempts, thanks to travel restrictions in the past few years, the Australian Defence College was honoured to finally welcome Professor Beatrice Heuser in September, as the 2022 Professor Jeffrey Grey Distinguished Visiting Chair. This issue begins with the publication of the JG Grey Oration, delivered to a packed house in the Blamey Theatre at the Australian Defence College. Professor Heuser’s speech reminded us of the enduring causes and aims of war. But it also pointed to what has fundamentally changed, and how our conceptualisation of war, understanding of its strategic combatants, and how insurgency and technology are affecting our thinking on the division between civilians and combatants. She concludes that no extrapolation of long-term trends can lead to the conclusion that future forms of armed conflict will be only ‘more of the same’. We must prepare for a rethink of much of what we have hitherto thought about war. This oration was especially poignant, given the Centre for Defence Research held a profession of arms seminar in June underpinned by how long-term trends,
such as great power competition, will affect our region. This led to a day of lively discussions about conventional deterrence – considerations for Australia, from which four of our presenters, introduced by the Commander Australian Defence College, AVM Stephen Edgeley AM PhD, have contributed commentaries to our focus section.

Van Jackson, a senior lecturer at the Victoria University of Wellington who also served in the Office of the US Secretary of Defence in foreign and defence policy, critiques the US National Defense Strategy concept of integrated deterrence. He argues it is a buzzword with flimsy intellectual foundations, exposing a risk-averse approach focused more on escalation control than prevention of war or territorial aggression. For Australia, he says the evolving character of US thinking has serious implications not just for deterrence but also for the role of the military and allies in US statecraft.

Benjamin Zala, ANU senior lecturer and former Harvard Belfer Center research fellow, examines the effects of advanced conventional weapons on US nuclear deterrence, then considers how, despite the enthusiasm of its advocates, Australia might use a hypersonic missile technology capability to have deterrent effects. He argues for a considered debate on the potential costs and benefits of such technology, particularly given their potential to have unforeseen consequences on the wider global strategic balance and arms racing.

Given this discussion on capability versus concept, we then turn to how deterrence is viewed from Chinese and Russian perspectives with commentaries by the Centre for Defence Research senior fellows. Michael Clarke discusses the differences in Western and Chinese interpretations of the concepts of deterrence and compellence and the implications this holds for understanding Chinese behaviour in crisis and conflict scenarios, as may occur over the status of Taiwan. Matthew Sussex then examines the Russian approach to deterrence – its conceptualisation and application – and assesses some of the implications of Russia’s ‘strategic deterrence’ for Western strategic practice in the wake of the invasion of Ukraine.

Our peer-reviewed papers again turn to notions of continuity and change as we consider perspectives unique to Australia. In their paper, Cameron Moore and Jo Brick consider the cultural and constitutional foundations of Australian civil–military relations. They posit that the distinct place of military forces and military culture in Australian society, and over a century of Australian foreign policy, forms the foundation for interaction between Australian military and civilian leaders. The journal encourages discussions such as this, which shed new light on and further examine an understudied area of Australian defence.
We then have Samuel White’s exploration of how first nation thinking may inform modern military strategists thinking on the spectrum of competition, grey-zone operations and the global rules-based order. White argues that war and warfare were an integral part of Indigenous Australian society. He identifies three principles of Indigenous thinking on conflict that may be applicable in the modern era in a multitude of ways, such as methods to avoid escalation, promote empathetic international relations and protect sovereignty in an era of competition.

This issue of the journal again brings a summer digest of essays and reviews beginning with Michael Evans’s review essay of two important books: The New Art of War: The Origins, Theory and Future of Conflict by Colonel Geoffrey F Weiss and Strategia: A Primer on Theory and Strategy for Students of War by Colonel Charles S Oliviero. This is followed by a Christmas book list with reviews of War Transformed by Mick Ryan, reviewed by Peter Layton; Mars Adapting by Frank Hoffman, reviewed by Chris Field; The Crux by Richard Rumelt, reviewed by Michael Hatherell; Jeffrey R Cares and Anthony Cowden’s Fighting the Fleet reviewed by Allan du Toit; Fighting Australia’s Cold War by Peter Dean and Tristan Moss, reviewed by Andrew Hine; and Mark Galeotti’s The Weaponsiation of Everything reviewed by Jason Logue.

So, as we head into the Christmas and summer break of 2022/23, read, relax, enjoy and have a safe and happy holiday.

Dr Cathy Maloney
Editor
The JG Grey Oration

Williamson Murray once said that war is neither a science nor a craft but rather an incredibly complex endeavour, which challenges men and women to the core of their souls. It is to put it bluntly, not only the most physically demanding of all the professions but also the most demanding intellectually and morally. From this, it is understandable why militaries and national security professionals must hone their intellectual armoury so that it is adaptive for the contemporary and future security environment.

No one embodied this intellectual investment more than Professor Jeffrey Grey. Jeff was one of the finest military historians our nation has produced. Starting with his thesis on the Korean War, over the course of three decades Jeff personified intellectual excellence in the profession of arms. An excellence that gave him a worldwide reputation in the field and led to appointments such as the prestigious Major General Matthew C Horner Chair of Military Theory at the United States Marine Corp University and president of the Society for Military History.

However, it is through his tutelage of thousands of midshipmen and cadets in the Department of History, and later the School of Humanities and Social Sciences at the Australian Defence Force Academy, that his legacy on the Australian Defence Force is most recognisable. Today, there is not a member of the Australian Defence Force’s leadership that has not been influenced by Jeff and his teachings. Influences that will not only impact Australia’s military and national security discourse now but into the future, as an inheritance like few others.

So it was not a difficult decision when a proposal was raised to establish a visiting chair in Defence Studies at the Australian Defence College to name it after Professor Jeffrey Grey. It is a recognition of his contribution to intellectual excellence in the profession of arms and an acknowledgement of Jeffrey Grey as a luminary, whose work will continue to inform and shape Australia’s national security discourse for generations to come.

The *Australian Journal of Defence and Strategic Studies* is proud to present Professor Beatrice Heuser’s 2022 JG Grey Oration.
General Frewen, Commander, Commandant, dear Mrs Emma Grey, dear Sebastian, Duncan, Victoria, Ladies and Gentlemen,

First of all, it behoves me to pay homage to the eminent historian of military history, the late Professor Jeffrey Grey, a worthy successor to Robert O’Neill as historiographer of Australia’s wars since 1945. I am sure he still had important books to write but was prevented by a premature death. I did not have the privilege to meet him personally, all the more regrettably. But I had the opportunity to talk to Professor Robert O’Neill – who I believe was an examiner of his PhD – and to Professor Michael Evans about Jeff Grey’s very impressive work.

Jeff Grey was the author of the definitive reference work on Australia’s military history, and detailed studies of Australia’s involvement in the Vietnam War. He was the editor of a long series of works on Australia’s contribution to Britain’s wars of the nineteenth and twentieth centuries and many other works besides. He was an historian’s historian, somebody who liked to ‘get his fingers dirty in the archives’, get stuck into documents and engage with war as seriously as any civilian could. With his father a major general, he had considerable respect for the profession of the soldier and showed this in his dedication to his teaching, particularly, but not only of army officers. His presidency of the American Historical Association was an illustration of his international standing.

He was, however, sceptical about strategic studies, I am told. I could have reassured him that the British tradition of strategic studies following Captain Basil Liddell Hart would have been entirely to his liking! What a shame we never met. I might also have learned more about the fortunes of the Wallabies.
In all, Jeff Grey was a prolific writer and an outstanding editor whose contribution to Australian military history has rightly been acknowledged with this Chair of Military History, of which I presently have the honour of being the incumbent. This oration is very aptly dedicated to his memory.

Coming from the United Kingdom, I cannot address such a topic as this without talking about the Changing Character of War Programme, which Sir Hew Strachan bequeathed to the University of Oxford.¹ He wanted to contrast the lasting essence of war – its destructiveness, pain, death, its potential for escalation – and the particular form that war assumes at a particular time and in a particular context.

In Professor Strachan’s Changing Character of War Programme, I once gave a talk at Oxford on insurgencies and counterinsurgency. I put my foot in it when I argued this was a form of war where over the millennia of recorded history, little had changed. After all, I was speaking at the Changing Character of War Project! I had previously worked on nuclear strategy, where the key argument is always made that the invention of nuclear weapons has changed war and thinking about war fundamentally. I was thus myself quite surprised to find that, in spending some years reading about small wars (in the sense of insurgencies and counterinsurgency), I saw so much continuity across time and space. Which leads me to today’s subject: that there is change as well as continuity in war. This may strike you as a platitude, but as you will see, this recognition is of considerable consequences for all of you who are in the armed forces. More still, change itself has taken different forms. Some has been unidirectional, not quite but almost linear. Let’s call it linear for the sake of simplicity. But most has been nonlinear, not quite cyclical or periodic like a sinus curve, but definitely up and down, backwards and forwards, without a clear trend in either direction.

**Causes and aims of war**

Perhaps the causes of wars are the most enduring part of war. There have been many explanations of the causes of war, leaving aside the gods or the devil, or the innate evil of humans.²

Some argue it is biological. They see the individual selfish male gene as a key cause of war, where the male (gene) quests for more wives to bear more of their offspring, thus depriving others of their wives, which leads to violent competition

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¹ For more on the Changing Character of War Programme see the website of the Oxford University Changing Character of War Centre, [https://ccw.ox.ac.uk](https://ccw.ox.ac.uk)

² For details of these, see Beatrice Heuser, *War: A Genealogy of Western Ideas and Practice*, Oxford University Press, Oxford, 2022, ch 4. [https://doi.org/10.1093/oso/9780198796893.001.0001](https://doi.org/10.1093/oso/9780198796893.001.0001)
for women. We still see traces of this in the large-scale rape that occurs in the
wars of particular cultures. While I won’t deny that, particularly young, men of
all cultures in their early encounters with their own testosterone can be inclined
that way, in our day, it does seem to be, at least in part, a cultural thing. The
research done on the Second World War in Europe, for example, showed that the
soldiers of the Red Army raped on a much larger scale – including women from
allied countries – than the US, British and French soldiers. There must be other
variables intervening, such as discipline, especially the attitude of commanding
officers. American officers ensured that rapists were hanged in the presence of
their victims, for example.

Evolutionary psychologists argue that humans have psychologically got stuck
some time in prehistory, in a context of tribal competition for natural resources. These come under the explanatory category of external physical forces, such as climate change, drought and ensuing resource shortages that lead to human
migration and conquest of new lands by force. We could also call these negative
economic drivers. Positive economic drivers include the quest for booty, the aim to extend commerce, the capture of slaves, the conquest of productive
territory (with natural resources from wheat to oil), the seizure of strategic
positions, for example access to the sea, trade routes. Another cause of war has been identified in social conditions, especially overpopulation or population
growth resulting in a youth bulge, that is where there are far more youngsters
than can fill existing jobs. Young men and sometimes young women will try to
escape what seems like a predetermined life of poverty, a life with their parents in
 cramped conditions. There is also in many enterprising young people the quest
for adventure. Or, in many societies from fifteenth-century western Europe to the
present, there are veterans who are unable to reintegrate into civilian society and
pursue alternative professions. Apparently, a large proportion of the homeless in
central London are former soldiers.

Political structures of a polity can favour warfare, where war allows an elite to
harness the collectivity to their expansionist group or personal interests at the
cost of the lives and treasure of the large majority who wage their wars for them
(with a little extra benefit for rising entrepreneurs). Indeed, war can be an excuse
for internal repression, if it allows a group to stay in power.

Every cause I have mentioned so far has existed throughout history and has surfaced periodically.

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What has changed *fundamentally* over time?

First, ideas, ideologies and religions setting aims, such as the aim of extending one’s own group’s, nation’s, or race’s power over other (‘inferior’) groups; or alternatively, the (in theory, albeit not necessarily in practice, more benign) aim of converting other groups/peoples to the only beatifying church, religion or social order (which is supposedly in their interest).

This dimension has undergone fundamental changes as each of these religions and ideologies were new in their time and created new *ideational* principles for the treatment of others.

Secondly, there is the international order, by which I mean the distribution of power, territory and wealth between polities and the positive establishment or emergence of rules of behaviour among them, which have been observed or ignored by some. This has changed *fundamentally* over time.

Inter-entity systems (so as to include polities or entities that do not fulfil criteria usually applied to modern statehood) have expanded over millennia to become global. While there were some relations between the earliest hunter-gatherer groups, or between the Ngunnawal and the Gundungurra and the Ngarigo peoples of Australia, the sheer geographic extension of relations has been transformed entirely by transport and technology. Today, confrontations take place between imagined communities, more than between neighbouring villages or tribes. Europeans could not have settled in Australia before the invention of global navigation, and before the invention of aircraft, Australians would not have feared an air attack.

**Interplay of factors**

One cannot separate the behaviour of states among themselves and their governments’ behaviour towards those within. There may be a tension between the mission of protecting the state’s population and furthering its interests and that of respecting the human rights of all humanity; generally, governments presented with this dilemma will put their own populations first. But you won’t have a government that persecutes minorities within its own state borders putting general human rights first in inter-state conflicts. A sober consciousness of one’s own limited means can create limitations, but ideological fervour (and structural dysfunctionality – realistic analysis not being presented to the supreme leader) can override this self-limitation.

Note that economic motivations and aims straddle criminality and political or ideological motivations.
On an economic level, we are prepared to pay less for the wellbeing of others than for the wellbeing of our own populations. *Economic and political interests clash:* for example: the reluctance of European governments to cut off oil and gas imports from Russia to strangle the Russian war effort; our relations with Saudi Arabia, where the current shortages of gas and petrol that are largely due to reductions in Western imports from Russia resulting from the Russian invasion of Ukraine have forced Western statesmen and women to kowtow to Saudi Arabian Foreign Minister Prince Mohammed bin Salman, who is known to be responsible for assassinations and other breaches of human rights; or our relations with China, where, as a student of this college pointed out to me, we are balancing prosperity versus security, or perhaps one should say, versus our freedoms and independence from foreign interference.

Even today, sovereignty is *de facto* or *de iure* set by some states above international law. The British diplomat Sir Robert Cooper, in a brilliant book, has explained today’s world as one in which modern, pre-modern and post-modern states coexist, which makes life so hard for post-modern states. Here he defines ‘modern’ as state governments claiming the sovereign freedom to act as they please, overriding limitations on war established in international law, while ensuring that other actors within the state do not have the right or means to resort to violence. Cooper explains that this approach is still widespread: it is shared by the United States, which will disregard international organisations and international law when they conflict with ‘national interest’. And also, as we have just seen demonstrated, it is shared by Russia and by China, with its disregard for the International Court of Justice’s pronouncement on the South China Sea. Meanwhile some ‘pre-modern’ states are still struggling to establish a domestic monopoly on violence, while in Europe, the ‘post-modern’ states have surrendered parts of their sovereign freedoms in reciprocal commitments to settle conflicts peacefully.\(^4\)

At the global level, the enforcement mechanism for the United Nations Charter is dysfunctional, given the key authority of the United Nations Security Council (UNSC) and the rights of its permanent five members which are also veto powers. This reflects a clash of ideals: those of sovereignty versus those of subordinating the national interests of the great powers to the interests of the world community of nations.

A different angle on this is to point to the interplay between political and technological factors. Even if we imagined a UNSC in which no rogue state held

the veto power, states in possession of nuclear weapons and bomber fleets and missiles can do what they like. In the case of the war in Ukraine, we are self-paralysed by our fear of nuclear war (and perhaps even any war that might lead to the bombing of our cities).

**Linearity and nonlinearity**

Turning from causes of war to the evolution of war, let us compare what has changed with a general trend in one direction and what has gone up and down without a clearly distinguishable pattern.

**Legal linear progress**

First, there is the relatively linear development of international law and the laws of armed conflict or laws of war in the Middle East and the Euro-Mediterranean area. Legitimate authority is seen as key to legitimate war and attempts to monopolise organised group violence. This goes a long way back to earliest records of antiquity found in the Euro-Mediterranean area. Only with the spread of Christianity, however, did we see a very slow revolution in legal protection of human rights in war in Europe, through customary law and finally into LoAC. Since then, there has indeed been a linear progression in international law – at least on paper, that is – with regard to the progressive limitation of what one could do to civilians in war. The law, however, is often not reflected in reality. Not all take seriously the ‘Global West’s’ territorial satiation or, theoretically, the universal commitment of all states signatory to the UN Charter and of those signatory to the Helsinki Final Act to ‘no change of borders by force‘: just as Japan, having signed the Briand-Kellogg Pact banning war in 1928, cavalierly ignored it in its expansionist campaigns, which began only three years later.

The rules-based international order – which includes the key elements of the renunciation of the use of force as an instrument of state power and respect for human rights, even in war – is not shared universally. In 1966, the governments of all the UN’s member states signed up to the International Covenant on Civil and Political Rights and the International Covenant on Economic, Social and Cultural Rights. Yet many governments of states that at one point signed up

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to these covenants do not agree with them and do not apply them in their own legislation. Instead, they are willing to sacrifice individual human rights and entire groups and minorities to the interests of the majority as defined by their ideology, religion or a ruling elite.

Note that many self-critical people in the Global West contribute to the undermining of the covenants by preaching cultural equivalence and echoing the critics of the West, conceding that the right recognised in the two above-mentioned covenants – right to life, equality, non-discrimination, education – should not apply to all of humanity. While I am all for self-criticism, which is essential for democracy, I find the argument that the human rights captured in these covenants, which we have fought for for centuries, should not apply to and benefit all humans utterly despicable! That would be discrimination!

The nonlinear evolution of states and of the inter-state system

The state’s power – in pursuit of sovereignty – grew greatly from the time of the Reformation, as states cast off the Papacy’s claim to moral supremacy. But then it shrank again as states in the late nineteenth and twentieth centuries signed up to international conventions and covenants. We should not, therefore, take the nineteenth-century model of a states-dominated international system for granted. Instead, we should note the existence of multiple forms of states for most of history: island-principalities, the city-states of Ancient Greece, the Hanse cities to Venice and Genoa to Singapore, empires, Umma/caliphate, universitas christianorum, patchworks of territory ‘belonging’ to a dynasty, the South Asian and South-East Asian Mandala realms, non-sedentary tribes of Africa … Accordingly, inter-entity orders have taken on various forms. One of them, the universitas christianorum, an assumed whole to which all Christian polities belonged (even if they were headed by princes who had no superior), disappeared after the Renaissance, allowing for the rise of the sovereign state. Yet some idea of rules observed by ‘civilised’ states (later referred to as the family of nations) persisted. The Holy Roman Empire preserved this idea – most famously expressed in the Pax Augusta or Pax Romana – of one area of internal peace. Returning to it, the post-modern states (to continue with Robert Cooper’s categories) have, by entering into alliances or even into the European Union with its partial super-state qualities, relinquished part of their sovereignty. In parallel, three Pentarchies developed, initially only in Europe, then globally: first in 1815, the congress system; then in 1919, the League of Nations; and finally in 1945, the UN with its UNSC – which only worked as its founders had intended for a few years in the brief inter-glacial between the end of the Cold War and the resumption of tensions between the West and Russia.
Myth of linear evolution of war

There has been, recurrently in history, a perception that war was becoming ever larger in scale, which we find in the first draft of Clausewitz’s On War and in ideas that surfaced around the time of both World Wars. The reality has been more complex. Major war has, indeed, changed enormously over time; both in terms of scale and complexity, for instance, the numbers involved, geographic dimensions, the military-industrial complex, technology (such as firepower, transport and so on). Given this expansion, in the mid-1920s, the Soviet strategist Alexander Svechin rightly introduced ‘operational art’ to cover what used to be ‘strategy’ – the use of battle for the purpose of the campaign. At much the same time, Basil Liddell Hart in the Britain introduced the notion of grand strategy to reflect a higher level of strategy-making that uses military as well as non-military tools available to a state or coalition.

But contrary to expectations at the end of each major war, earlier forms of war (for economic gains and expansion, insurgencies, large or limited land grabs …) continued and continue to exist side by side with large-scale, ‘inter-state’ war, or were and are interspersed with it. Politically driven violence continues to range from terrorism to the threat of nuclear war. Other instruments of grand strategy are also deployed, in peace and war: especially economic levers – with costs for both sides – and propaganda war.

Conversely, economic motivations still make war the continuation of economic contests – booty raids – with the admixture of other means. Cyber war is obviously a technologically unprecedented phenomenon, but most of its effects existed before in other forms (propaganda, rumour, espionage …).

Multiple drivers and motivations continue to exist for most wars. The very slow but, in Europe, linear development of the LoAC and the respect for human rights in international law has not been paralleled by a linear respect of these in reality. Nationalism, racism and other ideologies lead to civilians of ‘other’ groups being declared sub-human, enemies, to be targeted in war (air warfare, reprise killings, massacres and genocide).

Conceptualisations of war

As the conduct of war has changed in scope and effects through changes in societies, politics, economies and technology, albeit not always in a linear fashion, so has its conceptualisation, that is how humans think about war. Don’t get me wrong: I do not belong to the ‘it’s all in the mind’ brigade. The world is made of hard, tangible matter and death, destruction, the deliberate infliction of violence, all these are hard, tangible facts. When people kill other people, when there is pain and suffering, these are hard facts, not airy fairy ‘constructs’. However, the
words with which humans describe events are constructs. The same word can mean different things to different people, and to different groups of people.

I am not just talking about a word having multiple meanings and usages – a university’s ‘strategy’ for attracting more students, the ‘strategy’ of a business has little to do with the ‘strategy’ of the general, the commander in war, in preparing and conducting a war. I mean ‘constructs’, also in the sense that humans construct criteria for something to fit a particular concept. Different civilisations have defined phenomena as war, according to whether they fulfilled certain criteria, certain rules and even limitations, being regular. If these boxes were not ticked, something would be seen as ‘piracy’, organised crime, rebellion, chaos. And yet the very word ‘war’, as the word ‘guerre’ in France, derives from a Germanic word ‘werra’. It was used in the Middle Ages, alongside the Latin word bellum, to denote chaos, disorderly fighting; while bellum was a rules-bound process of settling a dispute between parties that were recognised as legitimate contestants.

Bear with me, as this is actually important. It is important because, over time, rules governing what is ‘regular’ war and what is not have been constructed – here again that word denoting that it is not nature or physics let alone God-given, but something ‘made up’ by humans, for better or worse. Rules, criteria, then, have been constructed by humans to draw a line between what you may do to a ‘regular’ enemy – who respects rules and whom you respect – and what you may do to an irregular adversary. This second category might refer to criminals, rebels, or pirates; and until quite recently, this would be used as an excuse to make no prisoners or to execute them without trial – an excuse made not just by the Wehrmacht or the SS in Nazi Germany’s Second World War. Depending on the fulfilment of criteria, which in turn changed over time, armed conflicts have been seen as legitimate and bounded by rules or else declared illegitimate by one side, and accordingly conducted with great brutality, over centuries.

Some of these criteria have enjoyed great longevity. The most long-lived one is that of the legitimate authority required to declare a ‘proper’ war. This is simple to explain: those in power always fear that they may be toppled and thus use all means available to them to enhance their ‘standing’, claiming legitimacy only for themselves and grudgingly to peers in other polities, denying it to potential contestants. In short: rulers for millennia have claimed that any war is proper only if they undertake it, but not if anybody challenging them undertakes it.

Another criterion has come and gone: namely, the idea that only a formally declared war counts as a ‘proper’ war. Over time, this has yielded to ultimata being proclaimed: a grievance would be articulated and, if it were not addressed, that would automatically bring on war, thus putting the blame for the war on
the side that had not redressed the grievance. Again, not an entirely linear development. There was a period in the eighteenth and nineteenth centuries when reasons for going to war were at best given as a cherry on the pie; the pie itself being that any sovereign state claimed the sovereign right to go to war when it pleased.

Other criteria have also varied. Let us return to the term ‘war’ derived from werra, still existent in the German word Wirren, Wirrnis: confusion. As I have said, it was introduced in the Middle Ages to stand alongside the word bellum for war of the most formal, regulated sort. But, in the Middle Ages, despite its original meaning of chaos, werra was also soon taken as a category with its own rules, also called vendetta, feud, private war. The crucial difference here between bellum, the most formal or public war, and private war was that the latter was not authorised by the highest authority around – that is the pope, the emperor or a monarch – but took place on a lower level, between barons and their retainers. While popes, emperors and kings, from at least the High Middle Ages, sought to stop their nobility from going to war against one another (and of course, from rising up against their betters!), they found this very difficult to enforce. Even in the mid-fourteenth century, legal authorities still held that such private wars were fully legitimate, as long as only noblemen started them. One wise pope found a way to outlaw such lower-level wars, and he was copied by a number of his successors. And that way was to proclaim a holy defensive war against an external aggressor was one against Christendom as a whole – the crusade. The argument was made that such a war could only be fought if those going on crusade could rest assured that in their absence their lands would not be attacked by rival claimants to their possession. This worked, sub-state level war was fairly successfully banished, albeit initially only for periods during which crusades took place: private wars continued to be seen as legitimate forms of warfare and were still part of the legal terminology until the late nineteenth century. It is astonishing to think that the Romans had outlawed private war, family vendettas, two millennia earlier! Again, a nonlinear development.

Then let us turn to a criterion that is used to differentiate between war and organised, large-scale criminal activity, in antiquity often referred to as ‘piracy’. The criterion is that war should be ‘politically motivated’. And here’s the rub. Wars are often begun with multiple aims, and one aim that has been recurrent and prominent in resorting to war, throughout history, has been that of making economic gains or preventing economic losses. To the point where one can question whether other aims articulated were not at best secondary and at

8 Vattel: Droit des Gens, I.1.2; Henry Wheaton, Elements of International Law, Carey, Lea and Blanchard, Philadelphia, PA, 1836, p 212f.
worst a disguise for the more important aim of enrichment of sorts. What aims were followed by the Huns, the Mongols, the Vikings or the Selçuk Turks in what we do not hesitate to call their wars? Plunder, extortion, domination, territorial aggrandiseisment. The last of these can be called the extension of power, but it is difficult to differentiate clearly between that and simple enrichment.

This is complicated by the blurred line between politically motivated insurgencies and organised crime: in asymmetric wars between state forces and insurgents, state forces try to cut off insurgents from arms and other vital supplies. As a consequence, insurgents need to turn to criminal networks to assure their supplies and access to weapons, creating dependencies and a blurring of interests. Show me one insurgent movement in modern times that had no links with organised crime. This is complicated even further by the well-studied fact that large-scale criminal organisations – especially mafia-type organisations that incorporate many features of the medieval system of lord-retainer patronage – have constructed for their self-perception a notion of legitimacy, virtuous aims pursued in the interest of greater justice, of rules-bound behaviour (for example you can kill adult males but not children). This can indeed raise the question of whether drug wars might become regulated in the none-too-distant future, in practice if not formally. Think of the collateral damage in such conflicts, which both sides may want to avoid, and think of the precedent of insurgencies and counterinsurgencies, where rules were established, for example for both paramilitary parties in Ireland ringing a specially designated phone line to announce they had planted a bomb to avoid collateral damage.

And then, of course, very importantly, consider the distinction between internal and external war. This is, in reality, difficult to draw. Already the Peloponnesian War was described by Thucydides as having an element of civil war, or factions in all belligerent states favouring either the political system of Athens (democracy) or that of Sparta (monarchy). Most insurgencies have an element of ideological differences to them – even if it is just the question of whether the rich should be able to charge high prices for grain during a famine, or whether the rest of the population should be able to afford bread. More often than not, a neighbouring polity will have an interest in helping insurgents, if only to weaken the government or perhaps gain some influence and support a rivalling ideology that both it and the insurgents support. Show me one insurgency that does not have help from abroad!

Why am I telling you all this? To demonstrate that what people have called war, and what they have seen as a legitimate form of war, has varied over time and can change again in future. I hardly need to elaborate that this, by implication, means that what falls under the remit of the military to deal with, and indeed the rules for dealing with it, may change, possibly even during your careers.
Strategic protagonists

Another closely related element in the definition of war is changing: the definition of the contestants it requires for something to be called a war and not a rebellion and its repression, or banditry. This definition is linked with the supreme authority needed to declare a ‘proper’ or formal war. Also, this definition postulates that war is fought between recognised states. It goes back to Cicero, and subsequently emperors and kings were mighty keen on it, and in more recent times, state governments. Pope Innocent IV, around 1245, issued the Decretal Olim causam inter vos: ‘War, properly speaking, can only be declared by a prince who does not have a superior.’ From the sixteenth century onwards, the prince as incarnation of sovereignty was gradually replaced by the state as the sovereign, and concomitantly, definitions of ‘proper’ war would centre on states as the actors. Classically, in the late nineteenth century, the eminent American jurist Henry Wheaton defined ‘[a] contest by force between independent sovereign states is called a public war’, that is, a proper, legally recognised war in which the laws of war obtained. Even in the twenty-first century, the Israeli law professor Yoram Dinstein, building on Lassa Oppenheim’s work, still insisted that only ‘a hostile interaction between two or more States’ could be defined as war. This insistence that only states can be actors in war is derived from the desire of those in power to preclude others from challenging it.

Reality has challenged this state-centric conceptualisation of war many times, forcing non-state actors to vie for recognition as states (for example as break-away regions or states, or claiming that the prince or government in office was in fact illegitimate, a pretender or a tyrant or practising poor government). It is only after the Second World War that this part of the definition of ‘war’ has been softened up, to include organised violence involving one or more non-state actors. It is the reason we now speak about the law of armed conflict rather than about the laws of war. Again, pointing to this change is important, as it highlights the possibility of further change, particularly if you follow me on the next argument.

History is replete with examples of non-state groups engaging in armed conflict and not always against states. We should also note that the power of states has been waning over the last quarter or even half-century – as already noted by Susan Strange with her seminal book The Retreat of the State, published in

9 Bartolus of Saxoferrato, Secunda super Digesto novo, translation in EW, p 151.
10 Henry Wheaton, Elements of International Law, Carey, Lea and Blanchard, Philadelphia PA, 1836, p 212f.
1996  

— while that of international corporations has been on the rise. Note Elon Musk’s support of the Ukrainian side in the Russo-Ukrainian War in the form of providing space intelligence, or Jeff Bezos’ pledge of US$2 billion to mitigate climate change at the Glasgow COP26: these are actions and payments on the scale of contributions made by small states. Corporations hire private military companies (PMC) to protect their assets; in other words, they have their private armies to protect them. We are seeing the development of relations similar to those between the English and the Dutch East India Companies and their respective states in reverse. But where in the seventeenth to nineteenth centuries it was these corporations that by and by drew in states and state militaries for their protection, we now see corporations increasingly assuming the roles that in the intervening time were thought of as state monopolies. And, these are what we regard as legitimate international corporations. Think now of criminal organisations that have the budget and turnover of a corporation and the clout they can develop. Just as easily as a state, they can hire mercenaries to start or intervene in ongoing conflicts, blackmail a government or deter it from intervening in their criminal activities.

In short, alongside the states that normally are taken to be the strategic actors in armed conflict, or the (mainly) politically motivated non-state actors, we may increasingly see non-state (mainly) economically motivated actors, and rebel groups as combatant parties. We may also see individual tycoons owning large corporations or organised international crime syndicates with clout comparable to states involved in armed conflict.

**Soldiers, mercenaries, rebels and robots**

This has direct consequences for the combatants you are likely to face in the future. Conscript forces have throughout history existed alongside professional soldiers, and before the nineteenth century and the invention of nationalism, no one postulated that professional soldiers must fight only for their native polity. Britons will be shocked by the suggestion that Ghurkhas are ‘mercenaries’, let alone if they are compared with the Wagner Group or other PMCs. Yet both clearly stand in a tradition outside that of the citizen-soldier. France, alongside her 1500-year-old tradition of obligatory military service for all men, has her multiethnic Foreign Legion, again standing in the tradition of hired foreign professionals that goes back to Ancient Greece. In short, PMCs are anything but new, nor is the fact that states draw on their services, alongside those of their own ‘national’ armies. The good news is not all of them are necessarily

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less professional than ‘regular’, state-employed soldiers; in fact, some recruit from among retired personnel of states’ armed forces. The bad news is that in its current condition, the law of armed conflict does not afford any protection to mercenaries, which in turn means they have little incentive to abide by it. Either way, PMCs, meaning companies of soldiers hired by entities (states or other) that might try to deny any responsibility for their behaviour, may well be growing in number and employed more frequently.

Then there are of course irregular forces that you might find yourself confronting – not in the sense of ‘special forces’ or ‘mercenaries’, but in the sense of insurgents, fighters of all sorts who have not been trained by any state-owned military that emphasises discipline, rules and observance of the laws of armed conflict. This is not a new phenomenon, even though it was falsely proclaimed to be new in the 1990s by authors of a journalistic disposition lacking historical knowledge. (It is, incidentally, an old phenomenon that people regard as new or even unprecedented what they do not know from living memory.) What is important to note, however, is that despite allowances being made for such combatants in the Geneva Convention’s additional protocols since 1977, generally our thinking about the conduct of military operations is still dominated by the assumption that regular forces will be fighting regular forces: notwithstanding military academy sessions on asymmetric, irregular, small war, low-intensity conflict, or ‘operations other than war’ (OOAW) or whatever the terminology of the day is.

Then, when it comes to dealing with gangs of criminals, there is the presumption that this is a phenomenon to be left to the police, gendarmerie or border protection forces and not something that regular forces should have to confront. This is not a wise assumption to make if, as I have argued, the distinction between large-scale criminal operations and insurgencies or other non-state actor operations are blurred. They may become more blurred still because some new military technologies – think particularly of what one can do with cheap drones – are so low in cost they can bring considerable advantage to parties in an armed conflict operating on a low budget.

Which brings us to new technologies in general. You don’t need me to tell you that this is where there is unprecedented change. Several revolutions in military technology, from the stirrup to the crossbow and gunpowder to missiles, have transformed warfare, so military technology revolutions as such are not new. But each of them has led to its own particular transformation of warfare. This will also be the case with robots on the battlefield, in the air and in the oceans. The human-soldier of the future will confront machines that to a greater or lesser degree are acting autonomously. They will no longer face just a bullet, shell or missile fired by a human, or a landmine placed by a human or even a
drone steered by a human from afar. No doubt you have been pondering the consequences of these as well as other areas in which artificial intelligence is deployed on the future conduct of war. In respect to its particular consequences, this is indeed an area of unprecedented change.

**Who is the enemy? The civilian conundrum**

Technology also blurs the division between the civilian and the combatant. Again, this is not entirely new. Over centuries, philosophers debated the question of whether the enemy prince’s subjects, or the enemy state’s population, should be regarded as enemies themselves. Thinkers from Christine de Pizan in early fifteenth-century France to Hugo Grotius and Cornelius van Bynkershoek in seventeenth-century and eighteenth-century Netherlands argued that the subjects of an enemy prince or a hostile state were to be seen as enemies. That did not necessarily mean that one should massacre them, but they could be pushed about and their possessions could freely be confiscated by the victor.

Ethnic Nationalism – in good part a German invention of the nineteenth century that spread like a bushfire to other parts of Europe and then the globe – transformed this attitude into also seeing civilian populations as enemies one could target directly, notwithstanding the almost linear advance in customary laws of war and then international law prohibiting just that. The result was that gaps in international law – the absence of legislation against bombing from the air, and the Soviet Union’s non-signatory status to The Hague Rules on Warfare – facilitated the horrendous, quantitatively unique excesses against civilian populations in the Second World War.

This debate between those seeking to protect civilians and those questioning their innocence has been given a new twist by new technologies. Since the Second World War one could legitimately ask whether the engineers building the V-rockets could be classified as innocent or whether children operating flak were non-combatants. In the Second World War, the Catholic philosopher GEM Anscombe could postulate that a distinction between those contributing to the war effort and those who did not could be made: ‘A farmer growing wheat which may be eaten by the troops is not “supplying them with the means of fighting”.' The question remains whether this is so easy: in a democracy: do those who have voted a government into power or kept it in power when it clearly followed an agenda of war not bear responsibility for the war? Things might look different in a totalitarian dictatorship. Even there, should citizens be willing and morally expected to risk imprisonment to protest against their government’s war?
Then let us consider action taken by a government of a belligerent state against citizens of an adversarial state. The Russian government not only poisons its own dissidents and defectors when they flee abroad; but also with its trolls and bots, it clearly already targets foreign civilians who have publicly criticised Russia in a nonviolent way. While our governments impose sanctions on Putin’s oligarchical followers, Russia has declared *individual* Westerners *personae non gratae* in Russia. Think about the possibilities new cyber-technology combined with clever algorithms opens for such individual targeting of selected groups. Targeted interference in an adversarial state might in the very near future mean blocking or hacking into the bank accounts of, say, all officers in the armed forces, all civil servants working in the defence sector, and many easily identifiable individuals beyond that. In the 1990s, we worried about biological weapons that might be developed to target people with a particular DNA. Tomorrow, a Swiss-style internet-based voting system might be the key to interfering in a non-kinetic fashion with all who voted for a particular party with a program critical of a particular foreign power. Will that be war? It could certainly be very disagreeable. My advice: don’t opt for central remotely controlled management of your house, its heating, its refrigerator, its cooker, the garage, the burglar alarm. In short, your Alexa might be a spy, more still, a saboteur.

On a much larger scale, Russia has already interfered with the internet of whole countries – think of the cyber attack on Estonia in 2007. Economic sanctions also target collectivities – but that is an old hat which we already found in sieges and blockades going back to antiquity. In our ‘just-in-time’ economies the effects can be new, of course.

**Conclusions**

The subject of change and continuity in warfare is not exhausted, but your patience must be. Fortunately, my summary can be brief. Given all that I have told you, no extrapolation of long-term trends can lead to the conclusion that the future will be only ‘more of the same’ of past and present. What particular forms of armed conflict the students of this defence college will encounter during their careers I cannot predict in detail. We have recently been surprised to encounter one war fought in good part as though it was an episode out of the Second World War. Or a non-kinetic cyberwar might be in store for us, with massive collateral damage in the form of a famine as food spoils when the refrigeration in storage facilities breaks down because hackers cut off power supplies. Will the belligerents include insurgents? Will they include PMCs? Will criminal
organisations be involved? Will they be conscript forces or professionals? Will civilians be the main targets of military action, in breach of international law? Will we see armed conflicts fervently supporting a bellicose government? We might see anything in between and beyond.

In any case, prepare for a rethink of much of what you have hitherto thought about war.
Australian civil–military relations: distinct cultural and constitutional foundations

Cameron Moore and Jo Brick

The truth is that the civil–military relationship in a democracy is almost invariably difficult, setting up as it does opposing values, powerful institutions with great resources, and inevitable tensions between military professionals and statesmen.¹

Eliot Cohen

Interaction between civilian and military leaders has been the subject of much study in the United States, particularly in more recent times in the context of the Trump Administration and the US armed forces.² In contrast, the Australian civil–military experience has not been the subject of much significant assessment at all. As a result, there is no Australian equivalent of either Huntington’s The Soldier and the State or Janowitz’s The Professional Soldier.³ Still, even if there are common factors in maintaining a relationship of mutual trust, understanding the Australian cultural context and constitutional framework is essential to understanding the foundations of the Australian civil–military relationship. This paper considers the cultural and constitutional foundations of Australian civil–military relations and argues that they must be understood in their own context. The distinct place of military forces in Australian society, Australian military culture itself, and over a century of Australian foreign policy forms the foundation for

interaction between Australian military and civilian leaders. This relationship relies upon a constitutional and legislative distribution of power between the elected civilian government, the senior leadership of the Australian Defence Force (ADF), and the Governor-General as a check on the use of command power for internal political purposes.4

The theory of civil–military relations

Civil–military relations are the foundation for the articulation of strategy. The relationship and interaction between civilian and military leaders is essential in linking the use of military force with the desired policy ends of the state. ‘Civilian control’ of the military is a central doctrine in liberal democracies and relates to the subordination of the military to elected representatives (not civil servants per se). As noted by Cohen, within democracies, powerful institutions of state – the military and civilian leadership – are forced to work together to formulate viable strategy that guides the use of military force in the national interest. Strategic civil–military interaction within liberal democracies is driven by a number of generally accepted conventions, which are influenced by important factors such as authority under law, national identity and military culture.

The question of the control of military forces by the state accompanied the development of standing armies. SE Finer’s work, The Man on Horseback, considered the role of military organisations within different types of political cultures.5 Generally, Finer argues that some states are not able to maintain the regulatory and administrative functions of state without the intervention or assistance of the military. He also discusses the risk arising from an interventionist military culture, in the form of military dictatorships that have manifested around the world. Finer’s main contribution to the civil–military issue is the identification of power relations between military organisations and the organs of state, including discussion of the ‘proper’ place of the military within society.


The potential for tension within this relationship is caused by divergence of interests between civilian and military leadership. Finer’s conception of this tension is the threat that military forces pose to the government itself, because military organisations are postured ‘to fight and win wars’. According to Finer, military organisations have three main advantages over civilian organisations: ‘a marked superiority in organization, a highly emotionalized symbolic status, and a monopoly of arms … The wonder, therefore, is not why this rebels against its civilian master, but why it ever obeys them.’

Civil–military relations do not exist in a vacuum. The relationship between civilian leaders and military commanders at the strategic level is a function of individual background and experience, personality and perspective. These individual factors are, in turn, influenced by the prevailing cultural paradigm and habits of interaction that underlie the relationship. The strength of the military is mitigated by strong civilian institutions and norms where a system or process exists for an orderly transfer of power. Further, where there is a commitment to democratic values by civilian and military leaders, any tension and friction is unlikely to threaten society.

This theory describes the civil–military landscape in Australia to some extent but it does not mean that civil–military controversies or issues never arise. In these situations, the issue then becomes how military and civilian leadership properly engage with one another. This process determines how military force is to be used effectively in the national interest, with the tension being mitigated by cultural aspects or conventions that govern the civil–military interaction.

**Civil–military relations and Australian culture**

**Absence of a ‘coup culture’ in Australia**

Finer’s work focused on the hazard posed by a strong military institution to other organs of state. There have been minor incidents in Australian history that can be loosely considered as military forces challenging civilian power. However, they did not amount to an overthrow of civilian authorities by military forces. During the colonial period, the ‘Rum Rebellion’ is sometimes characterised as a coup d’état by the New South Wales Corps, led by Major George Johnston in 1808. This event involved 400 officers and men marching to Government House to...
dep lone Governor Bligh. However, such events were a common occurrence across the British Empire, and were considered to be more an act of officer insubordination rather than a challenge to the legitimacy of the civil power. After Federation in 1901, the unification of state military forces into the Commonwealth Military Force, and the appointment of a single ‘General Officer Commanding’, created a single officer who could possibly have led a revolt against the civilian government. The first ‘GOC’ was Major General Sir Edward Hutton, who was often at odds with the civilian leadership due to his autocratic style. This was not a circumstance of revolt against the civilian leadership, but a failure of the human relationships that lie at the heart of effective civil–military interaction.

In the years following the First World War, there was public support for the view that the military leaders of the Australian Imperial Forces during the ‘Great War’ would be a better leadership alternative than the civilian government. To this end, there were numerous public calls for General Sir John Monash to lead a revolt against the government; calls that Monash publicly rejected. The other significant event was the dismissal of Prime Minister Gough Whitlam by the Governor-General, Sir John Kerr in 1975. The circumstances were that Kerr did not consult his ministerial advisers and dismissed Whitlam, who led a Labor government with a majority in the House of Representatives. There is much speculation as to what coercive measures Kerr may have taken in the event that Whitlam refused to accept the Governor-General’s decision. One point of speculation was that Kerr was planning to call out the defence force, supported by a broad reading of the Executive Power under the Constitution, but this contention is not supported by any solid evidence. While Coulthard-Clark concludes that Australian military history reveals ‘a remarkable anxiety’ about the possibility of a coup in Australia, he further states that there is only a


11 Coulthard-Clark, Soldiers in Politics, p 185.


14 Coulthard-Clark, Soldiers in Politics, p 197.

15 Coulthard-Clark, Soldiers in Politics, p 201.

16 Coulthard-Clark, Soldiers in Politics, p 201.

17 Coulthard-Clark, Soldiers in Politics, p 201.
minor degree of ongoing concern that a military coup could occur in Australia, ‘[w]hat is presently lacking is motivation for such a treasonous venture.’\textsuperscript{18} As this historical overview indicates, there have been instances in Australian history where a coup could have occurred, however, a coup did not occur. This raises questions of culture.

**The Anzac legend**

The ‘Anzac legend’ – particularly in relation to the narrative of the bushman as the ‘natural’ soldier and its focus on tactical deeds rather than strategic plans – is one aspect of Australian military culture that has had a significant impact on perceptions of Australia’s military forces.

\textquoteleft\textquoteleft[T]he dominant image of the Australian soldier is of the citizen in uniform, the volunteer enlisted only for the duration of the war and therefore able to bring the bush-bred qualities of the natural soldier or the cheeky iconoclasm of the urban larrikin to the business of soldiering.\textquoteright\textquoteright\textsuperscript{19}

As a cultural narrative, these parts of the ‘Anzac legend’ have been immortalised by the official history written by Charles Bean, and tend to emphasise:

the experiences and deeds of ordinary soldiers at the expense of grand strategy, the doings of generals, and the military technicalities of logistics, organisation, training and administration … the ordinary soldier has been celebrated, usually without much thought to strategic context, policy, or even comparison.\textsuperscript{20}

However, this tactical focus narrows the aperture for the professional development of Australia’s military. It diminishes the perceived ability of military professionals to advise the civilian government regarding the use of force in pursuit of national interests. And, it notably excludes the navy and the air force, the more technical services, which have relied primarily upon career professionals rather than citizen volunteers. This is an important factor in Australian civil–military relations because of its effect over the years on the development of the profession of arms, and the public’s perception of it.

The evolution of the profession of arms in Australia commenced with the shifts in perception of the purpose of Australia’s military, from a primarily imperial resource towards a greater focus on national defence. This followed the experience in the

Pacific Theatre during the Second World War, and the establishment of a standing military force in the years after that. Prior to this time, Australia maintained both a volunteer force that could be deployed overseas, and a militia that was not eligible for overseas service. From March 1901, colonial armies became the Commonwealth Military Forces (CMF), which was a part-time force of ‘citizen soldiers’ with a small cadre of permanent military officers. The CMF could only serve on Australian territory. For this reason, the government had to raise volunteer forces, the 1st and 2nd Australian Imperial Force (AIF) to serve overseas during the First World War and Second World War respectively. Legislative changes during the Second World War allowed the CMF to serve in Australian mandated territory (the territories of New Guinea and Papua) during the Second World War.\textsuperscript{21} The Australian Regular Army was then formed in 1947, and as Grey notes, ‘[t]he military profession was to be run by the military professionals’.\textsuperscript{22} These developments were the start of the professionalisation of Australia’s military forces. The impact of the ‘Anzac legend’ remains strong, however. This enduring perception of the military as really only being citizen soldiers with a tactical focus means that further evolution in professionalisation is still necessary, particularly with the current focus on air and maritime operations in Australia’s near region.\textsuperscript{23}

If there is to be a mature and robust civil–military relationship at the highest levels of strategic leadership, this means developing military officers with the necessary knowledge and experience, but also a public and political understanding of the ADF that values Australian military professionalism and strategy, not just tactics.

**Constitutional foundations**

The civil–military paradigm in Australia has evolved as the nation has developed from a dominion of the British Empire to an independent strategic actor. The constitutional underpinning of this relationship has much earlier origins, however. The achievement of Anglo-Australian history has been to harness military power to underwrite governmental power whilst ensuring that such military power remains under the control of government. In referring to the military government of Oliver Cromwell in the seventeenth century, General Sir John Hackett, the Australian-born former Commander-in-Chief of the British Army of the Rhine, and also Principal of King’s College, London, put it this way:

> The harmonious relationship between civil and military power, which has persisted in Britain since then, in which the subordination of

\begin{itemize}
  \item \textsuperscript{21} Australian War Memorial (AWM), Australian Army, AWM website, accessed 21 September 2022. https://www.awm.gov.au/atwar/structure/army/
  \item \textsuperscript{22} Grey, A Military History of Australia, p 4.
\end{itemize}
the military to the civil is fundamental, owes much to this salutary experience.\textsuperscript{24}

There is therefore considerable history behind these constitutional relationships, even if they are not well understood in some respects.\textsuperscript{25} This is perhaps because of their centuries-old character and, as discussed, the relatively recent development of Australia as an independent actor in defence matters. East Timor was the first major campaign with Australia as the lead nation and with an all-professional contingent of personnel.\textsuperscript{26} Until 1999, and now very recently with the 2020 Defence Strategic Update,\textsuperscript{27} Australia has always participated in campaigns as a junior participant in a bigger force. Arguably then, Australia has not really had to consider the constitutional relationship between the military and the executive very often at all.\textsuperscript{28} An improved military professionalism in Australia requires a better understanding of this relationship, both within the ADF and beyond it.

Formal constitutional arrangements cannot prevent militaries from usurping civilian governments. Formal constitutional arrangements also cannot ensure that a military will do exactly what it is told by a civilian government. They cannot prevent cowardice in the face of an external threat or an excess of force in the face of an internal threat. Formal constitutional arrangements can only ever be part of the way in which civilian governments remain in control of military power and protect themselves against it. Still, Quick and Garran, the original commentators on the \textit{Australian Constitution}, saw them as defining the Commonwealth as the national government:

\begin{quote}
The execution and maintenance of the \textit{Constitution}, the execution and maintenance of the Federal laws, and the Command-in-Chief of the naval and military forces, are the foremost attributes of a national government.\textsuperscript{29}
\end{quote}

\begin{itemize}
\item \textsuperscript{25} Hackett, \textit{The Profession of Arms}, pp 191–193.
\end{itemize}
More than this, these arrangements also entrench the principle of military subordination to the civilian government. That these threats have not really materialised in Australia since Federation suggests that, even if not well understood, the current arrangements serve their purpose. It also indicates that the principle of military subordination to the elected civilian government is of fundamental value to the constitutional order.\(^{30}\) As Michael Howard stated:

The dialectic between freedom and security lies at the basis of all political society; however, it may change its form; and the problems which it raises, both for soldiers and for governments, are likely to remain with us until society itself is dissolved.\(^{31}\)

**Command and Command-in-Chief of the ADF**

There is a clear distinction between the command-in-chief held by the Governor-General and the command vested in the Chief of the Defence Force. The *Australian Constitution* reflects this and indicates that the ultimate formal source of authority for military power is with the Crown itself, rather than those who exercise military power on its behalf. There is, nonetheless, a close connection between the Governor-General as the commander-in-chief and the Chief of the Defence Force, because the Governor-General appoints the military commander. Effectively, the right to exercise military power is granted by the Commonwealth’s highest officer.\(^{32}\) The historical basis of the power of the Crown originally resting on military power is clearly evident in this arrangement.\(^{33}\) Section 68 of the *Australian Constitution*, provides that:

The command in chief of the naval and military forces of the Commonwealth is vested in the Governor-General as the Queen’s representative.

It is important at this point to address first the prerogative as to the control and disposition of the forces as the source of the power of command, which s 68 then vests in the Governor-General. It is the authority to determine the organisation, structure, placement, arming and equipment of the ADF. Quick and Garran referred to it as follows:

\(^{30}\) Moore, *Crown and Sword*, p 91.


\(^{33}\) Moore, *Crown and Sword*, p 92.
The command in chief of the naval and military forces of the Commonwealth is, in accordance with constitutional usage, vested in the Governor-General as the Queen’s representative. This is one of the oldest and most honoured prerogatives of the Crown … All matters … relating to the disposition and management of the federal forces will be regulated by the Governor-General with the advice of his ministry.\textsuperscript{34}

Command-in-chief is placed above the level of the elected government. Command-in-chief is not a portfolio that comes and goes in accordance with the priorities of the government of the day. It exists regardless of the policies of the elected government. Command-in-chief is so important that it rests with the leader of the state itself rather than with the leader of the party that forms government. The commander-in-chief is still obliged to act on the advice of the elected government,\textsuperscript{35} but if there is uncertainty as to who the leader of the elected government might be, there is no uncertainty as to who the commander-in-chief is.\textsuperscript{36}

Section 68 sits apart from all of the other executive powers contained within s 61 of the Constitution. Callinan J was expansive on this point in the High Court in the 2007 military disciplinary case of \textit{White v Director of Military Prosecutions}:

In \textit{R v Bevan; Ex parte Elias and Gordon} Starke J saw that section as an instance of the ‘special and peculiar’ provision contemplated for the management and disciplining of the defence forces and so do I. Another way of putting this is to say that the command and which goes with it, namely discipline and sanctions of a special


kind, for the reasons that I earlier gave, are matters of executive power …

The presence of s 68 in the Constitution may even, argue, have further relevance to military justice, with the result that it may not be subject to judicial supervision under Ch III of the Constitution and is administrable only militarily and not by Ch III courts, whether specially constituted or not … If anything this is to emphasize rather than to detract from the unique and special nature of military power and control of it.

A point about s 68 is that it vests a power of command which cannot be rejected or diminished, unlike powers exercisable under s 51 of the Constitution which Parliament may choose not to exercise … there may be a question whether any derogation from the absolute command, including discipline, vested in the Governor-General (in Council) is constitutionally open.

It may be [then] that the means of checking any misuse of that command, or threat of oppression by it, lies with Parliament under ss 64 and 65, in particular in its control of the executive and the raising and appropriation of revenue for the maintenance of the military.

Section 61 vests the executive power of the Commonwealth in the Queen and makes it exercisable by the Governor-General. It includes the powers to conduct war and foreign relations, as well as control the public service and the economic levers of the Treasury. As important as each of these other executive powers are, they are all still susceptible to control and even extinguishment by the parliament. That is to say, the parliament could legislate on any of these


41 CPCF v Commonwealth HCA [2015] 1, [141] [Hayne and Bell JJ]; [277]–[286] (Kiefel J).
subjects to the point of making all of the relevant powers statutory, and in so doing extinguish executive discretion. It has not done so, but the important point is that the parliament is not able to extinguish the express power of command-in-chief in s 68. This would require a referendum under the procedures for constitutional amendment.\footnote{Australian Constitution s 128.} This means that command-in-chief under s 68 must be seen as a special and separate power that it is beyond the power of parliament to control directly. As detailed below, parliament can, and has, regulated the exercise of the command power through legislation, but it cannot remove it from the Governor-General. As much as they might exercise significant control, politicians who are civilian ministers therefore cannot command the ADF.

This is reflected in the legislation and serves the important function of providing some protection from drawing the ADF into internal party politics. It is distinctly different to the command arrangements of the United Kingdom, which operate through the Defence Council and include the Prime Minister and Secretary of State for Defence as part of the chain of command, although not with an individual power of command.\footnote{See Peter Rowe, Legal Accountability and Britain’s Wars 2000–2015, Routledge, 2016, pp 61–62, pp 252–254.} In Australia, the Governor-General appoints the Chief of the Defence Force (CDF) under s 12 of the Defence Act. CDF then has command of the ADF under s 9 of the Act. Section 8 enables the subordination of the military to the civilian government by making the CDF subject to the control of the minister as follows:

1. The Minister has general control and administration of the Defence Force.

   Note: Command-in-Chief of the Defence Force is vested in the Governor-General: see section 68 of the Constitution.

2. In performing and exercising functions and powers under this Part, the Chief of the Defence Force and the Secretary must comply with any directions of the Minister.

Further, s 9(2) of the Act states:

The Chief of the Defence Force must advise the Minister on matters relating to the command of the Defence Force.

Importantly, this does \textit{not} amount to an exercise of command by the minister over the CDF, as the note to this effect in s 8 indicates (referring to the command-in-chief of the Governor-General under s 68). The CDF does not therefore have a
duty of obedience to the minister enforceable under the Defence Force Discipline Act. While the obligation of CDF to advise or comply with the directions of the minister is statutory, it is still administrative in nature. If CDF did not advise the Minister or comply with the minister’s directions, the consequences would be administrative, such as termination of appointment as CDF, rather than penal. Under s 14 of the Defence Act, the CDF or Vice Chief of the Defence Force (VCDF) also have the option to offer their resignation to the Governor-General, whereas in a disciplinary situation, this would not necessarily relieve the CDF or VCDF from liability to prosecution. The advantage of a control without command relationship between the minister and the CDF would appear to be to assert civilian control whilst, as mentioned above, assisting in keeping the ADF apolitical by reducing the potential to draw the military into internal politics or potentially unlawful action.\(^\text{44}\) The significance of this erupted recently. There was controversy over the prime minister on election day instructing the Commander of Maritime Border Command to release information on the detection of a suspected illegal entry vessel, contrary to previous practice. The prime minister’s political party then publicised this information by text apparently with a view to influencing the election.\(^\text{45}\) The concern was the use of the ADF for party political purposes, and this incident illustrated that this is an issue of serious contemporary relevance.\(^\text{46}\)

It is worth considering then that, in the event of a conflict between the Governor-General and the minister, the CDF’s legal obligation is to the Governor-General. Given that the Governor-General has command-in-chief over the ADF and the CDF’s commission as an officer obliges CDF to obey the commands of his or her superiors,\(^\text{47}\) the CDF would be obliged to obey the command of the Governor-General even if it conflicted with the direction of the minister.\(^\text{48}\) This would be,

\(^{44}\) Moore, Crown and Sword, pp 92–93; It is also worth noting the contrast with arrangements for ministerial control of police. Ministerial control of the police is more removed, with ministers only able to give general directions, see Australian Federal Police Act 1979 (Cth) s 37.


\(^{47}\) ‘Charge and Command you faithfully to discharge your duty as an officer and to observe and execute all such orders and instructions as you may receive from your superior officers’. Taken from the author, Moore’s own commission, Order-in-Council of the Governor-General, 1 November 1991.

perhaps, even more the case where the Governor-General issued a general order to the ADF, for example under the call out provisions of Part IIIA of the *Defence Act*.\(^{49}\) The *Defence Force Discipline Act 1982* s 29 makes it an offence for the CDF, or any member of the ADF, to fail to comply with such a general order. Disobedience or failure to comply by the CDF could also be grounds for summary removal from the position of the CDF, not that any grounds would be required.\(^{50}\) Even so, it is not enough for the CDF or VCDF to lose the confidence of the minister alone. Notably, since 2016,\(^{51}\) s 15 of the *Defence Act* has required that termination be by notice in writing on the recommendation of the prime minister. Reserving such a decision to the prime minister strengthens the position of the CDF and VCDF to some extent, without undermining the fundamental principle of military subordination to the civilian government.\(^{52}\)

Even if the convention is that the Governor-General must act on advice, formally only the Governor-General can appoint or dismiss the CDF. While the CDF would rightly be concerned at any exercise of powers by the Governor-General that were contrary to ministerial direction – and should then inform the minister – it would be for the minister to advise the Governor-General to take a different course.\(^{53}\) The CDF would still be obliged to follow the Governor-General’s command or order, over the minister’s direction, until such time as the Governor-General gave a new command or order or terminated the appointment of the CDF. This in itself supports the role of the Governor-General as the guardian of the *Constitution*,\(^{54}\) and with it the principle of military subordination to the *Constitution*.\(^{55}\)

**Discipline and obedience inherent to command**

This leads to the issue of why discipline is so closely related to command. The reasons appear twofold. Any military force, whether subject to civilian control or not, requires discipline to maintain military effectiveness. In the course of duty, a member of the ADF may have to risk his or her own life or take that of another. Further, a key element of civilian control over the military is that the military has to do what the civilian government tells it to do. As Kirby J put it in 2007 in *White v DMP*:

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49 See for example *Defence Act 1903* (Cth) s 33.
51 *Defence Legislation Amendment (First Principles) Act 2015*.
52 *Moore, Crown and Sword*, pp 93–96.
53 On the Governor-General exercising reserve powers, that is, without ministerial advice, see *Twomey, The Veiled Sceptre*, p 10, pp 90–92; *Boyle, The Queen’s Other Realms*, pp 130–135.
It is of the nature of naval and military (and now air) forces that they must be subject to elaborate requirements of discipline. This is essential both to ensure the effectiveness of such forces and to provide the proper protection for civilians from service personnel who bear, or have access to, arms.  

To have members of military forces subject to a duty of obedience assists in direct control of military power. As Lord Loughborough said in the 1792 case of *Grant v Gould*:

> for there is nothing so dangerous to the civil establishment of a state, as a licentious and undisciplined army; and every country which has a standing army in it, is guarded and protected by a mutiny act. An undisciplined soldiery are apt to be too many for the civil power; but under the command of officers, those officers are answerable to the civil power, that they are kept in good order and discipline.

The *Australian Constitution* reflects this relationship between command, discipline and obedience being essential to the constitutional relationship between the armed forces and the government. A connection between command and discipline is clearly drawn in *White* by Gleeson CJ and Callinan J, in addition to the point by Kirby J stated above. Gleeson CJ quoted with apparent approval this contribution of Mr O’Connor’s in the *Official Record of the Debates of the Australasian Federal Convention*:

> You must have someone Commander-in-Chief, and, according to all notions of military discipline as we aware of, the Command-in-Chief must have control of questions of discipline, or remit them to properly constituted military courts.

In 1944 in the High Court case of *Commonwealth v Quince* (‘*Quince*’), Williams J had also supported this view of command and discipline being essential to the constitutional relationship between the armed forces and the government. His Honour stated the following on the power of command, military obedience and the relationship to the Crown:


Australian civil–military relations: distinct cultural and constitutional foundations

Clode proceeds to point out … ‘Of course in war there is no limit to obedience (which is the first, second, and third duty of a soldier at all times) save a physical impossibility to obey. A subordinate officer must not judge of the danger, propriety, expediency, or consequence of the order he receives: he must obey – nothing can excuse him but a physical impossibility. A forlorn hope is devoted – many gallant men have been devoted. Victories have been obtained by ordering men upon desperate services, with almost a certainty of death or capture.’

Much more recently, in Haskins v Commonwealth in 2011, Heydon J also recalled the reasons that military discipline laws are necessary.

In the mournful words of Maitland, it ‘has been the verdict of long experience, that an army cannot be kept together if its discipline is left to the ordinary common law’.

Command and discipline, therefore, provide a constitutional mechanism for ensuring executive power can be affected through the ADF and that the ADF does not usurp executive power.

Parliament

As seventeenth-century principles provide a separation between the civilian government and the ADF, equally they govern the relationship between parliament and the ADF. The tradition of excluding those holding an office of profit under the Crown from the House of Commons dates from the Act of Settlement 1701. It developed, presumably, to prevent the Crown influencing the deliberations of parliament through inducements to individual members. In Australia, no full-time member of the ADF can be a member of parliament as there is a prohibition in s 44 of the Constitution on members of the forces wholly employed by the Commonwealth becoming members of parliament. Reservists may therefore sit but not whilst on full-time military service. This virtually prevents members of the

59 (1944) 68 CLR 227, 255; Moore, Crown and Sword, pp 115–121.
60 Haskins v Commonwealth (2011) 244 CLR 22, 60, quoting Maitland, The Constitutional History of England (1955) 279. On the critical operational need for effective disciplinary law and processes in the Second Australian Imperial Force, and the serious underestimation of this issue at the beginning of the Second World War, see: Lieutenant Colonel Lachlan Mead, ‘We are more concerned with the good soldier than the bad one in war: the Australian Army Legal Department 1939–1942’ and ‘Not exactly heroic but still moderately useful: Army legal work during the Second World War 1939–1945’ in Bruce Oswald and Jim Waddell (eds), Justice in Arms: Military Lawyers in the Australian Army’s First Hundred Years, Big Sky Publishing, Newport NSW, 2014, p 77, p 127.
61 Moore, Crown and Sword, p 124.
62 Act of Settlement 1701 (Imp) 12 & 13 Will 3 c 2.
ADF from becoming ministers as s 64 of the Constitution states that a Minister may not hold office for more than three months without becoming a member or senator in the Commonwealth Parliament. The overall effect reflects the historical concern to keep the military out of internal politics.63 Given the history of the seventeenth century in England in separating military power from political power, it must be one of the most profound limitations on the use of executive power by the ADF as it powerfully asserts the supremacy of the legislature over the executive. In particular, it prevents the military from assuming the power of the parliament, which ensures that government remains in civilian hands and the military remains a servant of the parliament.64

Conversely, as the ADF has no role in parliament, the Commonwealth Parliament has no role in decisions to use military force. As mentioned above, the power to use force outside of Australia derives from the war prerogative or the prerogative to conduct foreign relations (for uses of force less than war such as peacekeeping or peace enforcement operations).65 Decisions to use military force therefore are made by the executive. This is again different to the United Kingdom, given the emerging convention of the parliament there having to approve decisions to use military force.66 The constitutional arrangements in Australia in contrast are much as they have been since the Glorious Revolution in 1688: that the executive government can make decisions to use military force without parliamentary approval but is responsible to the parliament for such decisions; that the executive government must rely upon the parliament to approve the funding of such actions; and that the executive government must answer to the electorate at the end of its term.67

63 Quick and Garran have little to say on the point other than that officers or members of the Imperial Navy or Army were qualified to become members of the Federal Parliament because the disability relates to those paid out of revenues of the Commonwealth, 494–494. Harrison Moore does not add anything further, The Constitution of the Commonwealth of Australia, W Harrison Moore, The Constitution of the Commonwealth of Australia, 2nd ed, Maxwell, 1910, p 116, p 128 and p 168. For a more recent discussion of the issue of military involvement in internal politics in New Zealand see: Douglas White QC and Graham Ansell, Review of the performance of the Defence Force in relation to expected standards of behaviour, and in particular the leaking and inappropriate use of information by Defence Force personnel, Report to the State Services Commissioner, 20 December 2001.

64 Moore, Crown and Sword, pp 99–100.

65 See Cameron Moore, ‘Military law and executive power’ in Robin Creyke, Dale Stephens and Peter Sutherland (eds), Military Law in Australia, Federation Press, Alexandria NSW, 2019, p 69.


Conclusion

Australia’s military and constitutional history is distinctly different to that of the United States, and the United Kingdom. To understand civil–military relations in the Australian context it is essential to understand this history and Australia’s unique constitutional arrangements. Australia has inherited principles from the United Kingdom and borrowed some from the United States (such as having a written, federal constitution), but its constitutional arrangements for civil and military relationships are unique, because its history is unique. History cannot be borrowed or inherited.

The legacy of the English Civil War underpins the relationship between the government and the ADF. There is a deep-seated principle of ensuring that the armed forces remain under civilian control, the purpose of which is twofold – first, to have an armed force that will follow orders, government or military, to defend against external enemies. Secondly, it is to ensure that the armed forces remain under the control of the government and not threaten it. These concerns go to the heart of the existence of an independent state and the existence of constitutional government. As Lord Loughborough stated, it is ‘for the peace and safety of the kingdom’.68

There are limits inherent in the place of the ADF within the constitutional structures for subordination of the military to the civilian government. These include the distinct nature of command, as well as the relationship between the Minister, Governor-General and the Chief of the Defence Force, which reflects the seventeenth century compromise between parliament and the Crown, but have their own Australian structures.

These structures have worked. The military has not overthrown the civilian government. This may be why we do not commonly discuss or understand Australia’s formal structures for civil–military relations and the history which underlies them. It may also reflect a general Australian strategic immaturity to some extent. The Anzac legend means that Australians think more of the citizen-soldier than the military professional, the tactical more than the strategic, the army more than the navy or the air force. If Australia is to be an independent strategic actor and to have a mature understanding of civil–military relations, it is necessary for military professionals, civilian politicians and the public to understand Australian civil–military relations in their Australian context. It is not

68 Grant v Gould (1792) 2 HBL 69, 99–100; 126 ER 434, 450 quoted in Re Tracey; Ex parte Ryan (1989) 166 CLR 518, 557.
enough simply to look to the United States or the United Kingdom, or just the Anzac tradition, to understand how civil–military relationships have worked and should work in Australia.\textsuperscript{69}

\textsuperscript{69} The views expressed in this paper are written in the authors’ academic capacity only and do not represent any official view.
Australia is a continent, not a country.¹

Ambelin Kwaymullina

This statement has always given me pause, both in its simplicity and complexity. Contemporary interpretations (and re-interpretations) of history are slowly breaking the ‘Great Australian Silence’,² although acceptance of the Frontier Wars is only beginning, in terms of acknowledging the actual – not constructed – manner and nature of Australia’s colonisation. Perhaps, we can be said to be entering into the ‘Great Australian Whispering’. Whilst there has been pride in adopting Australian flora and fauna as our national emblems, there has been reticence to adopt Indigenous Australian* history and methods of thinking into our cultural ensemble.

The *sui generis* (of its own kind) nature of Indigenous Australian and Torres Strait Islander thinking is only slowly coming to the forefront of research methodologies. This is a method and manner of thinking that is holistic, nonlinear and relationships

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focused.\(^3\) The latter point is particularly important and goes to the heart of the statement from Kwaymullina. Only with the advent of ocean-going ships did Europe begin to experience an interconnected world that was somewhat akin to the continent of the Indigenous Australians. But with British colonisations, the customs and norms for operating in this interconnected continent were shattered. Recent work across a range of fields have begun to combine existing fragments of customary knowledge,\(^4\) such as assisting with land management and post-colonial cultural osmosis.\(^5\) Yet, Indigenous Australian thinking can be applied to more than bushfire relief and work to improve the health outcomes of Indigenous Australian and Torres Strait Islanders. It can also be applied to questions of sovereignty, armed conflict and deterrence.

This paper addresses a specific issue that modern military strategists are only beginning to grapple with: the spectrum of competition. This term is slowly starting to be used to describe the nature of globalised and interconnected warfare in the twenty-first century, and the inadequacy of terms such as ‘war’ and ‘peace’. This paper seeks to begin exploration (in a nondefinitive manner) through observations of both intra-Indigenous Australian relations and the relationship between Indigenous Australians’ peoples and British colonisers, lessons that can be drawn for modern military strategists in responding to one of the most pressing issues in modern warfare: the ubiquity of cyberspace.

The rise of modern grey-zone operations and the concept of a spectrum of competition is outlined in section I. It does so to highlight how cybersecurity operations can exploit Eurocentric thresholds (enshrined in international law) and critical vulnerabilities in Anglo-Saxon approaches to armed conflict. The paper in section II then canvasses and highlights unique customs and norms that Indigenous Australian developed to de-escalate armed conflict in a highly interconnected continent. This includes concepts such as *junkarti* and *makarrata* that emphasised reconnection and reconciliation amongst sovereign nations, in order to quickly transition to cooperation.

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3. Indigenous Australian is used as the nomenclature as Indigenous Australians is an American-dominated nomenclature, and Aboriginal has various outdated connotations. There is no correct title to be used in a shifting and political field such as this. Indigenous Australian is used specifically as this paper does not seek to use the case study of Torres Strait Islander thinking patterns which the author is not familiar with. Veronica Arbon, Aralithma Ngurkannda Ityirnda: Being – Knowing – Doing: De-colonising Indigenous Tertiary Education, Post Pressed, 2008; Leroy Little Bear, ‘Jagged worldviews colliding’ in Marie Battiste (ed), Reclaiming Indigenous Voice and Vision, UBC Press, 2000, p 77; Mary Graham, ‘Some thoughts about the philosophical underpinnings of Aboriginal worldviews’, *Australian Humanities Review*, November 2008(45):181. [http://doi.org/10.22459/AHR.45.2008](http://doi.org/10.22459/AHR.45.2008)


It is important to recognise and consider the question of Indigenous understanding of sovereignty, as for many Aboriginal and Torres Strait Islander people the Australian nation has always and continues to violate their sovereignty.\(^6\) Legal ambiguity since 1788 (the original year of British colonisation) has been used to systematically deprive Indigenous Australians of their sovereignty under international law and sovereign rights under English laws of conquest.\(^7\) Deploying an Indigenous Australian understanding as the basis of a model for cybersecurity may be problematic given the issue is connected by many with the of a lack of meaningful reparations and the framing may invite criticism; some acknowledgement of this issue may be necessary. However, it is also necessary in the spirit of reconciliation to be able to accept underlying issues with Australia’s colonisation and, with openness and transparency, embrace both the impact and consequences of comments upon sovereignty. Canvassing a dialogue on the spectrum of competition that existed in Indigenous Australia can go a long way toward dispelling broader misunderstandings of pre-contact Australia as either completely un-warlike or incapable of resistance warfare post-contact. Recognising this, in the process of reconciliation, can not only inform Australia’s response to cybersecurity issues but also assist in countering historic, racist stereotypes of early colonial Australia – namely, that Indigenous Australians lacked a warrior culture (compared to, say, the Maori with whom a treaty was made). Section III accordingly seeks to apply some Indigenous Australian legal concepts to modern cyber conflict in order to demonstrate how Australia, by embracing its 60,000-year history, can compete in the twenty-first century.

**Section I: War, peace and the grey in between**

There is no common definition of ‘grey-zone’ activities and operations. Rather, it is as one of a range of terms used to describe activities designed to coerce countries, in ways that seek to avoid military conflict.\(^8\) Military conflict, in turn, can occur when certain thresholds of international law are met. These thresholds are inherently political and are often set rather high, harking back to Greco-Roman legal frameworks which recognised a distinct, binary, state of international relations: peace or war. Augustus Caesar exemplified this when, during his reign, he boasted he had closed the doors of the Temple of Janus,\(^9\) having achieved


\(^8\) Department of Defence, *2020 Defence Strategic Update*, DoD, July 2020, sections 1.4 and 1.5.

a state of peace within the Empire.\textsuperscript{10} It is a linear construct that has continued in Western political and military thinking, best epitomised by Oppenheim’s (and Tolstoy’s) works on war and peace.\textsuperscript{11} The High Court of Australia’s jurisprudence is only slowly beginning to recognise a form of warfare outside of declared war.\textsuperscript{12}

War, in Roman and later European thinking, relates to ‘the contention between two or more States, through their armed forces, for the purpose of over powering each other, and imposing such conditions of peace as the victor pleases’.\textsuperscript{13} It required violence and an armed force. This threshold has arguably lowered, requiring merely a use of force to trigger some sort of international law prohibition.\textsuperscript{14} Importantly, international law views force as physical. Accordingly, by Western standards and as reflected in international law, economic or informational pressure does not and cannot meet these thresholds.\textsuperscript{15} These so-called ‘sub use of force’ operations neatly exploit the Western thresholds of ‘war’ and ‘peace’. This was best recognised by Chief of the Russian General Staff, Valery Gerasimov, who reflected upon the effectiveness of Western political warfare in 2013:

\begin{quote}
The very rules of war have changed. The role of non-military means of achieving political and strategic goals has grown, and in many cases, they have exceeded the power of force of weapons in their effectiveness … In North Africa, we witnessed the use of technologies for influencing state structures and the population with the help of information networks.\textsuperscript{16}
\end{quote}

Thus, by avoiding traditional kinetic warfare as defined in international law, states are able to avoid the laws of armed conflict that would otherwise define, dictate and limit their activities, obligations and rights. Avoiding hard thresholds of international law, and remaining within the grey zone, have distinct tactical and strategic benefits. It limits potential for escalation through deniability; it provides flexible courses of action across multiple levers of national power; and are relative

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\textsuperscript{12} \textit{Thomas v Mowbray} (2007) HCA 33, 233 CLR 307.
\textsuperscript{13} Oppenheim, Volume 2, p 115.
\textsuperscript{14} Tom Ruys, ‘The meaning of ‘force’ and the boundaries of \textit{jus ad bellum}: are “minimal” uses of force excluded from UN Charter article 2(4),’ \textit{The American Journal of International Law}, 2014, 108(2):159–210; p159. [\url{https://doi.org/10.5305/amerjintlaw.108.2.0159}]
[\url{https://www.jstor.org/stable/27033641}]
\end{flushright}
low cost. The controls and limits placed on states after the Second World War by the creation of the collective security apparatus of the United Nations, and particularly the United Nations Security Council, brought with them the threat and fear of third-party intervention in what were previously protected, sovereign affairs – if certain thresholds were met.

This has led to a shift in military lexicon to a ‘new’ form of warfare (noting, of course, that grey-zone operations have occurred since the advent of recorded military history). Instead of binary constructs of war and peace, we now operate across the spectrum of competition. I emphasise ‘new’ because, as will be seen below, this state of affairs was commonplace within Indigenous Australia. As a ‘new’ doctrine its exact content still oscillates: the United States recognises four states of affairs (cooperation, competition, containment and conflict), while Australian doctrine recognises three (cooperation, competition and conflict). Being an Australian military officer, I will utilise the latter definition. Core to the doctrine, however, is a recognition of an international system, simultaneously and concurrently oscillating between different states of affairs.

In this mental mode, competition is a constant whilst the other states of affairs are temporal – that is, they fluctuate and transpire through deliberate actions and unintended consequences. The model is nonlinear, unlike the concepts of peace and war, and reflects the state of affairs experienced within Australia pre-colonisation.

**Section II: Indigenous Australian laws of war**

There has been much written on what Indigenous Australia was, and was not. The difficulty, however, is that traditional Indigenous Australian warfare ceased over a century ago, with oral accounts detailing specifics now rare. Moreover, such stories remain the cultural property of specific communities, fragmented across

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18 It is for this reason that Mary Kaldor suggested that, with state borders frozen and the ability for nations to expand their territory now neutered, war would transform from ‘old war’ to ‘new war’; see Mary Kaldor, *New and Old Wars: Organized Violence in a Global Era*, Polity Press, 3rd edn, September 2012.
21 Kelly McCoy, ‘In the beginning, there was competition’, *Modern Warfare Institute* website, 11 April 2018. https://mwi.usma.edu/beginning-competition-old-idea-behind-new-american-way-war/
collections of sovereign Indigenous Australians as well as across trans-national relationships and networks (who may be initiated or un-initiated; Indigenous or non-Indigenous).\textsuperscript{23} Whilst there are some artistic depictions of intra-Indigenous warfare from 6,000 years ago, these fragments are not conducive to a larger analysis.\textsuperscript{24} For this reason, the most available evidence (although not all) is found within written records post-colonisation. Explorers and early settlers offered numerous observations, although their accounts also manifest nineteenth-century biases and ignorance. This drawback is somewhat softened by relying on present day Indigenous informants to interpret colonial accounts of what was witnessed. There remains nonetheless difficulty in navigating the camps and schools of thought within Indigenous Australian studies, and this paper does not seek to comment on the apparent correctness or lack thereof for others.

Whether collective armed conflicts occurred within forager societies, and particularly in pre-Contact Australia, became ‘one of the most disputed topics of social anthropology for decades’.\textsuperscript{25} There has been deliberate avoidance of the topic, perhaps due to self-censorship. Military historian, John Connor points out that Peter Turbet’s study of traditional Aboriginal society in the Sydney region makes no mention of warfare,\textsuperscript{26} even though almost half his section on artefacts is devoted to weapons. Likewise for the same region, Michael Martin’s \textit{On Darug Land} (1988) asserted that ‘traditional Indigenous society was not an internally hostile one’.\textsuperscript{27} For the \textit{Oxford Companion to Australian Military History}, Peter Dennis wrote that ‘the egalitarian, non-cohesive nature’ of Indigenous Australian society precluded complex military strategy.\textsuperscript{28} Meanwhile, military historian Jeffrey Grey concluded, Indigenous Australian peoples ‘could not organise anything akin to a battle’.\textsuperscript{29} Even Richard Broome, whose work long formed the basis of current perceptions of Indigenous Australian society, argued pre-colonisation

\begin{thebibliography}{99}
\bibitem{23} Yunkaporta, \textit{Sand Talk}, p 12.
\bibitem{27} Michael Martin, \textit{On Darug Land: An Aboriginal Perspective}, Greater Western Education Centre, St. Mary’s, 1988, p 11.
\end{thebibliography}
conflict ‘was more often related to domestic violence, social feuding and the practice of tribal criminal law than to war as such’.  

Yet, war and warfare were an integral part of Indigenous Australian society: Lloyd Warner opined in *Black Civilization* that ‘warfare is one of the most important social activities of the Murngin people and surrounding tribes’.  

The Murngin people are covered in more depth below for their process of *makarrata*. Governor Philip noted the strong warrior culture of the Eora people, naming an area of Sydney after his impression: Manly. Peter Sutton in 2009 produced *The Politics of Suffering*, where he conceded that neither the ‘simplistic... racist’ image of the nineteenth century nor the ‘idealised and romanticized’” interpretation of Indigenous violence sufficed. Sutton discerned from the works of Stanner, Warner and his own collection of early encounter stories that there were large-scale fights, pitched battles, skirmishes and peacemaking ceremonies.  

Archaeological evidence supports these academic findings, indicating the existence of complex and large-scale military engagements within hunter-gatherer societies, such as Ray Kerkhove, a Queensland historian, in his works on the complex military structures of Indigenous Australians. Accordingly, the following observation of Kwaymullina on pre-colonisation Australia is worth noting:

> Countries are now often spoken of as if they form a single body of law. But the use of the singular to describe these legal systems, along with the grouping of our nations under the descriptor ‘Aboriginal’, hides a truth: that the Aboriginal legal tradition was always an international tradition. Aboriginal Nations formed complex networks of relationships, traded goods, entered into negotiations over shared law spaces, respected each other’s boundaries and were subject to consequences if they did not.

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33 Hercus and Sutton (eds), *This Is What Happened*.
It is these consequences I wish to discuss through the lens of cooperation, competition and conflict. Specifically, there is benefit in canvassing the issues of competition and conflict, and the fluid transition between these two states of affairs.

Competition implies rivalry – as Kelly McCoy has opined, the term covers a state of affairs ‘that is older than warfare itself… it is the original politics’.39 Luckily research has begun to uncover and analyse these causes of competition within pre-colonisation Australia. Christophe Darmangeat recently analysed hundreds of early accounts of intra-Indigenous conflicts to develop an extensive database and publish the first comprehensive examination of Indigenous Australian warfare in over a century: *Justice and Warfare in Aboriginal Australia*.40 Darmangeat’s work, which is visually depicted in the below Table 1, concluded that was competition largely over land, resources and women.

Table 1: Intra-Indigenous conflict

<table>
<thead>
<tr>
<th>Triggers</th>
<th>Number of Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rights over women</td>
<td>63</td>
</tr>
<tr>
<td>Vengeance</td>
<td></td>
</tr>
<tr>
<td>with respect to women</td>
<td>8</td>
</tr>
<tr>
<td>with respect to sorcery</td>
<td>6</td>
</tr>
<tr>
<td>with respect to non-specified motivation</td>
<td>18</td>
</tr>
<tr>
<td>Property</td>
<td></td>
</tr>
<tr>
<td>with respect to trespass over border</td>
<td>3</td>
</tr>
<tr>
<td>with respect to trespass of property rights (other than women)</td>
<td>5</td>
</tr>
<tr>
<td>Miscellaneous</td>
<td></td>
</tr>
<tr>
<td>with respect to accusation of ritual fault</td>
<td>4</td>
</tr>
<tr>
<td>with respect to preventative conflict</td>
<td>1</td>
</tr>
<tr>
<td>with respect to taking of kidney fat</td>
<td>1</td>
</tr>
<tr>
<td>Unknown cause</td>
<td>106</td>
</tr>
<tr>
<td>Total</td>
<td>215</td>
</tr>
</tbody>
</table>

39 McCoy, ‘In the beginning, there was competition’.
Almost half of the incidents Darmangeat located had no known or stated cause. This means any supposition about motivation must be viewed with caution. Nevertheless, of the remainder, Darmangeat noted that despite early literature advocating that the normal casus bello as violation of territory, disputes over women constituted nearly two-thirds of known conflicts, and vengeance (outside of rights over women) about a quarter. The effects of these causes of conflict have been assessed elsewhere. It is only necessary for the purposes of this paper to focus on interactions with land, and its impact on sovereignty.

It is clear that some disputes arose from trespass or were territorial. Such a finding is not surprising. Although Indigenous Australians for the most part prefer to call themselves ‘People’ of various language groups (for example Arunta, Kurnai), there were distinct language groups who linked their sense of self to their territory. As Colin Pardoe notes, the names of individuals on the Murray (Barpa Barpa, Wemba Wemba, Wadi Wadi and Yorta Yorta Peoples) all translate as ‘No, No’ in their respective languages, underscoring their right to admit outsiders into their lands. This language trait is found all along the east coast of Australia in particularly fertile lands, which facilitated larger (and more sedentary) populations than inland Australia. The accounts of early settlers, such as Watkin Tench (of the First Fleet) in April 1791, document these territorial rights. Tench was travelling with two Indigenous men named Boladeree and Colbee when he witnessed the following exchange:

    Colbee no longer hesitated, but gave them a signal of invitation, in a loud hollow cry. After some whooping and shouting, on both sides, a man, with a lighted sick in his hand, advanced near enough to converse with us. The first words, which we could distinctly understand were, ‘I am Colbee, of the tribe of Cad-i-gal.’ The stranger replied ‘I am Ber-ee-wan, of the tribe of Boorooberongal.’ Boldaree informed him also of his name, and that we were white men and friends who would give him something to eat. Still he

41 George Arden, Latest Information with Regard to Australia Feix, the Finest Province of the Great Territory of New South Wales, Arden & Strode, Sydney, 1840, p 96; Edward Curr, Recollections of Squatting in Victoria, then called the Port Phillip District (from 1841 to 1851), George Robertson, Melbourne, 1883, p 244; John Fraser, The Aborigines of New South Wales, Charles Potter, Sydney, 1892, p 224; Gideon Lang, The Aborigines of Australia, Wilson & McKinnon, Melbourne, 1865, p 5; Norman B Tindale, Aboriginal Tribes of Australia, University of California, Berkley, 1974, p 24.


43 Yunkaporta, Sand Talk, p 22.
44 Pardoe, ‘Conflict and territoriality in Aboriginal Australia’.
seemed irresolute. Colbee therefore advanced to him, took him by the hand, and led him to us.\textsuperscript{46}

Tench was lucky that his guides could converse. Early settlers were often struck by the fact that their Indigenous guides often passed beyond their linguistic range after only days of travel. Louis de Freycinet was surprised by the homogeneity of cultures in the continent, but questioned ‘how, despite all these similarities, is it possible to explain the infinite diversity of languages that are encountered at almost every step?’ The conclusion, he posited, was that it ‘obviously results from the tight closed circle that each group occupied’ and the ‘paucity of contact between groups’.\textsuperscript{47} In other words – the diversity of languages amongst Indigenous Australians people is indicative of long standing and static population groups. James Dredge concluded the same, that Indigenous Australians were ‘divided into a number of petty states … entirely distinct from each other’, which could be ‘large or small, weak or powerful’.\textsuperscript{48} This implies at least an interpretation of belligerent strength in the large or powerful Nations. Victorian pioneer Edward Curr also noted that Indigenous Australians held their ‘territory… against all intruders’.\textsuperscript{49} While Curr was potentially talking about holding territory against European intruders, it seems open to interpretation that it may have involved other Indigenous peoples as well.

The observations of other early settlers are thus surprising: that Indigenous groups ‘do not seem to covet the territories of their neighbours’.\textsuperscript{50} Peter Gardner determined that Indigenous Australian territories were usually of near-equal size (relevant to available resources), suggesting no particular group had integrated and assumed dominance over another.\textsuperscript{51} Gardner’s determination has pervaded the Australian community’s interpretation of Tindale’s map, and the wider public discourse. Yet if we look at Tindale’s map, there are demonstrable differences in particular language groups to their neighbours: such as the hegemons of the Wiradjuri and Kamilaroi Nations in what is now New South Wales, or the smaller Kurnai in Victoria. Colonial observations, and recorded sizes of Indigenous Australians, were immaterial to belligerency. Edward Parker, a protector of Aborigines at Port Phillip in the 1840s, wrote:

\textsuperscript{47} Louis de Freycinet, \textit{Reflections on New South Wales, 1788–1839}, (Thomas Cullity trans), Hordern House, 2001, p 105.
\textsuperscript{49} Edward M Curr, \textit{The Australian Race}, John Farnes, Melbourne, 1886, Volume 1, p 69.
I found on my first investigation into the character of these people, that the country was occupied by a number of petty nations, easily distinguished from each other by their having a distinct dialect or language as well as by other peculiarities. Each occupied its own portion of country and so, as far as I could learn, never intruded into each other’s territory except when engaged in hostilities or invited by regularly appointed messengers.52

Parker’s observation about distinct portions of country was replicated across the continent. For some Indigenous Australians, territorial control was evidenced, as anthropologist Norma Tindale observed, partly ‘by reason of knowledge’.53 Understanding the annual cycle of Country, and as demonstrated through Dreaming Stories, Indigenous Australians confirmed and reaffirmed their ownership of land. Davis and Prescott, in their *Aboriginal Frontiers and Boundaries in Australia* highlighted this when discussing the succession of territory in both peaceful and belligerent ways.54 Discussing the Yolngu acquisition of territory through patrilineal descent, they noted an instance of where the Gorryindi clan of the Yanhangu language group no longer had viable patrilineage due to the old age of the senior patrilineal descendant. They continue:

> Therefore, the Malarra and Gamalangga clans have begun a process whereby Gorryindi territory will be fused into the remaining clans of the Yanhangu language group and responsibilities for their territory will be apportioned between the surviving groups. To this end, several of the sub-territories are now no longer identified as Gorryindi but as Yanhangu, thus making them available for re-identification at a later stage.55

The availability of the land led to constant friction of control: Gamalangga men set up a permanent camp to advance their claim to the territory and slowly changed their ritual cycle to emphasise their enduring connection.56

Elsewhere in the continent, static territorial lines were evident. The Minjungbal or Ngandowal Peoples of Tweed Heads, New South Wales, have oral records of strict territorial outlines.57 The Minjungbal Aboriginal Culture Centre, a repository

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53 Norman B Tindale, *Aboriginal Tribes of Australia*, University of California, 1974, p 72.
of local Elder knowledge, records that each clan of the Minjungbal people – the Murwillumbah Clan, the Coodjingburra Clan and the Moorung-Moobar Clan – placed large pieces of quartz as stone markers on the borders of their respective territories, to confirm and proclaim their physical domains. The importance of stone, unique to each district, was continually emphasised within the ceremonies of the Minjungbal, particular in their initiations, where the separate clans would bring their rocks to mark the Bora rings. In this way, each generation of initiates were alerted to the possessions of their neighbours.

Territorial competitions would often culminate in conflict. In Arnhem Land, Australian anthropologist and sociologist Lloyd Warner found a distinction between milwerangel and ganygarr.58 Milwerangel was a prearranged pitched battle that involved a number of clans; ganygarr, by contrast, was larger, more regional and somewhat chaotic and built up over long periods of feuding. Ganygarr involved specially decorated symbolic spears, less restrictions and a higher death toll than milwerangel.59 Notwithstanding these regional differences, some general points on restrictions to warfare can be drawn, as is how these conflicts were regulated in order to facilitate cooperation, competition and conflict.60 that is central to this paper’s thesis.

Indigenous Australian warfare can be argued to have been characterised by principles of: equity in damages; avoiding unnecessary wounding or killing; and a cultural barrier on acrimony. These three concepts (which differ from the Eurocentric rules that have evolved to regulate the quite high threshold of ‘war’61) can be applied in the modern era in a multitude of ways: to provide methods in which sovereignty can be protected in an era of competition; methods to avoid escalation; and a method of thinking to promote empathetic international relations.

Section III: Modern application

Following from the above, a number of factors built into Indigenous Australian society tended to limit the extent of a conflict’s lethality and overall destructiveness, for both the attacker and the defender. These structures were not absolute and they may or may not have originated as deliberate efforts to restrain war, but


60 See for instance White and Kerkhove, Indigenous Laws of War, for more in-depth analysis of Indigenous Australian laws of war.

there is little doubt they served that function in practice. There is strategic benefit, then, in seeing how these cultural restrictions can be applied in the globalised twenty-first century.

**Sovereignty to be protected**

The first lesson to be drawn from Indigenous Australian approaches to thinking is the importance of sovereignty and defending it against any and all infringements.

Sovereignty has been subject to heavy academic commentary and criticism — is it a rule (to be enforced)? or a principle (that should be abided by)? The position is presently ‘unclear’, although states are slowly starting to take public positions and cement their interests. A clear example of grey-zone operations fragmenting sovereignty are the threats of influence/interference operations.

Australia defines interference operations as covert, corrupt or coercive measures that attempt, inter alia, to affect the exercise of an Australian democratic or political right or duty. Whilst cyber-enabled interference operations may seek to corrupt the information environment through hack-and-leak operations, they can also occur in a more direct manner: cyber-enabled interference operations targeting voting infrastructure. Information operations can also extend to the use of ransomware to disable critical infrastructure, or botnet attacks to disable the banking, telecommunications or transport systems.

States have said very little about the interrelation between information operations (IOs) and sovereignty. The Netherlands has opined that ‘the precise boundaries

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63 Harriet Moynihan, *The Application of International Law to State Cyberattacks: Sovereignty and Non-intervention*, Chatham House, 2 December 2019, p 51. https://www.chathamhouse.org/2019/12/application-international-law-state-cyberattacks. ‘In due course, as further state practice and opinio juris emerge, a cyber-specific understanding of sovereignty may develop, much like that developed for other domains of international law. In the meantime, because it is unclear whether there is a limit or threshold to violations of sovereignty, states may prefer to use the more clearly established framework of non-intervention where that is possible’.


65 *Criminal Code Act 1995* (Cth) s 92.2


of what is and is not permissible have yet to fully crystallise', 68 whilst New Zealand believes ‘further state practice is required for the precise boundaries of its application to crystallise’. 69 It is here that the Commonwealth of Australia could look to Indigenous Australian thinking to inform its state practice.

Whilst I have raised the historical possibility of Indigenous territorial expansion above, early British colonisers often remarked on the strength by which Indigenous Australians resisted territorial encroachment. The sanctity of Indigenous Australian sovereignty is recognised within Australia when Acknowledgement of Country or Welcome to Country is given. In protecting their Country but not others, Professor Henry Reynolds says, Indigenous Australians ‘affirmed their rights as proprietors’. 70 It is arguable that a decade’s worth of Russian incursions in Ukrainian sovereignty slowly reduced the cost (from an international relations / deterrence model) of breaching the latter’s sovereignty.

In contradistinction, Indigenous Australians consistently and regularly enforced their sovereignty through military power. All members of society were required to uphold custom and law, and to protect Country. The empowerment of all members of society to become critical to sovereignty in turn increased costs for breaching sovereignty.

So too, with direction from the Australian Government, could modern Australians be educated in the critical role they can serve in maintaining sovereignty in an era of cyber. The National Security College at the Australian National University recommended as such in a recent policy paper; 71 and Sir Laurence Freedman remarked on the viability of the model in observing Israeli and Swiss social resilience. 72 Fully empowering all members of Australian society into cybersecurity best practice would constitute a rather novel, but not impractical, form of social resilience. Promoting social resilience in the modern, connected world has been the focus of many states. For instance, in Sweden it is a focus in primary and

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secondary education;\textsuperscript{73} in Argentina it occurs through truth verification bodies;\textsuperscript{74} and in Israel through the use of military personnel to report suspected interference operations and to write comments.\textsuperscript{75} Why not, then, look to the lessons of our Indigenous Australians?

This is not to say that Australia need be belligerent. As I have argued elsewhere, within the cyber domain we have clear constitutional authority to take proactive steps to defend ourselves and to punish those who interfere with our domain reserve.\textsuperscript{76} There are, of course, political and strategic reasons we may not wish to; but the option remains.

By maintaining the position that sovereignty is a rule, rather than a principle, Australia as a middle power can seek to credibly signal what it will and will not fight. The Australian Department of Foreign Affairs and Trade in 2019 provided an international law supplement, updating its interpretation of legal rules and their application.\textsuperscript{77} Australia held that coercion means a targeted state is effectively deprived ‘of the ability to control, decide upon or govern matters’,\textsuperscript{78} which can result from cyber operations that ‘manipulate the electoral system to alter the results of an election in another State, intervention in the fundamental operation of parliament, or in the stability of States’ financial systems’.\textsuperscript{79} In 2021, the Australian Government stated:

> The use by a State of cyber activities to prevent another State from holding an election, or manipulate the electoral system to alter the results of an election in another State, intervene in the fundamental operation of Parliament, or significantly disrupt the functioning of a States’ financial systems would constitute a violation of the principle of non-intervention.\textsuperscript{80}

\begin{flushright}
\textsuperscript{73} See Swedish Civil Contingencies Agency, MSB website, \url{https://www.msb.se/en/}
\textsuperscript{75} Peter Singer and Emerson Brooking, \textit{LikeWar}, Hachette, 2018, p 198.
\textsuperscript{77} Department of Foreign Affairs and Trade, \textit{Australia’s International Cyber Engagement Strategy: 2019 International Law Supplement}, DFAT, \url{https://www.dfat.gov.au/international-relations/themes/cyber-affairs/Pages/default}
\textsuperscript{78} DFAT, \textit{Australia’s International Cyber Engagement Strategy}, p 2.
\textsuperscript{79} DFAT, \textit{Australia’s International Cyber Engagement Strategy}.
\textsuperscript{80} UN General Assembly, ‘Official Compendium of Voluntary National Contributions on the Subject of How International Law Applies to the Use of Information and Communications Technologies by States’, p 5.
\end{flushright}
This is a position Germany\textsuperscript{81} and the United States have taken,\textsuperscript{82} as well as some of Australia’s Indo-Pacific neighbours.\textsuperscript{83} New Zealand\textsuperscript{84} and the Netherlands\textsuperscript{85} have advocated a lower threshold. Importantly for this thesis, Australia’s definition, whilst encapsulating IOs against voting infrastructure, does not encapsulate IOs against the information environment. It is here that Australian citizens could be empowered to observe, detect and respond to potential breaches of Australia’s sovereignty by foreign interference.

This is particularly important in grey-zone operations. There is strategic benefit in maintaining that sovereignty is a rule of international law, one that will be protected at all costs (declaring, in a vogue term of today, a ‘redline issue’). It allows for a deterrent posture to be clearly articulated and for levers of national power, including law, to be fully utilised.\textsuperscript{86} There are clear boundaries to what can be declared redline – such as any interventions in elections (state or federal), which may be necessary in light of increasing interference operations.\textsuperscript{87}

This is all to say that sovereignty is a complex term and concept, which has been fragmented by the ubiquity of cyber operations. Existing precedent centres on physical effects and territorial limits. A clear example is that of interference operations, which are centred on cognitive effects.\textsuperscript{88} Whilst not illegal under international law per se,\textsuperscript{89} if Australia takes a strict stance on its interpretation of sovereignty such interference may be deterred. This would be in-line with the strict interpretations of sovereignty Indigenous Australians took with respect to one another.

\textsuperscript{81} UN General Assembly, ‘Official Compendium of Voluntary National Contributions on the Subject of How International Law Applies to the Use of Information and Communications Technologies by States’.

\textsuperscript{82} Stephens, ‘Influence operations and international law’, citing Brian Egan, \textit{International Law and Stability in Cyberspace}, Speech, University of California, Berkeley School of Law, 10 November 2016. \url{https://doi.org/10.15779/Z38CC0TT2C}. ‘A cyber operation by a State that interferes with another country’s ability to hold an election or that manipulates another country’s election results would be a clear violation of the rule of non-intervention’. See also Schmidt, \textit{Tallinn Manual 2.0 on the International Law Applicable to Cyber Operations}, p 313.


\textsuperscript{84} MFAT, ‘The Application of International Law to State Activity in Cyberspace’.

\textsuperscript{85} UN General Assembly, ‘Official Compendium of Voluntary National Contributions on the Subject of How International Law Applies to the Use of Information and Communications Technologies by States’.

\textsuperscript{86} UN General Assembly, ‘Official Compendium of Voluntary National Contributions on the Subject of How International Law Applies to the Use of Information and Communications Technologies by States’.

\textsuperscript{87} White, ‘Keeping the peace of the iRealm’.


\textsuperscript{89} Stephens, ‘Influence operations and international law’.
Avoid escalation

The issue with such a strict definition of sovereignty is that it can very easily be breached; this can lead to rapid escalation in force which should be avoided. The trick, then, is to have international norms that mitigate escalation and allow for a quick return to cooperation.

Payback was a notion that underwrote Indigenous warfare; Table 1 highlights this. It related to legitimacy and justice – *junkarti* (literally ‘straight’ in Lardil); or *dalgi giban* (‘to make even’ in Wiradyuri). It provided an exact, tit-for-tat reciprocity for past actions. As Tyson Yunkaporta, an Apalech man, explains, the rules of engagement were that cuts could only be inflicted on the arms, back or shoulders. But these cuts, at the end of sparring, had to be replicated on one another. This meant that no one could walk away holding a grudge. In similar fashion, on the Gulf of Carpentaria, if a wife saw her husband being hit in a duel, she could hit his opponent, and the opponent’s wife could likewise hit the other husband. But neither man could hit the women.

Payback ensured equity and helped curb the violence and brutality of warfare, as few persons cared to endure more than a few blows or cuts in payback for what they had inflicted – let alone be killed for killing an opponent.

In some cases, instead of death, the ‘killing party’ negotiated a deal with the accused or his group once they had successfully ambushed, extorting a significant exchange or substitute from the accused – such as property. In other cases, the older brother or father of the accused was killed in substitution – either offering themselves or being negotiated. Similarly, raiders might attack and kill the first person of another group that they encountered:

Revenge is not necessarily individual. The wrongdoing of one tribesman might have to be suffered for by another ... of the same blood. This blood revenge, which is of course practiced by even the most civilized nations, is often the cause of the death of an innocent white man who happens to be travelling through the tribal ground.

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91 Yunkaporta, *Sand Talk*, p 34.
94 Herbert Basedow, *The Australian Aboriginal*, FW Preece and Sons, 1925, p 150.
As Indigenous society believed blame could be shared by everyone and anyone in a group, both sides would be satisfied with this outcome.

Acting in a de-escalatory manner is not to say that violence or aggression was prohibited. Yet Indigenous cultural norms promoted training to disarm rather than to kill. This has been mirrored by other cultural restrictions in societies that practice warfare across a spectrum (rather than a binary construct), such as the Mexica.\(^{95}\) Indigenous Australians emphasised disabling an opponent in the quickest manner possible. Accordingly, there was a remarkably detailed knowledge of the nervous system, reinforced through training during initiation periods. In 1951, Lumsdaine, reporting on the Yinni Burra People, recorded that a wallaby tail was smeared with white ash and used in training warriors where to strike:

> each stroke was then explained and each nerve point shown. The trainees were not allowed to bruise or break the skin of the opponent. The mere touch of the ash-smeared tail left a white mark sufficient to show if the right place had been hit. Once the trainee could hit the exact place and nerve to paralyse an opponent, they knew then in any series affairs, the same place must be hit with vigour.\(^{96}\)

This perhaps explains how battles, even when they involved large numbers of warriors, generally resulted in flesh wounds and few if any deaths – although there were some very violent exceptions – depending on the intensity of the dispute.

From a cyber domain perspective, this could extend to focusing on tactics, techniques and procedures that allow for temporary knockouts rather than permanent damage. In many ways, distributed denial of service (DDOS) attacks allow for just this. DDOS attacks utilise extended networks of computers (thus, distributed) to flood a targeted system, providing temporary knockout effects (thus, denial of service). If the correct nodes in the computer network are chosen – for example servers that host a website or provide access to particular datasets an attacker seeks to use – then DDOS attacks can be the cyber equivalent of a nerve centre knockout, just as the Yinni Burra People trained for.

Indeed, it is arguable that as nations move towards persistent interference operations, aided by the ubiquity of cyberspace, adopting a ‘no grudge’ approach


\(^{96}\) AM Lumsdaine, Local Aboriginal Data from the Area of the Junction of the Stanley and Brisbane Rivers, Anthropological Society in John Oxley Library, 1951, pp 7–8.
to unfriendly, but not illegal, conduct might grant states more flexibility.\textsuperscript{97} Again, we can look to pre-colonial Australia. It is clear that some forms of trespass (in the sense of deliberate and unlawful incursions into another’s territory) occurred. Sovereign rights were strongly enforced, but of course, caused disputes across most regions – be it raiding for game or some other treasured item.\textsuperscript{98} This was because certain natural resources occurred in greater abundance within certain tribal territories, prompting jealousies and economic inequality.\textsuperscript{99} For instance, relations between the Kukabarak and the Lower Kaurna peoples of South Australia were often strained because ‘the Kukabarak believed them to monopolise the red ochre deposits’.\textsuperscript{100} Alfred Howitt witnessed in the 1870s the Dieri people near Lake Eyre make secret, long-distance expeditions to raid red ochre mines, suffering ‘dangers’ and ‘battles’ as they passed through many hostile territories to bring back large ‘cakes’ of the material.\textsuperscript{101} Such expeditions comprised ‘companies of picked men, (who) came prepared to fight their way’.\textsuperscript{102} The fact that these expeditions were ‘often bloody’ is corroborated by other sources.\textsuperscript{103} Yet, these two nations were able to coexist and cooperate in other manners, particularly land care.

\textbf{Empathetic relations}

Another way to avoid escalation, but potentially the hardest from an Anglo-Saxon perspective, is to approach situations with empathy. I say this is potentially hardest due to the underlying assumptions in Anglo-Saxon (and more generally Western) culture and how this is reflected in criminal law. Primarily, Europeans have placed considerable emphasis on retaliation and punishment for misdeeds, as opposed to empathy.

I observed this most readily whilst in Argentina in 2017, observing the Trial of the Sixth Junta.\textsuperscript{104} Blanket immunities for members of the \textit{junta} were found to be unconstitutional, paving the way for national criminal trials in order to deter any

\begin{itemize}
\item White, ‘Keeping the Peace of the iRealm’.
\item AW Howitt, \textit{The Native Tribes of South-east Australia}, pp 68–80; p 71.
\item Those experiences were recorded in Samuel White, ‘Justice doesn’t come from the briefcase of the white man’, \textit{Perth Journal of International Law}, 2018, vol 3, pp 19–32.
\end{itemize}
future military coups. The resulting trials and punishments, notwithstanding the heinous nature of the junta’s crimes, were excessive. One individual was sentenced to 640 years imprisonment. It is not isolated to Argentina alone. Recent German prosecutions of Nazi staff in concentration camps highlight a wider cultural practice. This is not said with condemnation. It is just a lens through which European practice needs to be critically examined if it is to be applied in cyberspace.

There are alternative perspectives. William Lloyd Warner was an American sociologist and anthropologist who was noted for his studies on class structure. His observations of the Murngin, located in the furthermost eastern and northern parts of the Arnhem Land, provide a particularly important case study for empathetic relations. Warner recounted 72 instances of armed conflict over two decades between the Murngin, of which 50 were payback. The idea underlying Murngin warfare was that the same injury should be inflicted as was suffered – when accomplished, there is satisfaction as opposed to a constant compulsion towards vengeance. This consequently led to the *makaratta*.

*Makaratta* has been promoted as a method through which reconciliation, domestically, can occur since the 1980s. During the late 1970s, many Aboriginal Affairs organisations started to campaign for a treaty to be established between Aboriginals and the Australian Government. To allow negotiations, the National Aboriginal Council (NAC) adopted the word *makarrata* to designate the proposed agreement. In NAC publications, it was given the meaning of ‘things are alright again after a conflict’ or ‘coming together after a struggle’. Underpinning it is an empathetic approach to conflict and reconciliation; it is, by its nature, de-escalatory.

It is by no means the only model. For instance, the *Prun* was a structured ceremonial process of conflict-management that created opportunities for reconciliation among the Mallanpara People (Queensland), which involved a combination of physical venting and pageantry combat, as well as taunting,

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105 White, ‘Justice doesn’t come from the briefcase of the white man’, p 22.
106 White, ‘Justice doesn’t come from the briefcase of the white man’, p 23.
teasing and exchanges of ‘the most filthy epithets’. The Nathagura ceremony amongst the Mallanpara People was held over 14 days, and included distinct phases and activities that lead to an 18-hour fire ceremony. Elders expressed that ‘its object was to finally settle up old quarrels, and to make the men friendly disposed towards one another’. There was a lengthy preparatory phrase, which included a deterioration of most social rules, involving taunting, insults and practical jokes. Kinship and relationship rules were also set aside, and humour and merriment seemed to accompany the loosening of social boundaries.

These two models for a state of empathetic relationships resulted in reducing superfluous injury and death. It may seem contradictory to speak of a military practice wherein killing was deliberately limited, but in fact modern warfare similarly seeks to minimise the amount of loss, even amongst the enemy.

However, for Indigenous Australians, part of the rationale was that a great deal of natural death was blamed on sorcery, as it was common to conduct or commission sorcery against foes and rivals. Consequently, even ‘natural’ death was considered suspicious and was usually – sooner or later – attributed to the sorcery or ill will of a supposed foe. This, then, had to be atoned for by raiding an enemy group or challenging that group to a battle. Accordingly, if the challenged tribe came through the battle unharmed, it was viewed as exonerating their guilt over the natural death. A colonial observer of intra-Indigenous warfare opined:

he must come through it absolutely unharmed before he will be exonerated from all blame in connection with the death.

At any rate, the formal regulation of battles, raids and duels were intended more as a form of cathartic venting than a field of slaughter. In South Australia, an Indigenous Australian informant described what he considered a recent ‘glorious’ (successful) battle. He defined it as successful because:

nobody tumble down, only big one yabber (talk) … My king (Bogie) … say don’t throw spears, only yabber.
There were several checks and balances that helped minimise damage. One was that even if one’s opponent was slain ‘legally’ – that is, during the regulated battle – there could still be furious retributions:

If one is severely wounded (in battle), blood revenge seems … to rest on him (the one who caused the other to be severely wounded) until either he is killed in consequence of it, or he pacifies the friends and relatives of the fallen one by gifts.117

Thus, victory was always a mixed blessing: one gained status as a fighter but left the field as a marked man. Perhaps for this reason, the first sign of blood was often sufficient for the blood-causing side to declare victory. As one observer noted, ‘in tribal fights as soon as a black on either side was wounded, his side began a retreat’.118 A shout would then go around the battlefield and all would temporarily quit fighting to discuss the implications of the casualty’s fall. This would often take the battle off into a new direction.119 There were specific shouts passed around a battlefield if anyone had fallen (often ‘blood’ – indicating a wounding). This enabled hostilities to halt quickly. There were also hand signals for this purpose, even if there had been no injuries:

Should two be playing or fighting, and one wished to quit, he placed his arm straight out from the shoulder, palm down to indicate that the fight was over, as he had acknowledged defeat. Should a male aborigine approach a strange camp and wish to enter, he would give the same sign whilst standing still. Should a dhumka, messenger, approach a strange camp, he gave the same sign, whilst running or walking.120

Early colonial sources also recounted that:

Among other rules was that which prohibited the intentional hitting of an adversary on the shoulders or breast so that the identification scars thereon should be defaced. … In a kin-bumbe (fight for women), the back slashing … is permissible.121

121 Fred Watson, ‘Vocabularies of Four Representative Tribes of South Eastern Queensland with Grammatical Notes thereon and some Notes on Manners and Customs’, The Journal of the Royal Geographical Society of Australasia, 1946, 48, p 95.
These cicatrisation marks were critical to Indigenous Australians, as they identified which individuals were seen to be initiated members of society. Within the cyber domain, the application of this is clear. All action taken should be with the clear knowledge, underlying the inherent vulnerabilities of the ubiquity of cyberspace, that Australia may be hacked just as we may hack others. It may take time, but within a cybersecurity domain there is benefit in creating taboos similar to that of blood or avoiding targeting initiation scars. It might be that the *domain reservee* is protected (the effective functioning of a state, its economic and financial system, or parliamentary processes). It may take time, but if we are to exist in an interconnected world where cyber offensives are easier than cyber defence, then we must be prepared to facilitate norms, such as those that existed in Indigenous Australian.

**Conclusion**

The result of this complex series of laws of war allowed for the spectrum of cooperation, competition and conflict to be easily navigated. Except for longstanding feuds, which could fester for decades, it was observed that Indigenous Australian conflicts ended on a note of complete forgiveness and goodwill. A police officer who witnessed a battle in far north Queensland was astounded at the wholehearted manner in which animosities were dropped:

> I could not refrain from wondering at the entire absence of any ill-feeling or animosity among these people. They had been only a few minutes previously emulating each other in inflicting severe wounds and hurts, nay, even in slaughtering their enemies, and yet, here they were laughing, chatting, and feasting, with every manifestation of goodwill and reciprocal friendship. That the battle… had been fought in downright earnest was only too apparent. But it had not left a vestige of that acrimony which we should have looked for from a like contest between civilised people.\(^{122}\)

Although it may seem unrealistic from an Anglo-Saxon perspective, there are clear alternatives to how war can be fought. Whilst ‘there are possibly insurmountable challenges in asking non-Aboriginal people and Aboriginal people to develop a shared understanding of *makarrata* that might be fully realised’,\(^{123}\) there is a need to, as Australians, make the attempt in the spirit of reconciliation.

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By overcoming colonial biases and turning the ‘Great Australian Whispering’ into the ‘Great Australian Discussion’, it is possible that Australia may increase its intellectual edge and be uniquely prepared to succeed in an era of competition. In order to do so, non-Indigenous Australians are required to ask difficult, self-critical questions and to embrace 60,000 years of norm creation; for, as Audre Lorde warned us, ‘the master’s tools will never dismantle the master’s house’.  

Focus
It is my pleasure as chair of the AJDSS editorial review board to present this collection of commentaries as a focus on conventional deterrence considerations for Australian strategy.

The re-emergence of strategic competition in our immediate region, added to the increasing assertiveness of major powers, has led to a growing call for Australia to develop an effective deterrence strategy. Defence’s most recent Strategic Update places an imperative on designing and delivering an Australian Defence Force (ADF) that is capable of creating ‘deterrent effects against a broad range of threats, including preventing coercive or grey-zone activities from escalating to conventional conflict’.

This definitive shift in emphasis towards deterrence will be a tremendous challenge for the Australian nation and one that will require an integrated whole-of-government strategy and response. Creating an effective deterrence strategy for Australia, as a non-nuclear-armed middle power, will be complicated and require us to think beyond the teachings of classical deterrence theorists.

The first question our strategy needs to consider is what are we trying to deter? While the obvious answer is to stop any attack against Australia or our national interests, that answer is overly simplistic and might be focusing on the wrong end of the conflict spectrum. In a period of heightened strategic competition, where major powers are competing for the influence and authority to determine global norms, it may be more likely that Defence will be required to deter acts of coercion and grey-zone activities. Perhaps, a more worthwhile question to consider is how could the joint force be used to increase both the risk and cost of competition at the lower end of the conflict spectrum?
A strategy also needs a practical way of being applied. For deterrence to be an effective strategy, it requires credible military capabilities that have the potential to inflict substantial cost. Therefore, any Australian strategy will require us to generate a potent joint force that is capable of operating in high-end conflict, but we should be careful to not equate owning capable kit with the ability to deter actions or behaviours. To be successful, we need to apply ourselves to understanding how we create the joint mindset necessary to achieve a truly multi-domain force that adds weight to our credibility to deter. We also need to focus on concepts that allow us to offer the Australian government realistic options to achieve integrated whole-of-government campaign outcomes.

Finally, and perhaps most importantly at this early stage of strategy development, we need to understand the international context within which we will operate. One of Australia’s greatest strengths has always been our commitment to allies and security partners. We should continue to consider how we could combine our efforts with like-minded partners to amplify our ability to deter. There can be very little doubt that strong partnerships, based on mutual interest, give tremendous pause to potential competitors. To achieve that outcome, we will need to listen to our regional partner’s security concerns and find the mutual security ground on which to base our strategy.

Deterrence isn’t a new concept, but the application of it to today’s emerging strategic context will require a novel and considered approach. Anything we can do now to build the intellectual knowledge necessary to inform our future strategy should be considered a worthwhile and essential endeavour.
What is integrated deterrence?  
A gap between US and Australian strategic thought

*Van Jackson*

The Biden administration has internalised and promoted a concept it calls ‘integrated deterrence’, which it claims is not only the centrepiece of its defence strategy but also a key concept in its overall statecraft.¹ But what is it? How does it change what the United States does or invests in militarily? And what are its implications for friend and foe alike? There is much at stake for America’s allies in understanding how Washington’s thinking about deterrence might be changing. This should be especially the case for Australia, whose defence community appears to have metabolised the prospect of a belligerent or revanchist China as a challenge of conventional deterrence against a nuclear-armed great power. Therein lies both trouble and promise.

This article ties together two threads – deconstructing the meaning of US officials rallying around the phrase integrated deterrence, and situating Australia’s self-identified security problematique in relation to it. I argue that America’s strategic evolution towards integrated deterrence is conceptually thin, misaligned with Australia’s burgeoning focus on conventional deterrence and fleeting. American strategic culture is increasingly volatile, capable of large swings between extreme military caution and heedless militarised bluster. Integrated deterrence is a buzzword expressing a cautious, risk-averse disposition on a spectrum of US risk propensity that also includes destabilising attitudes, the intellectual foundations of which are no less flimsy than the cautious alternative that integrated deterrence represents.

For Australia, conventional deterrence of a nuclear-armed adversary is a risky, high-ambition task. Success will depend on many factors over which Australia has little control, including geography, the offence–defence balance, whether it fights from defensive positions, and – for the foreseeable future – not just the reliability but also the competence of the United States. Washington’s concept of integrated deterrence, by contrast, implies more modest ambitions, greater preoccupation with avoiding escalation and gradual burden shifting to allies like Australia – all while throwing America’s strategic competence into doubt by failing to offer a workable theory of coercion against nuclear great powers. This gap in alliance dispositions is a major risk for Australia. Managing it will require making one of three fundamental strategic choices: build robust Australian theories of independent conventional deterrence; divest Australia from the anti-China conventional deterrence mission altogether; or develop a force planning division of labour that deepens Australian dependence on the United States while expanding the former’s role as a frontline shock absorber in great power rivalry.

The remainder of this article proceeds in three parts. The first contextualises integrated deterrence as part of a longer US tradition of trafficking in conceptually thin rhetoric about deterrence, which shifts from presidency to presidency. The second part makes the case that the greater meaning of integrated deterrence relates to escalation control, not preventing war or territorial aggression. The third part draws out the merits and risks in the strategic choices that both the gap in alliance strategic thought and US volatility present to Canberra.

**Addicted to adjectival deterrence**

US scholars and practitioners of deterrence have always been susceptible to conceptual fads, as their ideas tend to trail behind whatever interesting problem occupies the presidency of the moment.

The Reagan administration, for instance, sought the ability to turn any US–Soviet war into a global one. This birthed tremendous discussion around the concept of horizontal escalation, which was fraught with controversy and abandoned by President George H W Bush, but only after much ink had been spilled taking it more seriously than scholars thought it warranted.² The Clinton administration

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moved away from a launch-on-warning nuclear deterrent posture—a gesture favouring stability in a low-threat environment—but also entertained using the threat of nuclear retaliation to deter chemical-weapon or biological-weapon attacks. This generated substantial analytical attention on the risks of self-made, unwanted, and avoidable ‘commitment traps’—lowering the threshold for nuclear weapons use with the ironic aim of avoiding any use of ‘weapons of mass destruction’, nuclear or otherwise.

The twenty-first century, in turn, was supposed to usher in a new wave of deterrence thinking that never came about. Instead, the community of US experts concerned with deterrence has entered a degenerative phase, fetishising adjectival deterrence—buzzwords that hint at new ways of doing or thinking about deterrence but that fall short of doing so. Tailored deterrence, complex deterrence, cross-domain deterrence and grey-zone deterrence have all become focal points for research and strategic doctrine the past 20 years.

While these phrases are rooted in real-world strategic problems, they have generated precious few insights about deterrence that were not already part of the strategic studies canon; the problems themselves are not even necessarily problems of deterrence. In the George W Bush era, ‘tailored deterrence’ was a popular way of pushing back on the then prominent neoconservative assertion that deterrence would not keep America safe (the subtext of which was that pre-emptive war would). In the Obama and Trump eras, ‘cross-domain...
deterrence’ and ‘grey-zone deterrence’ became major areas of research. The former was motivated by the need to grasp escalation risks in complex operating environments whereas the latter was a reaction to adversaries finding ways to realise their political goals despite successful US deterrence of major war.

The Biden administration has continued this problematic tradition of adjectival deterrence by coining the phrase integrated deterrence. It is a neologism that occupies a central place in the Biden administration’s defence strategy, yet – like the buzzwords that preceded it – it has little to do with deterrence and lacks stable meaning.

What integrated deterrence is (and is not)

On 18 March 2022, weeks after Russia’s invasion of Ukraine, Deputy Under Secretary of Defense for Policy Sasha Baker testified before Congress about integrated deterrence. When pressed for the Biden administration’s theory of integrated deterrence and how it related to Russia, she said integrated deterrence was happening in real time – amidst Russia’s ongoing invasion of Ukraine – and could say little else.8

That answer makes no sense if integrated deterrence is, as the phrase implies, about deterrence. Describing integrated deterrence as something that takes place after a great power conflict has begun – taking the form of military assistance as an adjunct to a strategy that relies primarily on economic sanctions – necessarily indicates that the phrase is not principally about preventing war or territorial aggression. In context, integrated deterrence is best understood as referring to escalation avoidance in contingency planning for limited war. It uses the idiom of deterrence to express an assumption that the US will be able to engage in limited combat operations or domain-agnostic coercion (military, economic, diplomatic) in ways that avoid escalation to nuclear war.

But the phrase ‘integrated deterrence’ does not indicate how policies can be implemented or operations conducted without nuclear escalation. Integrated deterrence, in other words, does not embody a theory of deterrence, and it is not an operational concept. Secretary of Defense Lloyd Austin remarked that

Integrated deterrence is about using existing capabilities and building new ones and deploying them all in new and networked

8 Rep Gallagher Press Office (@RepGallagher), ‘Rep Gallagher today pressed DoD officials on the concept of integrated deterrence. “What you’re effectively saying is your entire theory of deterrence requires a country to get invaded and pillaged to galvanize the West into action” [with embedded video]’, Twitter, 18 March 2022 7.36 am. https://twitter.com/RepGallagher/status/1504557417195085827
ways – all tailored to a region’s security landscape, and in growing partnership with our friends.9

But this is a description of generic whole-of-government policy action, tailored to specific contexts. Sensible but vacuous. Nowhere in Austin’s description are concepts we associate with deterrence – the manipulation of risk, threats that aim to prevent something from happening, the application of force to achieve defined goals, or logics of punishment or denial. If deterrence plays a role in integrated deterrence, its reasoning lay elsewhere, not in the phrase itself.

The trouble with this is that the United States does not have a theory of coercion to deal with great power revanchism and the ‘integrated deterrence’ neologism papers over that absence. US attempts to formulate an answer to China’s anti-access/area denial (A2/AD) operational concept – first Air-Sea Battle, then the ‘third offset strategy’ and ‘JAM-GC’10 – became reasons to invest in cutting-edge weapons technologies but never generated warfighting concepts beyond pure overmatch targeting critical infrastructure on the Chinese mainland. Nobody has been able to tell a plausible story how the United States could strike high-value counterforce targets on the Chinese mainland without escalating to nuclear war.

To the extent that integrated deterrence prioritises escalation control, it recognises – but does not resolve or even begin to orchestrate a solution to – this China-warfighting challenge. The United States may well have a will to resist great power revanchism. But it does not have a theory for how to prevent it or how to prevail in a confrontation against it. It only has an assumption that US forces can inflict massive damage on a nuclear great power and things will not escalate. Like other forms of adjectival deterrence that preceded it, integrated deterrence is indexed against a real problem – nuclear escalation amid great power revanchism – but that problem is not inherently one of deterrence (and if it were it presents no realistic solution at any rate).

Beyond escalation control, integrated deterrence also signals greater US risk aversion in other, less direct ways. One is that the Biden administration wants to break down barriers between nuclear and conventional war planning. The 2022 National Defense Strategy (NDS) took account of and orchestrated the traditionally distinct Nuclear Posture Review and Missile Defense Review. Integrated deterrence was a bureaucratic rationale for explicitly subordinating

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10 JAM-GC refers to the 2016 joint operational concept Joint Concept for Access and Maneuver in the Global Commons.

The second indirect sign of more restrained ambition in integrated deterrence is how it gestures towards a greater willingness to cultivate and count on ally contributions to military contingencies and force planning. This too is unprecedented, at least since the end of the Cold War. The Trump era ‘great power competition’ force planning construct, and the two-war construct that lasted for a generation before that, both assumed that the United States must be able to fight and win wars independently.\footnote{Jim Mitre, ‘A eulogy for the two-war construct’, Washington Quarterly, 2018, 41(4):7–30. https://doi.org/10.1080/0163680X.2018.1557479} US force planning – contra the actual American way of war – has been premised on expectations of mostly unilateral war-winning. Allies have historically featured in force planning as sources of political legitimacy, or providers of territorial access, but their expected battlefield contributions were typically treated as marginal.\footnote{For the history of post-Cold War force planning, see Eric V Larson, Force Planning Scenarios: 1945–2016, RAND Corporation, Santa Monica CA, 2019. https://www.rand.org/pubs/research_reports/RR2173z1.html} Integrated deterrence conveys a more holistic, and potentially realistic, view of military contingencies as not just all-domain but all-coalition – it signals a new US willingness to think about ally force posture and ally capabilities as part of the force that goes to war in extremis.

The third sign of restrained ambition and risk aversion in integrated deterrence is in conceiving of the military’s role as a support function to non-military missions – specifically economic statecraft. Baker’s testimony about US involvement in the Russia-Ukraine war illustrates this point. The United States has provided billions of dollars’ worth of lethal and non-lethal military assistance to Ukraine, but the principal front in America’s anti-Russia effort has been a global economic sanctions regime. The military assistance aims to help Ukraine defend its territory, but the economic strategy aims to convince Russia to abandon its effort to invade and occupy Ukraine entirely.

In this way, integrated deterrence conceives of military missions as a line of effort that supports statecraft, not a central feature of it. This reimagines military
contingencies in a way that could make the US operational objective nothing more than a battlefield stalemate. But a military stalemate against a nuclear great power is arguably a major victory despite indicating more restrained ambition if the coercive work of the strategy is happening in non-military domains.

**Australia’s strategic choices**

For Australia, grand implications follow from the evolving character of US thinking about not just deterrence but the role of the military and allies in US statecraft. The real strategic choice facing Australia is not about which great power it should align with – that debate has crested and is at any rate somewhat philosophical. For Australian defence, the question is how it ought to interpret and respond to both the military aspect of the China challenge and America’s growing external unreliability and internal political volatility.

On China, the final die has not been cast, but the 2020 Defence Strategic Update (DSU) indicates that Australian officials believe the government needs to be able to deter China militarily. Andrew Shearer, director-general of Australia’s Office of National Intelligence, reasoned that:

> As China’s capability advances, we need to have submarines capable of meeting it. We need to be able to operate without the risk of easy detection by the Chinese…the security circumstances have changed dramatically and the only way we can remain strategically relevant in highly contested circumstances is if we have the ability to launch cruise missiles over long distances.

This judgement puts capability before concept – there is no theory in it regarding how submarines or missiles can be positioned or employed to realistically deter Chinese forces. More importantly, it is both costly and risky to elevate the China-deterrence contingency to the level of a mission that should drive defence strategy and force structure decisions. Deterrence is notoriously difficult to measure. The balance of forces between Canberra and Beijing strongly favours the latter and will not be remedied by Australia’s post-DSU decisions to invest in missiles and submarines. And China has its own secure second-strike


nuclear arsenal while Australia must rely on America’s nuclear umbrella. It may well be the case that Australia one day finds itself in a situation where – despite its military inferiority – it needs to make deterrent threats against China that hold Chinese targets at risk of conventional strike. But that does not automatically mean Australia requires the slate of post-DSU investments, nor does it mean that such a scenario is likely, winnable or worth making a priority in defence planning.

But here is the real tension. To the extent that Australian national security is preoccupied with the conventional deterrence of a nuclear-armed adversary that can out-escalate it, Australia’s ambition and risk appetite are mismatched with what integrated deterrence tells us about America’s disposition, which is entering a post-primacy phase that is currently more risk averse and enduringly more desirous to burden shift to allies. This gap must be lived with or remedied, but in either case, it will not close simply because of changing US presidents.

The phrase ‘integrated deterrence’ is unlikely to outlive the Biden administration, but much of what it signals are newly entrenched features of US foreign policy – wielding non-military tools of coercion, breaking down silos between nuclear and conventional planning, and shifting military requirements to America’s frontline friends. These features of integrated deterrence are likely to remain part of US strategy.

And yet, the core meaning of integrated deterrence – prioritisation of escalation control – is highly subject to unpredictable change. A post-Biden president could prove more risk averse, or decidedly more risk prone (for example, a Trump-like avatar). US nuclear strategists embody wide-ranging theories of nuclear stability, they do not strictly fall along partisan lines, and yet they are embedded within America’s electoral system, which means risk volatility is the only certainty. This is a planning nightmare for allies reliant on the US nuclear umbrella. The United States has become far less strategically reliable, and its strategic competence far shakier, than Australian national security has been willing to acknowledge.

What, then, is Australia to do? Facing a strategy-force mismatch, a military must adjust the strategy to fit the available force; adjust the force to meet the requirements of the strategy; or accept the risks built into the misalignment between force and strategy. This is roughly the choice structure facing Australia with regard to its conventional deterrence mission and its historical US ally. Australia can invest in building robust theories of independent conventional deterrence. It can divest from the anti-China conventional deterrence mission altogether because it is too risky, costly or simply unwinnable. Or it can ‘accept

17 Jackson, ‘Reducing or exploiting risk?’.
the misalignment’, striking up a force planning division of labour that deepens Australian dependence on the United States while expanding its role as a frontline shock absorber in great power rivalry.

**Australian theories of deterrence**

Through scenario-based analysis, wargaming and an intense effort to build contextually relevant coercion theory, it might be possible for Australia to develop concepts for plausibly deterring Chinese forces using only conventional military capabilities. This is the path that post-DSU investments implicitly sign Canberra up for. To fulfil that self-made expectation Australia would need to identify discrete missions and scenarios in which it expects to engage in deterrence or compellence, and then determine the capability requirements that make it possible to satisfy those missions and scenarios.

As ambitious and risky as it can be for a non-nuclear middle power to try and deter a nuclear great power, Australia’s success or failure is likely to hinge substantially on the realism of the operational objectives it sets for itself and the degree to which it is in the role of local defender versus power projector in a given situation. The balance of resolve tends to favour those with defensive missions, and power projection scenarios require much greater capability, mass, and logistical support than scenarios where you project force from fixed positions or defend a territory you already control.¹⁸

The risks in making this choice involve not only failing to discover the operational concept that could plausibly bolster conventional deterrence against a nuclear-armed great power, but also planning against the wrong scenarios or sets of assumptions about China. For example, are there any scenarios in which holding the Chinese mainland at risk of conventional strike with submarines actually puts fear into the People’s Liberation Army (PLA) sufficient to deter it from some unwanted action? It seems unlikely, but if Australian strategists discover one, are they then abandoning realism in favour of an overly optimistic outlier case if they decide to plan against it? Does it make sense to shape major strategic doctrine or capabilities on the basis of one scenario out of 100 in which cruise missiles or submarines give Australia a marginal upper hand? What is more, Australia’s post-DSU investments in missiles and submarines seem to be based

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on the unsupportable assumption that Chinese capabilities will not advance substantially over the next two decades. 19

Reframing the China challenge

The difficulty of finding an Australian-deterrence answer to the ‘China problem’ is immense. It might literally be an impossible mission. Acknowledging as much increases the appeal of an alternative strategic choice that may be advisable anyway – abandoning conventional deterrence as a mission in favour of reframing the China defence challenge as something executable at an acceptable risk. Doing so does not preclude Australia from engaging in conventional deterrence attempts should it need to do so; it merely avers making the fuzzy deterrence gambit a basis for force planning.

The most sensible way to reframe the China challenge away from deterrence or compellence is to think in terms of missions and the capability and posture requirements that logically follow from the operational objectives those missions have. This eliminates the murky, high-risk intermediate step between action and objective that relies on influencing an enemy’s decision-making calculus. Australia could set any number of plausible missions for its defence force – for example, cutting off a PLA maritime resupply line to a Pacific Island, or conducting commercial shipping escorts, participating in multilateral blockades, maintaining combat air patrols close to Australian shores, or fending off the first wave of an amphibious assault. These missions have measurable operational objectives and are achievable through an adequate concentration of preplanned force, not a wager on something over which Australia has little control.

Of course, the risk of this strategic choice is that Australia one day finds itself in the position of needing to deter China while lacking either the capabilities or operational concepts to do so. This is why it is useful to consider whether and how to reframe the China challenge in the context of the first strategic choice – armed with nuclear-powered submarines or a larger missile inventory, are there scenarios or operational concepts that make it plausible for Australia to deter China? If not, then the first strategic choice is a path to nowhere, and recalibrating the ambition of the China-related defence challenge to focus on the use of force within missions (rather than coercion) becomes intuitively necessary.

19 Because if the capabilities of the People’s Liberation Army (PLA) do advance substantially then the projected acquisition of Australian missiles and submarines would not narrow a gap with the PLA but rather lead to an arms race the PLA from a perpetually inferior posture…which would be very stupid.
Doubling down on strategic dependency

The final strategic choice Australia can make is to accept the risks of relying on the United States in spite of both the emerging gap in US and Australian strategic thought and heightened US volatility. On some level, the drift of Australia’s status quo trajectory already does this – what is Australia-United Kingdom-United States (AUKUS) if not an arms deal that envelops Australia further within an American orbit? But if Australia has the courage of its strategic conviction, it could be making this choice consciously. Logic dictates that if Australia is going to count on the United States for its security, then it should do what it can to reduce American risk volatility and increase US staying power in the region. Reducing your ally’s volatility may seem a task beyond the writ of the Australian Defence Force (ADF), but in fact it is in the space of force planning that Australia could partly unify its forces with America’s, thereby creating a degree of mutual military dependency rather than one-way dependency.

Since integrated deterrence signals a willingness to burden shift and account for ally contributions in force planning, there is a window of opportunity to establish a force planning division of labour between US and Australian forces to encourage a US ‘forward balancing’ strategy. Australia can provide for US contingencies much needed capacity (increasing the aggregate inventory of a given weapons category or troop end-strength), which would allow the United States to specialise in primarily high-end capability rather than mass. Australia can also provide the advantage of time – its unique forward positioning in the Pacific could allow the ADF to respond to Asia–Pacific contingencies quicker than the US TPFD (time-phased force deployment) would allow. Because of this geographically based time advantage, Australia could also tailor its force structure to absorb the initial contact phase of a military campaign, before the United States can execute a TPFD. So a division of labour between the United States and Australia could take the form of specific missions, specific phases of a five-phase campaign, or specific capability versus capacity complements. Whatever form a force planning division of labour takes, it anchors the United States further in the region and makes it much harder for the United States to plan for military operations except with its ally.

The risks of doubling down on the United States for security are obvious – heightened risks of both US abandonment and entrapment. If Australian forces literally depend on US partnership to satisfy mission requirements then Australia lacks control over its destiny. It could be prevented from pursuing operations it

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believes are in its interests if the United States either abandons it or – as happened with South Korea during two crises in 2010 – uses alliance dependencies to restrain the junior partner in the relationship. Alternatively, if a future Washington takes a hard turn towards risk acceptance or incompetence – thereby leading to a miscalculation in a coercive competition with China – Australia will be too entangled with the United States to distance itself from the consequences of bad judgement.

Conclusion

In sum, there is no Goldilocks solution for Australia, only trade-offs. Weighing them accurately means being clear-eyed about Australia’s strategic problems and constraints. The Biden administration’s embrace of integrated deterrence papers over a lack of a viable theory for either how to deal with Chinese warfighting scenarios or prevent them from happening in the first place. It also heralds a mismatch in US and Australian strategic thought that the latter should face squarely, because whether Australian national security elites appreciate America’s newfound concern with escalation control, it will not last. And if America swings towards a posture of brinkmanship and nuclear superiority, that too will not last. The risk aversion of integrated deterrence is a sign of volatility and questionable competence that is likely to be a mainstay in US strategic culture for the foreseeable future. Australia must plan accordingly.

Labelled as ‘game changers’ and ‘unstoppable’,1 hypersonic missile capabilities are one of the latest ‘emerging technologies’ currently hyped by technon-enthusiasts claiming hypersonics will unleash a revolutionary transformation in future warfare. The most avid countries, and the first to develop this technology have been the major military powers (the United States, Russia, China, and India) with others (such as Japan, France, Germany, and both North and South Korea) following in their footsteps.² Yet, a number of analysts have begun to question the veracity of some of the claims made by proponents of hypersonic missile technology,³ and others have expressed concern that a hypersonic ‘arms race’ is getting underway.⁴ So why is it that at this moment Australia has announced its intention to join the fray?

Australia’s Defence Science and Technology Group (DSTG) has been collaborating with the US Air Force’s Research Laboratory on the Hypersonic

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International Flight Research Experimentation (HIFiRE) program for more than 15 years. However, it is the more recent Australia–United Kingdom–United States (AUKUS) pact announcement in April 2022 that has garnered most attention. In their statement, President Joe Biden, UK Prime Minister Boris Johnston, and Australian Prime Minister Scott Morrison, committed to new trilateral cooperation aimed at further developing both hypersonic missiles and defences against such missiles. Public commentary on the announcement has carried varied claims from these missiles simply being part of Australia’s ability to maintain a “competitive edge” to hyperbolic assertions that hypersonics are “just the start if Australia is to secure its sovereignty.”

In this commentary, I take a step back from such dramatic predictions and sales pitches to examine three crucial, yet thus far underappreciated, considerations relevant to the decision for Australia to acquire a hypersonic missile capability. First, I discuss the capability itself and the kind of military missions it may be suited to. Second, I place the development of the current generation of hypersonic missiles in the wider global context of the important links between what have been labelled ‘strategic non-nuclear weapons’ and the global nuclear balance. Finally, I look at the different options open to Australia in this area taking account of not only the opportunities but also the costs. I conclude with a reflection on the importance of having an informed, balanced and open-minded debate about Australia’s choices in relation to hypersonic missiles. In particular, I emphasise

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6 The White House Briefing Room, [AUKUS leaders’ level statement](https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/aukus-leaders-level-statement/), The White House website, 5 April 2022. [https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/aukus-leaders-level-statement/](https://www.whitehouse.gov/briefing-room/statements-releases/2022/04/05/aukus-leaders-level-statement/)


using a realistic mission for which an Australian capability would be well suited as the primary driver of policy decisions in this area.

**The capability and the mission**

Missiles that can travel at hypersonic speed (Mach 5 or faster) are not new. For example, intercontinental ballistic missiles (ICBMs) that travel at such speeds have been part of the global security landscape for decades. Despite the moniker of ‘hypersonic missiles’, the current interest in this weapons technology is not driven solely by the perceived benefits of fast delivery vehicles alone. Instead, it is the crucial combination of speed and manoeuvrability. An ICBM may travel at hypersonic speed, but by definition, it must follow a ballistic – and therefore predictable – trajectory.  

While existing ICBM platforms provide for hypersonic speed, and existing cruise missile platforms can travel along a manoeuvrable flight path, the missiles that today fall under the category of ‘hypersonics’ promise to deliver the combination of both characteristics. Those who focus only on the speed of such weapons fundamentally misunderstand the inherent trade-off between these two characteristics: manoeuvrability comes at the expense of speed and vice versa. Early programs focused on land (including silo) and air-based missiles, but both submarine-launched and even space-based hypersonic programs are now in the works. The three design types currently on offer are: aero-ballistic (that is dropped from an aircraft, accelerated to hypersonic speed using a rocket and then following an unpowered ballistic trajectory); boost-glide vehicles (boosted on a rocket to a high altitude and then released to glide down on a manoeuvrable trajectory towards a target); and hypersonic cruise missiles (boosted by a much smaller rocket to hypersonic speed and then using an air-breathing engine to travel at speed).

Perhaps the most important, but least understood, aspect of the current discourse on hypersonic missiles is that, at present, these weapons really only have one mission for which they are uniquely suited: to strike targets that would

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10 While an ICBM can be fitted with a manoeuvrable re-entry vehicle (MARV) the ability to manoeuvre the warhead’s flight path is limited to the final, or “terminal”, phase of re-entry into the atmosphere only.
otherwise be defended by a missile defence system.\textsuperscript{11} The specific combination of speed and manoeuvrability – even with the inherent trade-offs between these two characteristics – provide a unique capability for countering missile defence systems which rely on the ability to detect and then track a missile through flight and make calculations about its likely trajectory. Speed and manoeuvrability make both tasks much harder.

While overcoming land and sea-based missile defence systems is the primary mission for hypersonic missile programs, a secondary mission (less uniquely tied to this capability) is the potential for striking either road or rail-mobile missile targets on land. In essence, this is about matching the mobility of the target with the mobility of the incoming missile. However, this secondary potential mission is a very long way off based on current technologies and would be hugely reliant on further breakthroughs in remote-sensing technologies.\textsuperscript{12} Therefore, it only makes sense for Australia (or any other nation) to have an informed and serious discussion about acquiring hypersonics as a prospective ‘capability’ if a likely adversary with an effective missile defence system, or mobile missiles that Australia has a clear interest in being able to target, can be identified.

In the future, for smaller, particularly non-nuclear armed, states like Australia, it is possible that conventionally armed hypersonic missiles provide an avenue to deter missile attacks against forward-deployed forces by larger states with missile defence capabilities. The idea here would be that Australia could deter a conventional first strike by ensuring that an adversary would need to expect a retaliatory strike from Australia that it could not defend against. In the event of deterrence failure, hypersonic missiles may still give Australia the ability to respond to such attacks effectively and thereby potentially deter further attacks. Of course, this is based on the, at least debatable, assumption that hypersonic missiles are actually as effective in overcoming defences as their advocates claim.\textsuperscript{13}

\textsuperscript{11} Of course there are other ways to overwhelm or compromise a missile defence system, including attacks against the radar and satellite networks and command-and-control systems that the defensive system relies on, as well as more traditional approaches such as the use of decoys on missiles fitted with multiple warheads or simply overwhelming the system with large numbers of incoming missiles. See, Richard L Garwin, ‘Holes in the missile shield’, Scientific American, 2004, 291(5):70–79; Matt Korda and Hans M Kristensen, ‘US ballistic missile defenses, 2019’, Bulletin of the Atomic Scientists, 2019, 75(6):295–306; for the best declassified summary of this see, JASON, MDA Discrimination, JSR-10-620, Unclassified Summary, The MITRE Corporation, McLean Va, 3 August 2010. \url{https://irp.fas.org/agency/dod/jason} or \url{https://fas.org/irp/agency/dod/jason/mda-dis.pdf}

\textsuperscript{12} For an early, and extremely optimistic, view from the US Department of Defense on the possibilities of this mission, see, Jason Sherman, ‘DOD readying hypersonic weapon with new feature: ability to strike moving targets’, Inside Defense, 4 May 2022, \url{https://insidedefense.com/daily-news/dod-readying-hypersonic-weapon-new-feature-ability-strike-moving-targets}.

At the current time, and for the foreseeable future, the only two states in the world who field a missile defence system that comes even close to working effectively are the United States and Israel. In terms of the second potential mission for hypersonics, China currently fields mobile missiles which, in principle, could be targeted by a forward-deployed (or long-range land-based) Australian missile. This latter mission raises the important question of whether Australia has an interest in making a nuclear-armed great power in our own region, with an already relatively vulnerable nuclear arsenal, even more vulnerable by targeting its mobile missiles. There is nothing about this capability that ensures its use would only be effective against conventionally armed rather than nuclear mobile missiles. It is to this wider context, including the inescapable links between strategic non-nuclear capabilities (a category that includes hypersonic missiles) and nuclear capabilities, that I will now turn.

**Hypersonic missiles and strategic stability in the third nuclear age**

The major players that have emerged in this area of techno-military development are those with established, or vying for, great power status: the United States, Russia, China and India. High-end military technology has long been seen as a marker of great power status and hypersonics have become one of the disruptive military weapons system *de jour* for the current set of real and aspirant great powers.

But the current enthusiasm for hypersonic missile systems is also both a symptom, and one of the key drivers of, contemporary great power arms racing. This return to arms racing at the strategic level is playing out in a way that links conventional and nuclear capabilities in dangerous ways. In particular, many are now focusing on conventional forces, increasingly labelled as ‘strategic non-nuclear weapons’, which when used in combination, can compromise an adversary’s nuclear forces. These include hypersonic and other precision-strike conventional missiles; missile defence systems; anti-satellite and anti-submarine warfare capabilities; and supporting systems and platforms, such as advanced remote sensing and cyber and artificial intelligence platforms. These capabilities

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16 Benjamin Zala, ‘How the next nuclear arms race will be different from the last one’, *Bulletin of the Atomic Scientists*, 2019, 75(1): 36–43.
are all unencumbered by the political and moral restraints associated with the nuclear taboo, making them seem more ‘usable’ in a crisis.

None of these capabilities can threaten even a small nuclear arsenal today. But rapid advances in the technologies in recent years and the prospect of their combined use has made all nuclear-armed states less confident than they once were in the survivability of their forces. In the future, for example, a missile defence system may only need to defend against a retaliatory force that has been greatly depleted and compromised in a first strike. Former US official and deputy secretary general of NATO, Rose Gottemoeller, depicts these technologies as having ‘a profound impact on second-strike retaliatory forces, which nuclear weapons states have long taken for granted. As the vulnerability of such forces comes into view, the nuclear states will have to face the notion that they may be unable to respond in the dreadful event that a nuclear first strike on them occurs’.17

The implications of this are profound for the global nuclear order, and hypersonic missiles are one of the key technologies driving these changes.18 Security scholars are increasingly referring to the current moment in history as the outset of a third nuclear age.19 A first nuclear age is said to have spanned the years between 1945 and the end of the Cold War and was dominated by concerns over the nuclear arms race and strategic stability between the two superpowers. A second nuclear age is said to have ensued from 1989–91 to the present time when the focus, particularly in the West, turned more to issues of nuclear nonproliferation, terrorism and securing nuclear materials.

According to one account, we are set to move from a global nuclear order based on the assumption that developments in nuclear weapons are the primary driver of stability and instability to one in which non-nuclear capabilities play an equally, if not more, important role. Thus, the defining feature of the third nuclear age will be that ‘nuclear geopolitics, risks, crises, deployments, postures, balances,
arms control, and nonproliferation will all be shaped as much by developments in SNNW [strategic non-nuclear weapons] capabilities as by nuclear weapons’.  

This capability must be viewed against the backdrop of a shift to a new nuclear era in which SNNWs, such as conventionally armed hypersonic missiles, play a pivotal role on issues of nuclear stability. One of the pillars of the US strategic non-nuclear arsenal is its ‘conventional prompt global strike’ program, which has included hypersonic missiles research and development since the early 2000s.  

An Australian hypersonics capability will not sit separately from these wider strategic developments, not least due to Australia’s close military relationship (including integration into the US missile defence system via the joint facilities) with the United States. Potential missions for an Australian hypersonic missile capability, such as hitting Chinese mobile missiles, or overcoming a Chinese missile defence system geared towards defending against a counterforce first strike, raise important questions about Australia’s role in the third nuclear age.

Maintaining deterrence stability under conditions of combined strategic non-nuclear and nuclear weapons arms racing is likely to be extremely challenging. Military technologies that place a premium on speed can further exacerbate these challenges. Put simply, the benefits of hypersonic missiles – speed and manoeuvrability – can undermine deterrence stability by incentivising nuclear first use.

Much of our thinking on deterrence, in general, and questions of stability and instability in deterrence comes from the set of strategic thinkers who worked in the early stages of the first nuclear age. One of these was Thomas Schelling who wrote in his classic book from 1966, *Arms & Influence*, about what he called ‘the mischievous influence of haste’. He thought of the influence of haste as having various elements, discussing factors such as fast mobilisation times and the readiness of deployed forces. But he also included in this the ability to quickly launch missiles that could fly at great speeds. Schelling wrote that:

> The premium on haste – the advantage, in case of war, in being the one to launch it or in being a quick second in retaliation if the other side gets off the first blow – is undoubtedly the greatest piece

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20 Futter and Zala, ‘Strategic non-nuclear weapons and the onset of a third nuclear age’, p 258.
21 Sayler, *Hypersonic weapons*.
of mischief that can be introduced into military forces, and the greatest source of danger that peace will explode into all-out war.\textsuperscript{25}

The problem, Schelling reminds us, is that speed reduces the time for sending signals, interpreting signals and making decisions based on those interpretations. Both sides in any deterrence relationship are not only thinking about their own forces, but also trying to make a judgement about what they think the other side is contemplating. Military technologies like hypersonic missiles increase the pressures on both sides by narrowing the perceived range of choices. This is what drives the logic of ‘use it or lose it’ situations. If a state perceives its nuclear forces are vulnerable to attack then waiting to assess and carefully deliberate over the signals being sent by the other side can be an extremely dangerous choice.

Navigating these pressures in a deterrence relationship is a complex task. Robert Jervis observes that while a state attempting to deter an adversary realises that ‘its adversary has strong incentives to take action – otherwise deterrence would not be necessary – it usually thinks that the latter has a wide range of choice’.\textsuperscript{26} Both sides are forces into a guessing game over each other’s threat perceptions and intentions. Haste exacerbates the difficulty of this by reducing the time for signalling. It is for this reason that for Schelling, ‘Military technology that puts a premium on haste in a crisis puts a premium on war itself. A vulnerable military force is one that cannot wait, especially if it faces an enemy force that is vulnerable if the enemy waits.’\textsuperscript{27}

Not only does the speed of hypersonic missiles increase the pressure on a nuclear-armed decision-maker but also, as James Johnson argues: ‘The manoeuvrability of hypersonic weapons may compound these dynamics, adding destination ambiguity to the destabilising mix.’\textsuperscript{28} In the context of vulnerable dual-use command-and-control systems, ‘Adversaries unable to determine the intended path or ultimate target of a “bolt from the blue” hypersonic strike will likely assume the worst … escalating a situation that may be intended only to signal intent.’\textsuperscript{29}

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\item \textsuperscript{25} Schelling, \textit{Arms and Influence}, p 227.
\item \textsuperscript{27} Schelling, \textit{Arms and Influence}, p 225.
\item \textsuperscript{28} James Johnson, \textit{Artificial Intelligence and the Future of Warfare: The USA, China, and Strategic Stability}, Manchester University Press, Manchester, 2021, p 135. Emphasis in original.
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The implications of a shift to a third nuclear age mean that assumptions about the inherent benefits of faster missile programs that give one’s adversaries less warning time in the event of an attack, may not hold up when stress-tested under conditions of a nuclear crisis. With this as the context to any Australian decision on hypersonics, I now turn to the different options that Canberra faces in this area.

**Options for Australia**

Once Australian policymakers have undertaken an assessment of the capabilities that a hypersonic missile program actually offers (cognisant of both the trade-off between speed and manoeuvrability and the potential risks associated with both characteristics for crisis stability discussed above), the capability must be matched to a specific and, given the likely price tag, pressing, mission. If a specific future mission can be identified, Canberra essentially faces four options on an Australian hypersonic weapons capability.

The first is to forego such a capability in the first place. It must be possible to ignore the technological and political hype, weigh up the costs and benefits and find that at the current time, the former outweigh the latter. If not, a significant bite will be taken out of Australia’s finite defence budget due to nothing more than a desire to equip the Australian Defence Force (ADF) with a capability it does not actually need and leave less for the capabilities that will actually make Australia safer. Technological momentum must not carry the decision on its own.30

If indeed a mission is identified, and the benefits are seen to outweigh the costs, then the second option ought to be purchasing an off-the-shelf missile platform from an outside seller. Given their advances in this area (despite the greatly overblown sense within the United States of a new ‘hypersonic missile gap’ that is reminiscent of the late 1950s and early 1960s missile gap debate in almost all ways), the United States is the most obvious seller.31 Given military acquisition has long been a central aspect of the US–Australia alliance, this should be a relatively easy path to navigate. It would, however, mean having to purchasing a platform designed for American rather than Australian capability needs (although this is not necessarily a problem per se).

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A third option is instead to look to the opening provided by the AUKUS announcement in April 2022 on hypersonics and further collaborate on research and development in this area with a view to Australia fielding its own missile platform. As mentioned above, US–Australian collaboration in this area is already well established. It would therefore be a matter of greatly scaling up this activity. This option faces the greatest barriers as Australia simply does not have a homegrown missile production capacity. Any collaboration is likely to be highly reliant on the other two partners, particularly the United States. While it may meet the political criteria of making the AUKUS pact look like a substantive and productive arrangement, as described above, it may well be more efficient and cheaper to simply purchase an already flight-tested and proven system from the United States directly.

Given that overcoming missile defences is the main mission that hypersonic missiles provide a useful capability for and few, if any, of Australia’s likely adversaries in the coming decades are expected to field effective missile defences in any great number, a fourth option is to focus our efforts in the defensive realm. As the AUKUS announcement committed to, collaboration on both hypersonics and counter-hypersonics research, there may be an opportunity to focus Australian acquisition on the latter. If the only mission that a hypersonics capability provides for is a countermeasure for missile defences and the world’s most sophisticated missile defence system is fielded by our ally, then finding a way to neutralise, or at least lessen, their effectiveness may be a better use of Australian money and research efforts. In other words, rather than compounding concerns over a high-tech arms build-up in our region by adding our own efforts, Australia could opt to focus on ways of making this arms build-up less fruitful for its key protagonists. The US Missile Defense Agency and US think tanks, such as the Centre for Strategic and International Studies, have active research programs on hypersonic missile defences. It may be that the best use of the Australian research so far, for example, into scramjet technologies, would be to collaborate with counterparts in the United States on ways of countering such missiles.

Ultimately, no matter which of these four options is chosen, there is no escaping the background context of the dynamics of a third nuclear age, where strategic non-nuclear capabilities such as hypersonic missiles are entwined with nuclear balances. The stakes are high for a state like Australia, closely allied as it is to

the world and Asian region’s most militarily dominant actor, as Asia slips further towards straightforward arms racing dynamics. It is therefore critical that any Australian decisions on a hypersonic missile capability are preceded by a clear, compelling, and public statement on the mission Canberra believes the ADF will perform with these missiles.33

**Conclusion**

The problem of having no coherent, and clearly articulated, mission for this capability is not only one for the Australian taxpayer. The rush to endow Australia with a conventionally armed hypersonic missile capability without first being able to clearly signal to others how such a capability will help Australia to defend itself exacerbates the security dilemma dynamics inherent in almost all military modernisation projects. As the eminent historian Charles Maier has put it, in the context of drawing lessons from the lead-up to the First World War for today’s security environment, ‘what one side sees as a necessary upgrading of forces (even if not an expansion) must appear to the other as significant danger. It often raises the threat of a decisive defeat at the opening of a war, thus serving as an added goad to pre-emption’.34

Ironically, slowing the pace of planning for an Australian hypersonic missile capability is now what is needed. Canberra needs to consider the options carefully. It must ask serious questions about the much-vaunted benefits to the ADF of this capability and weigh what benefits there are against the costs (both economic and strategic). This does not mean neglecting the development of a hypersonics capability if a plausible case can be made that the benefits really do outweigh the costs. But it does mean, unlike the vast majority of breathless commentary and public lobbying on the topic so far, treating the issue with the seriousness that it deserves.

If indeed Australian military or political leaders come to the conclusion that, given the current and projected military balance in Asia, a hypersonic missile platform is not necessary for the ADF, then articulating this in the current climate will not be easy. Today, anything that is seen as slowing China’s move towards levelling the military imbalance (towards the United States) in Asia is treated as inherently beneficial to Australia’s security. While many speak of welcoming a balance of power in Asia, few appear willing to consider that this requires the United States and its allies avoid the temptation of matching Beijing’s military

33 Ryan, ‘Hypersonic missiles are just the start if Australia is to secure its sovereignty’.
build-up weapon for weapon, given China’s weaker starting point. But if Australia’s military and political leaders are serious about ensuring Australia’s future, then reaching the conclusion that Australia does not require a hypersonic missile capability must be a possibility regardless of the political climate, such are the demands of genuine political and military leadership. As Maier reminds us, ‘it takes courageous leadership to persuade any country’s hawks that military equilibrium is possible’.36

At the very least, the case for an Australian hypersonic missile capability (that weighs the benefits against the costs) needs to be made publicly. Doing so would not only go some way towards restoring faith in Australian military and defence strategy within Australia’s borders, but also be crucial to the signals Canberra sends to the region. Clear and consistent signalling, while enormously difficult, is one of the few levers that decision-makers have to pull when navigating the security dilemma. It requires a modicum of self-awareness sensitive to the fact that while we nearly always think of our own military upgrades as being motivated by benign intent others may not have the luxury of making this assumption.38 Getting this right will be crucial if Australia is interested in avoiding its own region descending further into a spiral of arms racing, with hypersonics being only the tip of the iceberg.

36 Maier, ‘Thucydides, alliance politics, and great power conflict’, p 94.
Introduction

After US Speaker of the House Nancy Pelosi’s visit to Taiwan on 3 August the People’s Liberation Army (PLA) Eastern Theater Command announced that it would be undertaking joint combat training exercises in the northern, south-western and south-eastern waters and airspace off Taiwan Island. PLA Navy (PLAN), PLA Rocket Force (PLARF) and PLA Strategic Support Force (PLASSF) elements were focused on ‘joint blockade, sea target assault, strike[s] on ground targets, and airspace control operation’. These exercises took place across the ‘median line’ of the Taiwan Strait. They violated Taiwan’s territorial waters in the northern and southern zones and included rolling violations of Taiwan’s air defence identification zone by Chinese military aircraft. Long-range rockets and conventional ballistic missiles were launched from ‘four main regions within China into multiple exercise zones to the north, east, and south of Taiwan’. The announcement came after Beijing had imposed a range of economic measures, including the suspension of imports of Taiwanese fruit and seafood earlier the same day.

1 Huaxia (ed), ‘PLA Eastern Theater Command conducts joint exercises around Taiwan Island’, Xinhua, 4 August 2022 9.04 am, https://english.news.cn/20220804/9a035081c17a4bcc99e62ae341db4fb6/c.html
3 Reuters, ‘Sanctions China has imposed on Taiwan over Pelosi visit’, Reuters, 3 August 2022 3.28 pm GMT+10, https://www.reuters.com/world/asia-pacific/economic-sanctions-china-has-imposed-taiwan-over-pelosi-visit-2022-08-03/
This makes it crucial to examine and understand how China conceives of and practices forms of coercion like deterrence. Based on a discussion of authoritative and semi-authoritative Chinese sources on PLA strategy and doctrine, this paper makes three arguments:

1. China conceives of and practices deterrence in a distinct manner that combines dissuasive and compellent forms of coercion.
2. Deterrence, as conceived by China, is not an end point or goal, as it is sometimes framed in the West, but is an explicit instrument for the achievement of politico-military objectives.
3. PLA doctrine may envisage a sequential application of deterrent and compellent postures across a peacetime–crisis–war spectrum.

The paper then concludes with a discussion of the potential implications of these arguments for Chinese behaviour in a Taiwan crisis scenario.

**The ‘power to hurt’: deterrence and compellence in international politics**

China’s response to Pelosi’s visit provides a pointed reminder that international politics often takes place in a grey region involving no-peace and no-war wherein the threat of violence – more than its mere application – is the critical variable for an understanding of interstate relations and crises.

Such latent violence (the ‘power to hurt’, as Thomas Schelling argued) constitutes ‘bargaining power’. The exploitation of that power is in turn ‘diplomacy, vicious diplomacy, but diplomacy’. Such ‘vicious diplomacy’ is concerned with strategies of coercion, or ‘forceful persuasion’ that erode ‘an opponent’s motivation by exploiting the capacity to inflict damage, and thus creating the expectation of unacceptable costs in the event of noncompliance with demands’. Schelling focused primarily on the distinctions between two types of ‘vicious diplomacy’, deterrence and compellence; while Alexander George’s broader conception of coercive diplomacy encompassed not only such threats of the use of force but

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also employment of persuasion, positive inducements and accommodation to affect an opponent’s will.\(^7\)

For most of the period since 1945, analysis of the practices and theories of deterrence have considerably outweighed those focused on compellence. Given the realities of the Cold War and the exigencies of mutually assured destruction (MAD), it is understandable that scholars have predominantly focused on the logics and practices of threats intended to dissuade an adversary from doing something. However, one outgrowth of this has been to view deterrence and compellence as related but distinct aspects of coercive diplomacy.\(^8\)

The predominant Western understanding of deterrence is straightforward: ‘the persuasion of one’s opponent that the costs and/or risks of a given course of action he might take outweigh its benefits’.\(^9\) The object of deterrence is thus dissuasion – that is a threat ‘intended to keep an adversary from doing something’. Compellence, in contrast, concerns the use of threats ‘to make an adversary do something’.\(^10\)

For most Western theorists, the first distinction between compellence and deterrence is in the specific relationship between threat and the use of force. The issuing of threats is considered sufficient for dissuasion but insufficient for compellence, which requires *both* the threat and the exemplary use of force to succeed. Deterrence, in this understanding, ‘employs threats to preserve the status quo’ while compellence uses threats to induce ‘a revision to the status quo’.\(^11\)

The other fundamental distinction between the concepts concerns the issues of timing and initiative, that is who has the initiative in the practice of each concept. ‘Deterrence’, as Schelling put it, ‘involves setting the stage – by announcement, by rigging the trip-wire, by incurring the obligation – and waiting’.\(^12\) Compellence, in contrast, ‘involves initiating an action that can cease, or become harmless, *only* if the opponent responds...To compel one gets up enough momentum to make the other *act* to avoid collision’.\(^13\) Deterrence in this understanding is therefore

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11 Dan Altman, ‘By fait accompli, not coercion’, p 882.
both a more passive and status quo–oriented form of coercive diplomacy than compellence.\textsuperscript{14} Compellence is generally conceived of as a much more difficult form of coercion to successfully implement ‘because in contrast to deterrence, which requires an invisible concession, it requires target actors to behave in ways that are highly visible and more likely to involve major costs at home and abroad’.\textsuperscript{15}

In summary, deterrence ‘is a coercive strategy designed to prevent a target from changing its behavior’, where a deterrer issues deterrent threats ‘because it believes a target is about to, or will eventually, change its behaviour in ways that hurt the coercer’s interests’.\textsuperscript{16} Compellence, conversely, is a coercive strategy based on the imposition of costs through ‘either threat or action’ until the target changes its behaviour in ways specified by the coercer.\textsuperscript{17} Nonetheless, there is a consensus that ‘the coercive policies of deterrence as well as of compellence rely on the threat of future military force to influence adversarial decision-makers’ but that the ‘limited use of actual force may be required for compellence to work’.\textsuperscript{18}

\section*{Deterrence with ‘Chinese characteristics’}

How, then, do these predominant understandings of deterrence and compellence relate to the Chinese case? Most immediately, as Dean Cheng argues, the Chinese term most often translated into English as deterrence, 威懾 (wēi shè), ‘embodies both dissuasion and coercion’.\textsuperscript{19} A review of authoritative documents (for example Chinese defence white papers and declaratory documents,) and semi-authoritative compendiums (such as Science of Military Strategy (SMS), published biennially by the Chinese Academy of Military Sciences) illustrate this link.\textsuperscript{20} The

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\textsuperscript{17} Art and Greenhill, ‘Coercion: an analytical overview’. \textsuperscript{18} Sperandei, ‘Bridging deterrence and compellence’, p 258.
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\textsuperscript{20} Joel Wuthnow and M Taylor Fravel, ‘China’s military strategy for a “new era”: some change, more continuity, and tantalizing hints’, Journal of Strategic Studies, March 2022. https://doi.org/10.1080/01402390.2022.2043850. Joel Wuthnow and M Taylor Fravel suggest that this method constitutes the ‘best practice’ for research on the PLA: ‘Authoritative sources would include those that speak for the PLA or the CCP on military affairs, such as white papers, public statements by defense spokespersons or other party documents. Authoritative but not definitive sources (or ‘semi-authoritative’) would include those publications by PLA organizations or individuals from within the PLA likely to have knowledge of topics such as the PLA’s military strategic guidelines, including leading research institutes such as the Academy of Military Science and its experts on strategy, tactics, and doctrine’.
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most recent 2020 SMS, for example, asserts clearly that deterrence (wēi shè) has two functions: ‘One is to stop the other party from doing what they want to do through deterrence’ (i.e. dissuasion) and ‘the other is to use deterrence to coerce the other party to do what they must do’ (i.e. compellence). Chinese understandings of the concept also frame it explicitly as an instrument rather than as a goal of policy. The focus is not ‘deterring action in one or another domain’ or establishing deterrence as an underlying condition but in ‘securing the larger Chinese strategic objective’. The 2020 SMS underlines this by noting that

Strategic deterrence [wēi shè] is a method of military conflict to achieve a political goal based on military strength, a comprehensive use of various means, through clever display of strength and determination to use strength, makes the other party face unworthy or even unbearable consequences, and is forced to give in, compromise, or surrender.

This definition, as Kyle Marcum notes, ‘accentuates the PLA’s lack of distinction between coercion, deterrence, compellence, and dissuasion’. While there are Chinese words for each of these terms ‘they are rarely used’. China’s 2019 Defence White Paper, for instance, uses ‘the term 懾止 (shezhi, literally ‘use fear to stop’) and China’s own English translation uses shezhi as ‘to deter’, further hinting at a different meaning for wēi shè.

Beyond this question of definitional clarity, deterrence is conceived of in Chinese writings not as a static activity but one that has phases of application across a peacetime–crisis–war spectrum. The 2013 SMS, for example, details that during peacetime the objective is to employ ‘a normalised deterrence posture to force an opponent to not dare to act lightly or rashly’ based on ‘low-intensity military activities’, such as holding military exercises, ‘displaying advanced weapons’ and diplomatically asserting China’s ‘strategic bottom line’. This is suggestive

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of the notion of ‘general deterrence’ where ‘arms and warnings are a contribution to the broad context of international politics’ in which the core objective ‘is to manage the context so that for an opponent it will appear basically unattractive to resort to force’. In crisis situations, in turn, the PLA will adopt ‘a high intensity deterrence posture, to show a strong resolve of willingness to fight and powerful actual strength, to force an opponent to promptly reverse course’. The cognate of this in Western understandings is arguably ‘immediate deterrence’, which is concerned with ‘the relationship between opposing states where at least one side is seriously considering an attack while the other is mounting a threat of retaliation in order to prevent it’. The distinction between these, as Lawrence Freedman notes, ultimately concerns ‘the degree of strategic engagement between deterrer and deterred’. Immediate deterrence ‘involves an active effort to deter in the course of a crisis when the efficiency of any threats will soon be revealed in adversary behaviour’. Whereas, general deterrence ‘is altogether more relaxed, requiring merely the conveyance of a sense of risk to a potential adversary to ensure that active hostilities are never seriously considered’.

Where the Chinese approach departs from those of the West in this context concerns the operation of deterrence in the space between crisis and war. If war does break out, the objective, the 2013 SMS and 2020 SMS note, becomes ‘war control’ (战争控制, zhànzhēng kòngzhì). War control has been equated with notions of escalation management or control. Yet another possibility is suggested by analysis of the treatment of this term in the 2013 SMS and 2020 SMS documents. One view is that war control is in fact to be ‘used within the opportunity between total war and total peace. The outbreak of war is a condition which makes war control possible. Preventing war is not among its imperatives’. As such, it is a warfighting concept.

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On Chinese deterrence thought and practice circa 2022

The 2013 SMS provided a snapshot of the essence of ‘war control’ when it noted that it means:

grasping the war’s initiative, to be able to adjust and control the war goals, means, scales, tempos, time opportunities, and scope, and to strive to obtain a favourable war conclusion, at a relatively small price.\(^{32}\)

By picking ‘the timing for the start of the war’ and surprising the enemy by attacking ‘where they are least prepared’, China can ‘seize the battlefield initiative, paralyze the enemy’s war command, and give shock to the enemy’s will’ and thus ‘achieve victory even before the fighting starts’.\(^{33}\)

The 2020 SMS chapter on ‘war control’ provides further detail by identifying three necessary stages for its successful employment: the ‘control of war techniques’ (i.e. deliberate control of escalation through grey zone–conventional–nuclear capabilities); control of the pace, rhythm and intensity of conflict (i.e. centrality of shifting from defensive to offensive operations at the outbreak of conflict); and control of or the ability to ‘proactively end the war’ (i.e. an ‘escalate to de-escalate’ approach).\(^{34}\)

This suggests two implications. First, the continued focus on ‘war control’ is informed by the PRC’s historical conflict behaviour, where Beijing has had a ‘heavy preference for escalation over de-escalation to bring a conflict to an end’.\(^{35}\) This ‘escalate to de-escalate’ approach ‘in the early stages of conflict’, as Oriana Skylar Mastro notes, is seen as having strengthened ‘China’s strategic deterrent, preventing the outbreak of total war’ during the Korean War, the Sino-Indian border war and the Sino-Vietnamese War.\(^{36}\) Second, the delineation of ‘war control’ into distinct phases suggests it ‘is intended to ensure flexibility in military options so the Chinese Communist Party can realise its political ambitions and affect its desired policy without compromise’ and that Chinese strategists believe that warfighting intensity can be precisely controlled.\(^{37}\)

Finally, the application of the Chinese concept of deterrence across a peacetime–crisis–war spectrum also raises the possibility that the PLA envisages a sequential application of deterrence and compellence. While deterrence and compellence


\(^{36}\) Mastro, ‘The theory and practice of war termination’.

have often been treated as separate but related concepts, a case can be made that the distinction between the two is not so clear-cut in practice, as ‘they can be formulated and applied at sequential stages in the management of a crisis’.\(^{38}\)

In fact numerous cases throughout the twentieth century – from Cold War crises over Berlin, the Taiwan Strait, and Cuba to the First Gulf War – are suggestive of this. The Cuban Missile Crisis, for example – often popularly thought of as a successful instance of deterrence – saw the Kennedy administration attempt to simultaneously communicate two warnings to the Soviet Union. There was a compellent one, to stop installation of Soviet missiles in Cuba in autumn 1962, and a deterrent one – via the naval blockade of the island – aimed at preventing the arrival of additional missiles when compellence failed.\(^{39}\)

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The how and why of such a dynamic is straightforward: if ‘actor A is warning actor B not to do X (= A is deterring B), A has (or should have) an idea about how to react if B decides to do X (a compellence strategy). If A’s deterrent threat fails (= B decides to do X), A puts in motion its compellent policy’.\(^{40}\)

That China may envisage such a phased application of deterrent and compellent policies is implied in two passages of the 2020 SMS’s discussion of the ‘role of strategic deterrence’ in peacetime, crisis and war. In peacetime, it suggests that deterrence ‘is mainly the use of national military power, combined with political, economic, diplomatic, technological, cultural and other strategic forces to influence the development of the situation and delay or stop the outbreak of war’.\(^{41}\)

However, during a crisis, use of deterrence ‘may delay the outbreak of war and create conditions for the country to make other political choices and prepare for war’. But if ‘war is imminent’, deterrence ‘can either seize the last chance to avoid war, or gain the initiative in war, especially the first battle, and create a favorable military situation for entering a state of war’.\(^{42}\)

Finally, during war, ‘strategic deterrence’ may slide directly into compellence. The 2020 SMS asserts here, for example, that a:

‘surgical’ attack on the enemy in a local war is actually an application of strategic deterrence in war. The two sides of the war are a contradictory unity. In the case of a strategic balance of power between the two sides of the war, if one party can adopt the correct strategic policy and skilfully play the role of strategic

\(^{38}\) Sperandei, ‘Bridging deterrence and compellence’, p 261.
\(^{40}\) Sperandei, ‘Bridging deterrence and compellence’, p 262.
deterrence, so that the other party can truly feel that continuing the confrontation does not pay off, it can shake its determination and will and abandon the attempt to continue the war.\textsuperscript{43}

Such an approach is consistent with China’s over-arching defence strategy of ‘active defence’. As China’s 2019 Defence White Paper states, China’s strategic guidance rests on the principle of ‘we will not attack unless we are attacked, but we will surely counterattack if attacked’ and ‘places emphasis on both containing and winning wars, and underscores the unity of strategic defense and offense at operational and tactical levels’.\textsuperscript{44}

**Some implications of China’s ‘vicious diplomacy’**

China, as detailed above, conceives of and practices deterrence in a distinct manner that combines dissuasive and compellent forms of coercion, emphasises that its practice of deterrence is an instrument for the achievement of politico-military objectives, and may envisage a sequential application of deterrent and compellent postures across a peacetime–crisis–war spectrum. This holds implications for understanding future Chinese behaviour in crisis and conflict scenarios, as may occur over the status of Taiwan. China’s evolving strategy toward Taiwan is arguably consistent with the deterrence and compellence meanings encompassed by 威慑 (wēi shè). This can be seen in the dual nature of Chinese strategy, as it seeks to dissuade Washington from intervening should China choose to use force across the Taiwan Strait and simultaneously compel Taipei to accept its concept and model of ‘reunification’.

To achieve the first objective (that is, to dissuade Washington), China has sought to decisively shift the military balance between it and Taiwan, while developing capabilities to delay or deny the US military access to the island and its surrounds in the event of conflict. In essence, China has pursued what Evan Montgomery has described as a ‘local balancing’ strategy. China has abjured developing the ‘ability to conduct large-scale military operations outside its region’, in favour of ‘progressively extending its defensive perimeter within its region’ so as ‘to deter outside intervention in its home region and maximize its freedom of action throughout its neighborhood’.\textsuperscript{45}


China’s ability to deter US intervention in and around Taiwan has been based on significant investment in anti-access/area denial (A2/AD) capabilities, including the deployment of a diverse suite of short-range ballistic missiles (SRBMs), medium-range ballistic missiles (MRBMs) and intermediate-range ballistic missiles (IRBMs) – such as the DF-15 and DF-16 SRBMs, the anti-ship DF-21D MRBM, and DF-26 IRBM deployed by the PLARF brigades tasked with Taiwan contingencies.⁴⁶ Chinese analyst, Eric Heginbotham notes such missile capabilities are ‘a particular area of Chinese strength’ that provide it with ‘advantages in areas immediately surrounding China’.⁴⁷

During the exercises from 3 to 10 August 2022, China’s missile launches most likely involved the DF-15 variant, which is designed for ‘precision strike, bunker-busting, and anti-runway operations’, although Taiwan’s Ministry of National Defense has not yet been so definitive.⁴⁸ Other elements of the PLA’s exercises consistent with an A2/D2 approach vis a vis US forces were the inclusion of air and sea-based anti-submarine capabilities, such as the Y-8 surveillance/anti-submarine warfare aircraft and regular sorties of the PLA Airforce’s (PLAAF) J-11 and J-16 fighters (aircraft thought to be capable of carrying the PL-15 air-to-air missile, which is optimised to target aerial refuelling and airborne early warning control aircraft across the ‘median line’ of the Taiwan Strait).⁴⁹

Significantly, as RAND analyst Mark Cozad argues, such capabilities provide the

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PLA with ‘numerous options to hold at risk major US bases, logistics hubs, and command-and-control facilities throughout the region’.50

China’s desire to compel Taiwan was also on display during the exercises and was consistent with its long-term strategy toward Taiwan. This strategy seeks to integrate a variety of diplomatic, economic and military instruments to coerce and deter Taipei (and the United States) from any deviation from Beijing’s interpretation of the ‘One China policy;’51 which holds that ‘there is only one China in the world, Taiwan is a part of China and the government of the PRC is the sole legal government representing the whole of China’.52 The problem for Beijing is that the current political trendlines on the Taiwan issue are contrary to its objectives, as the Tsai Ing-wen government moves away from anything resembling a ‘One China’ perspective, and Taiwanese society sees the solidification of Taiwanese national identity and declining support for any notion of ‘reunification’ with the Chinese mainland.53

The moves of the Trump and, now, Biden administrations toward greater support for Taiwan – including increased arms sales and indications of diluted commitment to ‘strategic ambiguity’ on the issue – suggest a diplomatic environment far less permissive of Beijing asserting its claims to Taiwan than in the recent past.54 For Beijing, such developments indicate that while ‘US authorities have stated that they remain committed to the one-China policy and that they do not support “Taiwan independence”…their actions contradict their words’ as Washington is


53 For the Tsai Ing-wen government’s approach to cross-strait relations see: LC Russell Hsiao and HH Michael Hsiao, ‘Cross-strait relations under the Tsai administration’ in June Teufel Dreyer and Jacques de Lisle (eds), Taiwan in the Era of Tsai Ing-wen: Changes and Challenges, Routledge, London, 2021; and for shifting attitudes regarding Taiwanese identity see, ‘Taiwanese/Chinese Identity Trends (June 1992 to June 2022) [webpage]’, Election Study Center, National Chengchi University, Taipei, 12 July 2022. https://esc.nccu.edu.tw/PageDoc/Detail?fid=7804&id=6960

‘clouding the one-China principle in uncertainty and compromising its integrity’ by ‘contriving “official” exchanges with Taiwan, increasing arms sales, and colluding in military provocation’. 55

From Beijing’s perspective, then, the current political trends – if left unchecked – threaten its worst-case scenario: a US that abrogates ‘strategic ambiguity’ and a Taiwan that is domestically united on de facto (if not de jure) independence. 56 This heightens its incentive to engage in coercive diplomacy. Here, China is arguably seeking to leverage what it sees as its growing military advantage vis-à-vis Taiwan to demonstrate the punishments and costs that it can impose should Taipei not move back toward what Beijing believes is the ‘bottom line’ for cross-strait relations (in other words, acceptance of its ‘One China principle’). In August, this was done through Beijing’s imposition of a variety of economic and diplomatic sanctions backed by the military exercises that directly impinged upon Taiwan’s territorial waters, exclusive economic zone and air defence identification zone. 57 For example, the exercises conducted off China’s Pingtan Island, at the narrowest point of the Taiwan Strait, and in the Bashi Channel, which separates waters within the First Island Chain from the Philippines Sea and the broader Pacific Ocean, demonstrated China’s capability to control these vital chokepoints in a potential quarantine or blockade of Taiwan. 58 That these activities were designed to signal China’s capability to impose such punishment was underlined by an analyst from the Naval Research Academy of the PLA, who asserted that this element of the exercises constituted a ‘closed encirclement posture towards Taiwan Island’ where the PLA could force ‘a situation of closing the door and hitting dogs’ in the event of conflict. 59 The Taiwanese commentator, Chen Kuohsiang assessed the exercises in a similar fashion, suggesting it amounted to ‘an attack simulation’ that demonstrated China would claim ‘sovereignty over Taiwan by locking down


59 World Wide Web Information, ‘Foreign media interpret the six major exercise areas of the People’s Liberation Army: a number of Taiwan military bases bear the brunt [webpage]’, NetEase, 4 August 2022 16:32. https://www.163.com/dy/article/HDTKAHSK0514R9CJ.html
the island’, depriving Taiwan of ‘its strategic manoeuvring space’ and restricting the ‘US’s support from the east’ in the event of conflict.\textsuperscript{60}

However, a number of open questions remain about how these exercises relate to China’s concepts of deterrence and compellence. First, the 2020 SMS envisages the sequential application of deterrent and compellent strategies across a peacetime, crisis and war spectrum. As such we may ask where the 3 to 10 August exercises lie on this spectrum. Arguably they presented a mixed picture. On the one hand, some elements of the exercises were consistent with the ‘normalised deterrence’ posture – based on ‘low-intensity military activities’ such as ‘displaying advanced weapons’ and diplomatically asserting China’s ‘strategic bottom line’ – that the 2020 SMS identified as appropriate for peacetime. On the other hand, however, the scale and intensity of the exercises coupled with strident official statements were suggestive of the ‘high intensity deterrence posture’ detailed in the 2020 SMS designed to demonstrate ‘a strong resolve of willingness to fight and powerful actual strength, to force an opponent to promptly reverse course’.

Second, China may find that in practice coercion is anything but straightforward. This is due to the fact that its objective regarding Taiwan – ‘reunification’ on Beijing’s terms – abrogates the basic engine of coercive diplomacy. The goal of coercive diplomacy, Tami Davis Biddle argues, ‘is to force the target state (or actor) to choose between conceding the disputed stake or suffering future pain that making such a concession would avert’.\textsuperscript{61} Crucially, the coerced state ‘must be convinced that if it resists it will suffer, but if it concedes it will not’. However, if ‘it suffers either way, or if it has already suffered all it can, then it will not concede and coercion will fail’.\textsuperscript{62} Here China’s current behaviour provides Taiwan with ample proof that it will suffer regardless of whether it resists or concedes to Beijing’s coercion. As a result, Taiwan’s resolve has arguably been strengthened.\textsuperscript{63} As Taipei’s representative to the US, Hsiao Bi-khim, stated, China’s ‘attempt at coercion’ would spur greater efforts at both ‘fortifying our own defenses’ through ‘our domestic defense industry’ and ‘foreign military sales projects with the United States’ and increase Taiwan’s diplomatic engagement to ‘galvanize international support’ to deter China.\textsuperscript{64}

\begin{thebibliography}{9}
\bibitem{Chen Kuohsiang} Chen Kuohsiang, ‘Taiwan Strait war will destroy peace and trade in the Asia–Pacific region’, \textit{ThinkChina}, 18 August 2022, \url{https://www.thinkchina.sg/taiwan-strait-war-will-destroy-peace-and-trade-asia-pacific-region}.
\bibitem{Tami Davis Biddle} Tami Davis Biddle, ‘Coercion theory: a basic introduction for practitioners’, \textit{Texas National Security Review}, 2020, 3(2):94–109, \url{http://dx.doi.org/10.26153/tsw/8864} or \url{https://tnsr.org/2020/02/coercion-theory-a-basic-introduction-for-practitioners/}.
\bibitem{Biddle} Biddle, ‘Coercion theory: a basic introduction for practitioners’.
\bibitem{Ryan Haas} Ryan Haas, ‘What is Taiwan’s plan to protect itself against Chinese pressure?’, \textit{Order from chaos}, Brookings Institution, 19 August 2022, \url{https://www.brookings.edu/blog/order-from-chaos/2022/08/19/what-is-taiwans-plan-to-protect-itself-against-chinese-pressure/}.
\end{thebibliography}
Finally, the concept of ‘war control’ indicates that China believes coercion can be precisely calibrated, ramped up or down as the situation dictates. Taiwan’s resolve to resist Beijing’s coercion has likely increased as a result of the August military exercises. But, will Beijing recognise that coercion has backfired or judge that more rather than less coercion is now required to attain its objective? Two factors suggest Beijing will opt for the latter rather than the former. One is that Beijing has indicated it will seek to make exercises, such as those conducted from 3 to 10 August, ‘routine’. This is significant as it may permit China to establish a new status quo regarding its violations of Taiwan’s airspace and territorial waters that would enhance its ability to undertake successful ‘war control’ and provide it with a dispositional advantage to dictate the modes, intensity and duration of further coercion. Another factor, related to Beijing’s belief in the capacity to precisely control coercion, is an apparent confidence in the controllability of conventional modes of escalation. The 2020 SMS explicitly notes here, that:

> the development of high-tech conventional weapons has not only narrowed the gap between combat effectiveness and nuclear weapons, but also has higher accuracy and greater controllability. Conventional deterrence is highly controllable and less risky, and generally does not lead to devastating disasters like nuclear war. It is convenient to achieve political goals and becomes a credible deterrence method.

In sum, China has demonstrated its willingness and capability to engage in coercive diplomacy that seeks to deter the United States from intervention should Beijing choose to use force to achieve ‘reunification’ and compel Taiwan toward acceptance of its ‘One China’ principle. Through the 3 to 10 August exercises China signalled both Washington and Taipei that it has a growing confidence in the capabilities of the PLA to enact its doctrinal and operational deterrence concepts in pursuit of the objective of ‘reunification’. Perhaps most concerning, however, is that the concept of ‘war control’ combined with China’s apparent confidence in the manageability of conventional escalation suggests not only that Beijing will further escalate its coercive efforts in and across the Taiwan Strait in the near term but also there is a real possibility that in doing so it will miscalculate just how far it can push Taiwan (and the United States) without precipitating an outright military clash.

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Coercion, compellence and conquest: Russia’s ‘strategic deterrence’ concept in theory and practice after the invasion of Ukraine

Matthew Sussex

One of the more pressing tasks currently facing Western strategic planners is to develop responses to the increasingly assertive behaviour of states seeking to challenge the rules-based international order. While much attention has understandably been directed at China, as the main state potentially capable of replacing that order with one of its own devising, understanding the dynamics of Russian strategic policy has also become more important, especially in light of Vladimir Putin’s invasion of Ukraine in February 2022. Unfortunately, though, there has been a marked tendency in recent Western scholarship on Russian strategic thought to oversimplify it in ways that are easily digested yet frequently inaccurate.

One obvious example has been the earnest writing about the so-called 2013 ‘Gerasimov Doctrine’, which was actually an attempt by Russian military thinkers to articulate (albeit mistakenly) how the West sought to weaken Russia rather than a grand plan to wage total war on the West.1 Another has been the excitement generated by the supposed ‘escalate to de-escalate’ Russian nuclear posture. A number of commentators have confidently argued that it suggests the Kremlin has a higher appetite for risk than the West and is prepared to use nuclear

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weapons in any conflict with NATO, in order to force the US and its allies to back down. Yet Russia’s declared 2020 Basic Principles on Nuclear Deterrence revolve around the notion that it would either respond in kind if it were attacked with nuclear arms first, or would need to be on the brink of state collapse before it considered nuclear first use. This less-than-precise understanding of the purpose and implications of Russian strategy is problematic: not least because it can lead to flawed assumptions about Russian intentions but also because it results in flawed policy responses.

In an effort to redress those tendencies, this essay examines Russia’s approach to deterrence, focusing especially on how it is conceptualised and applied. First, I demonstrate that Russian ideas about deterrence go beyond traditional paradigms associated with threatening unacceptable costs for aggression via retaliatory destruction (deterrence by punishment), or by preventing aggressors from easily benefiting from their actions (deterrence by denial). Indeed, Russian debates on the topic have cohered since the 1990s around what its military strategists refer to as ‘strategic deterrence’: a broad and holistic approach designed to operate in peacetime as well as during crises, and utilising various coercive capabilities across Russia’s nuclear, conventional, economic, diplomatic and information warfare toolkits. Second, I examine the coercive aspects of Russia’s ‘strategic deterrence’ framework, which blends deterrence with compellence, making it as much an instrument of Russian statecraft as a policy specifically designed to manage conflict. Finally, I assess some implications of Russian ‘strategic deterrence’ for Western strategic practice in the aftermath of Russia’s 2022 invasion of Ukraine. These are centred on the effectiveness of...


5 See for instance Glenn H Snyder, Deterrence by Denial and Punishment, Center of International Studies, Princeton NJ, January 1959.

Russia’s deterrent posture, how credible Moscow perceives NATO’s deterrent to be, and the prospects for deterring the Kremlin in future.

**Understanding ‘strategic deterrence’**

In his keynote address to the Academy of Military Sciences in March 2019, the Chief of Russia’s General Staff Valery Gerasimov outlined what he saw as the main tasks and purposes of Russia’s nuclear, conventional and non-military deterrent capabilities. His speech, later published by the Russian armed forces newspaper *Krasnaya Zvezda* (Red Star), called for Russian defence policy to revolve around the ‘pre-emptive neutralisation of threats’. Retaining surprise and decisiveness, Gerasimov argued, was the key to the creation of an ‘active defence’ designed around the rapid discernment of an adversary’s weak spots, against which threats of unacceptable damage could be made. This, according to Gerasimov, would ensure that Russia would have the means for ‘the capture and the continued possession of the strategic initiative’: effectively, the maintenance of escalation control.

Gerasimov’s speech, which served as a preface to the development of a new Russian Military Doctrine requested by President Vladimir Putin in late 2018, was an important lesson in how Russian strategic thinking around war and deterrence has evolved, particularly in comparison to Western approaches. Russia today views deterrence as an iterative process that seeks to maintain the strategic advantage through a mix of intimidation and dissuasion, along a spectrum of conditions ranging from peace to conflict and all-out war – up to and including the use of nuclear weapons. The concept is at once granular, in the sense that it seeks to calibrate the threat of ‘deterrence damage’ to adversaries; adaptive, in terms of enabling the ability to scale up or down as circumstances dictate; and comprehensive, in that it seeks to deploy any of Russia’s available levers of power in a deterrence cocktail tailored to a specific foe.

This is markedly different to how deterrence has been conceived of in the West. In the United States, for instance, thinking on deterrence has focused

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9 Johnson, ‘General Gerasimov on the vectors of the development of military strategy’.

heavily on the nuclear dimension. It has only recently begun to sketch out how a strategy for conventional deterrence across multiple domains of warfighting – and involving multiple partners – might be operationalised. The most recent iteration has been the Biden administration’s emerging but underdeveloped notion of ‘integrated deterrence’ in relation to China in particular.\(^\text{11}\) At its core, it seeks to blend deterrence by punishment (the threat of imposed costs) with deterrence by denial. It does so through the development of a more resilient network of alliances and partnerships operating across the different domains of warfighting, as well as an emphasis on maintaining the technical superiority of US conventional and nuclear forces.\(^\text{12}\)

In contrast, as Michael Kofman and Jeffrey Edmonds have pointed out, the concept of *denial* is absent from the Russian strategic lexicon.\(^\text{13}\) When Russian strategists speak about deterrence, they tend to do so by using the general term *sderzhivanye*, which literally means ‘keeping out’ or ‘holding back’.\(^\text{14}\) This is taken to mean ‘deterrence’ in the West, but it more closely translates as ‘containment’. An alternative term used in the Russian deterrence discourse is *ustrashenie* – literally, ‘intimidation’, the use of fear to deter through coercion, and more commonly applied to adversaries like the United States. A third word – *prinuzhdenie* – is synonymous with compellence: forcing an adversary to change their behaviour.\(^\text{15}\) The more specific term *silovoye sderzhivanye* has also begun to enter common usage, usually to describe a ‘forceful’ form of deterrence that envisages the limited use of military capabilities.\(^\text{16}\)

With this in mind, it is useful to consider the Russian Ministry of Defence’s definition of ‘strategic deterrence’:

A coordinated system of military and non-military (political, diplomatic, legal, economic, ideological, scientific–technical and others) measures taken consecutively or simultaneously [...]

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Coercion, compellence and conquest: Russia’s ‘strategic deterrence’ concept in theory and practice after the invasion of Ukraine

with the goal of deterring military action entailing damage of a strategic character.\(^{17}\)

‘Strategic deterrence’, as the Ministry of Defence puts it, is ‘directed at the stabilisation of the military–political situation’ in order to ‘influence an adversary within a predetermined framework, or for the de-escalation of military conflict’.\(^{18}\) As to the targets of Russian deterrence efforts, the Ministry of Defence sees the ‘objects to be influenced’ as constituting either ‘the military–political leadership and the population of the potential adversary state (or coalition of states)’. It concludes that strategic deterrence is ‘carried out continuously, both in peacetime and in wartime’.\(^ {19}\)

Two further points are instructive here, in terms of the ways in which Russia understands deterrence. First is that it is defined as a mechanism of influence, encompassing a much wider time frame than the immediate types of deterrence we traditionally associate with case studies like the Cuban Missile Crisis. Indeed, it superficially resembles what Michael Mazaar calls ‘general deterrence’, as witnessed (for example) in the case of US nuclear strategy towards the USSR throughout the Cold War.\(^ {20}\) But the key difference is that instead of a non-specific type of dissuasion or attempts to persuade an adversary that the ‘costs and/or risks of a given course of action outweigh its benefits’, as Alexander George and Richard Smoke put it,\(^ {21}\) Moscow envisages deterrence as a policy instrument that can compel as well as dissuade. Second, because it encompasses the full suite of national security tools at its disposal, Russia’s ‘strategic deterrence’ – at least on the face of it – becomes an active and goal-directed coercive component of national security policy, rather than a more passive general condition to manage peacetime interactions with potential adversaries.

‘Strategic deterrence’ as an instrument of Russian statecraft

Viewed in this way, Russia’s ‘strategic deterrence’ is almost synonymous with a broader national security concept. With the capacity to use different forms of power, influence and leverage – from energy dependencies to political warfare,
cyber and hybrid operations and even limited coercive force – it is certainly a framework for Russian statecraft, with the potential to advance Russian national interests not simply keep would-be aggressors at bay. And the coercive emphasis of the Russian approach, effectively seeking to force others to do what they would otherwise not choose to do, helps to explain Russian behaviour such as grey-zone activities against the West, the intimidation of smaller NATO states in the Baltics, and its regular issuance of nuclear threats.

In the military domain, and not just in the realm of strategic and non-strategic nuclear weapons, Russian strategists have devoted significant attention to the notion of damage. The premise for this was considering whether damage ‘could be “tailored” to the adversary in specific circumstances’. The subsequent concept of ‘deterrent damage’ has been extensively studied and has become a core theme in Russian military thinking. This includes considering the specific political system of adversary states and what reactions they are likely to make to different types of coercion. It also incorporates discussions about ‘strictly dosed damage’, either through conventional or nuclear means, in order to dissuade opponents instead of provoking them into retaliation. This has implications for Russian force posture, where units comprised largely or entirely of conventional forces are also now seen as playing roles in strategic deterrence, either through their ability to apply dosed damage, or to supplement Russian non-strategic and strategic nuclear forces in larger conflicts. The integration of conventionally armed units into strategic deterrence provides avenues for adversaries to seek non-nuclear de-escalation, and to act as a buffer zone between conventional and nuclear war.

As this thinking has evolved, it has also incorporated a more sophisticated three-tier or ‘layered’ methodology for deterrence. This incorporates local, regional and global deterrence systems. Locally, this is envisaged as being employed largely through conventional forces (as witnessed in the Russian experience in Syria, for instance) to shape the battlefield and compel adversaries to seek de-escalation. Regionally, conventional forces are seen as helping to smooth transitions from lower to higher intensity conflict when deterrence fails and as providing additional chances for de-escalation before transitioning to the use of nuclear weapons. Globally, the emphasis is on priventivnye (preventative)

23 Fink and Kofman, ‘Russian strategy for escalation management’.
nuclear threats to control escalation rather than threats of conventional war. This reflects Russia’s comparative strategic conventional disadvantage over its likely Western adversaries, but aims to reinforce that Russia’s parity in nuclear weapons would make its complete capitulation in any conflict impossible.

However, aspects of compellence can also be found in Russia’s employment of non-military domains within the broader overall concept of strategic deterrence. Chiefly they revolve around political and diplomatic signalling and economic coercion, although ‘informational-psychological’ (information warfare, both cyber-enabled and traditional), as well as ‘informational-technical’ (offensive cyber) capabilities have become increasingly important levers of Russian power. The main objective of these instruments is to hinder the adversary’s ability to produce a robust response and to induce fear about costs, especially when dealing with coalitions of states with different vulnerabilities. Similarly, the communication of Russia’s ability to cause harms to adversaries, either through non-military or military means, is regarded as being important in limiting the scope of conflicts and deterring more powerful states from becoming too heavily involved in smaller local wars.

**Russia’s invasion of Ukraine and ‘strategic deterrence’**

Russia’s conduct during its invasion of Ukraine can be understood through the lens of ‘strategic deterrence’. This is because it combined threats of conflict with active coercive measures that are part of the Russian ‘strategic deterrence’ mix. It has included the weaponisation of political and diplomatic efforts to achieve national interest objectives; the use of economic coercion to soften Western retaliation; demonstration effects of new technologies; the employment of nuclear threats to prompt conflict de-escalation; and the use of conventional military capabilities to achieve strategic ends. And while in many respects the war in Ukraine can be seen in isolation as a failure by Russia to achieve its war

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28 Of course, as students of the stability–instability paradox would know, this is potentially risky – since overemphasising stability at the global level risks making local wars hotter. See for example Robert Jervis, ‘Why nuclear superiority doesn’t matter’, Political Science Quarterly, 1979, 94(4):617–33.
aims, as part of a strategic deterrence agenda against the United States and the broader West, it has been at least a partial success. This has important implications for Western strategic planning for future deterrence efforts in relation to Russia.

The formative (or pre-crisis) phase of the conflict revolved around Russia issuing unrealistic demands of both NATO and Ukraine, in addition to a large build-up of conventional Russian forces on its border with Ukraine and in Belarus. Russia sought nothing less than a return to the strategic geography of the mid-1990s, including a drawdown of NATO forces in Eastern and Central Europe. The Kremlin also demanded of Ukraine what effectively amounted to a de facto Russian veto over Ukraine’s foreign and security policy agenda, by insisting on the full implementation of the Minsk II protocol.29 That agreement ultimately required all the regions of Ukraine to agree to any major strategic decisions taken by Kyiv. Importantly, it included those regions that – in the absence of a pathway to fair plebiscites determining their status – remained under the control of local governments supported by Moscow.

Not surprisingly, NATO members refused to accede to the Russian insistence that nothing short of the reorganisation of European security structures would prevent it from invading Ukraine. There was also an understandable disinclination to give in to Moscow’s threats on the part of the government in Kyiv, which had endured eight years of Russian-sponsored armed separatism in the Donbas region, not to mention the seizure of Crimea in 2013.30 The issuance of threats that Moscow clearly knew had no chance of succeeding, not to mention its unwillingness to entertain Western offers of off-ramps, demonstrated that the diplomatic phase of the conflict was in part a façade designed to buy time before the Russian military build-up was complete. It was also an opportunity to shape the narrative environment. Russian domestic and international propaganda efforts ramped up to focus on the convenient grievances of NATO expansion as an existential threat and the intolerable presence of a ‘Nazi-dominated’ – and

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Western-backed – government in Kyiv.\textsuperscript{31} In doing so, the Kremlin sought to deter NATO from joining the conflict as a third party by emphasising the possibility of nuclear war,\textsuperscript{32} and at the same time used the conquest of Ukraine to force the West to accept an expanded Russian sphere of influence.

Importantly, this bears all the hallmarks of a compellence posture. As Rob Lee has put it, Russia’s behaviour reflects the calculation that if the Kremlin is unable to persuade the US to give in to its demands, military force is an option to ‘change what it considers an unacceptable status quo’.\textsuperscript{33} It is also consistent with the parameters outlined by Gerasimov in 2019, with its emphasis on pre-emption, surprise and strategic initiative as prerequisites for escalation control as well as important components of broader strategic deterrence.

The imposition of costs via deterrent damage can also be extrapolated from Russia’s conduct in the war, both at the local level and the regional one. With respect to Ukraine itself, Moscow has utilised symbolic acts of destruction – such as the levelling of the city of Mariupol, the use of thermobaric weapons (including fuel-air ‘vacuum bombs’), and the extensive targeting of other civilian centres – in order to communicate to Kyiv the price of continued resistance. Regionally the Kremlin has largely focused on imposing non-military costs, exploiting energy dependencies in European states by halting gas supplies to Germany and other EU states,\textsuperscript{34} and by raising the prospect of famine by blocking Ukrainian grain shipments via the Black Sea.\textsuperscript{35} But it has also threatened to attack NATO

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\textsuperscript{33} Rob Lee, Moscow’s compellence strategy, Foreign Policy Research Institute Analysis Brief, 18 January 2022. \url{https://www.fpri.org/article/2022/01/moscows-compellence-strategy/}

\textsuperscript{34} On Russia’s weaponisation of oil and gas, see Aura Sabadas, ‘Putin’s energy weapon: Europe must be ready for Russian gas blackmail’, Atlantic Council Ukraine Alert, 8 July 2022. \url{https://www.atlanticcouncil.org/blogs/ukrainealert/putins-energy-weapon-europe-must-be-ready-for-russian-gas-blackmail/}

\textsuperscript{35} Moscow eventually backed down from its grain blockade when it became apparent that it was raising tensions with states in Africa and the Middle East (the main clients for Ukrainian grain) that it was keen to court. See Daniel Baer and Oleksandra Betly, ‘Here’s how to help Ukraine handle Putin’s food blockade’, Foreign Policy, 24 June 2022. \url{https://foreignpolicy.com/2022/06/24/ukraine-russia-war-grain-food-shortage-blockade-exports-hunger-putin-global-africa/}
supplies earmarked for Ukraine’s armed forces, made vague implicit threats about biological warfare, and repeatedly raised the prospect of a radiological ‘accident’ at the Zhaporizhzhia nuclear plant near the city of Kherson, which its forces control. These are all clearly designed to alter the decision-making calculus in European states, following the logic that probing for vulnerabilities is an effective deterrence mechanism, particularly against coalitions of states that can be fragmented.

On the global level, Russian signalling has remained focused on nuclear threats, as well as showing off new dual-capable platforms. This conveys to the United States that Russia is willing to countenance the risk of nuclear escalation and prepared to use the systems that can deliver such weapons. The employment of the new and expensive hypersonic Kinzhal missile against static infrastructure targets in Ukraine is a good example of this. Even though it is essentially an air-launched version of the Iskander short-range ballistic missile, it telegraphs both a technologically advanced conventional capability, and one that could be mated to a nuclear warhead if the conflict escalates.

Russia’s broader invocation of potential nuclear war during the conflict in Ukraine is not a new phenomenon. In fact, it has been a mainstay of Moscow’s efforts to convey displeasure with the West for some time, and is regularly used for both domestic as well as external messaging. In February 2008, Putin promised to target Ukraine with nuclear weapons if the US stationed missile defences there and, during August in the same year, he threatened to use nuclear weapons if Poland hosted the same system. Following Russia’s annexation of Crimea in 2014, Foreign Minister Sergei Lavrov cautioned that Moscow would consider nuclear strikes if Ukraine tried to retake it. And in both December 2018 and February 2019, the Kremlin warned the US that nuclear war remained possible then promised to target the American mainland if it deployed nuclear


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...weapon systems and command-and-control functions, its logistics and its

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inability to perform combined operations.\textsuperscript{44} Reports of widespread corruption in the armed forces, the poor treatment of conscripts and contract soldiers alike,\textsuperscript{45} and an inflexible hierarchy that discourages initiative have all contributed to the image of a Russian conventional military that is barely second-rate, let alone a potential match for NATO forces.

Russian military planners – and Putin himself – have therefore badly miscalculated the ability of their armed forces to win wars quickly. But they have just as badly miscalculated the willingness of Ukrainians to fight. Moscow’s confident expectations of a rapid Ukrainian collapse with Russian invaders being welcomed by the population was a stunning intelligence failure and misreading of Ukrainian politics and society.\textsuperscript{46} These errors have been compounded by the Kremlin’s determination to inflict ‘deterrent damage’ on population centres, which has turned many Ukrainians initially sympathetic to Russia against it, and guarantees a lasting and bitter insurgency for as long as Russian forces remain on Ukrainian territory.

Putin and his advisers have also misread the regional and global political environment, underestimating the strength of international support for Ukraine. The combined efforts of NATO members, other EU states and their allies have seen Russia become one of the most sanctioned nations in the world. And the military aid provided from the US, but also the UK, Poland and other states – including Australia – has helped to overcome shortages of ammunition in the initial months of the war, and has more recently included heavy weapons to help Ukraine conduct counteroffensives. Even in Central Asia, where Russia continues to act as a sub-regional hegemon, there has been dissent. Kazakhstan has referred to the conflict as a ‘war’ rather than the Kremlin-endorsed ‘Special Military Operation’, and has send aid to Kyiv. Of all the states that once made up the USSR, only Belarus supported the Russian invasion in the United Nations.\textsuperscript{47} And last but not least, Putin’s stated objective in launching the war in the first place – a fear of NATO expansion – has been realised by his invasion, with the decision by Finland and Sweden to abandon neutrality and seek membership in the alliance.

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But there are also indications of some strategic deterrence successes. Although seemingly counterintuitive, these may embolden Kremlin military planners in future. To begin with, Moscow’s coercive threats have dissuaded NATO members from intervening directly in hostilities. Of course, there was no requirement for NATO to do so. There is no security guarantee between NATO and Ukraine, unlike the mutual defence agreement encapsulated in Article 5 of the NATO Treaty. Nonetheless, US President Joe Biden’s assurances to Putin prior to the Russian invasion that NATO would not fight for Ukraine will be read in Moscow as successful deterrence, brought about by intimidation and Russian escalation control. As a result, an uneasy modus vivendi has emerged whereby NATO tolerates Russia’s invasion of Ukraine while Russia tolerates NATO and other nations arming Kyiv without direct reprisals.

Another factor which points to the limited success of strategic deterrence is that Russia has at least partially achieved its objective of crippling Ukraine. Moscow’s initial plans clearly encompassed regime change and the conquest of a sizeable proportion of Ukrainian territory. And while its adjusted war aims of establishing a ‘Crimean corridor’ to force Ukraine from the sea (turning it into a landlocked rump state) are unlikely to be realised, the Russian invasion has nonetheless brought Ukraine to the brink of state failure. It has dramatically weakened Ukraine’s industrial capacity, wrecked agricultural lands and caused damage to urban centres that will take decades to rebuild. Given that a future political settlement of the war will likely involve territorial trade-offs and lock in a ‘frozen’ conflict that Moscow would be able to restart in future, Russian strategists could well conclude that employing conventional forces for local compellence remains a useful approach.

In addition to coercion to dissuade the West, and compellence through force against Ukraine, the employment of nonmilitary aspects of Russian power has also been at least partially successful. By threatening to drag the war out over a period of years, Putin is testing the strategic patience of the West at the same time as he applies pressure to its populations via high energy prices and issues repeated threats of nuclear (and ‘accidental’ radiological) escalation. Encouraged and amplified by Russian information operations, significant anti-war movements have sprung up from Prague to London, sourcing their adherents from both

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48 The fact that NATO Secretary General Jens Stotenberg was forced to issue a statement that Biden’s position did not amount to a ‘green light’ for Russia to invade is particularly instructive. See Kanishka Singh, ‘NATO chief says Biden’s remark not a “green light” for invasion’, Reuters, 21 January 2022. https://www.reuters.com/world/europe/nato-chief-says-bidens-remark-not-green-light-russian-invasion-2022-01-20/
the far right and the far left. The estimated 70,000 Czech citizens who rallied in September 2022 to protest against the government’s Ukraine policies were supported by both the anti-immigration Freedom Party, as well as the Communist Party. Russia has also exploited pacifist tendencies in Germany, where six months after Chancellor Olaf Scholz’s ‘Zeitenwende’ (turning point) speech in February 2022 there has been little transformation in Berlin’s military, or in its political appetite for confrontation with Moscow beyond sanctions.

Given this mixed picture, what should Western strategic-policy planners learn from Russia’s theory and practice of ‘strategic deterrence’? While multiple lessons will doubtless be drawn when the conflict with Ukraine eventually subsides, three initial findings are relatively obvious. First, Russia’s botched invasion of Ukraine has revealed a poorly led military that has also been significantly weakened by extensive combat losses, estimated by the Pentagon in August 2022 to be as high as 80,000 personnel killed or wounded. This damages the deterrence credibility of its conventional non-nuclear forces, making Russia increasingly likely to rely on nuclear threats for strategic deterrence functions in the future. Regardless of the outcome of the war in Ukraine, the West must therefore be prepared for increasingly bellicose sabre-rattling by the Kremlin, possibly even including the use of nonstrategic nuclear weapons for demonstration effects.

A second lesson for the West concerns its own deterrence concept. Russia was clearly not deterred from invading Ukraine by the threat of economic sanctions. In fact, it could be argued that the response – from providing diplomatic off-ramps to assurances NATO would not become directly involved in the fighting – actually signalled the very opposite to Putin: it telegraphed conflict avoidance, underscoring Moscow’s perception that Europe and the US were not credible in their attempts to deter an invasion. In the absence of any strategic ambiguity from Washington, Putin’s assumption that the West would either fold under pressure, or remain peripheral players in the conflict was thus not an unreasonable one. Hence the Kremlin’s willingness to absorb significant non-military and military...


52 On Russian combat losses – which will take years to replace, particularly since many have been from elite units such as its Spetsnaz and VDV airborne forces – see Jack Detsch, ‘Russia is readying the zinc coffins again’, Foreign Policy, 8 August 2022. https://foreignpolicy.com/2022/08/08/russia-ukraine-deaths-casualties-rises/
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costs to attain strategic objectives will require important adjustments to the way NATO seeks to deter Russia in future. Here NATO’s commitment at its June 2022 Madrid Summit to pivot to a containment posture and bolster its ready forces from 40,000 to 300,000 personnel is a promising start. Yet it will require significant political will to sustain a firm and united stance in future, which Putin will continue to test.

Third, the West will need to realise that Russia simply views deterrence differently to conventional understandings of the concept, and that the same threats and inducements that would sway Western elites and populations are not guaranteed to be effective when applied to Russia. Whereas the emphasis by Western strategists has been for deterrence to primarily operate as a way to achieve de-escalation on its terms, the Russian strategic deterrence concept is more complex. It contains both dissuasive and coercive elements depending on context and objectives, uses a variety of military and non-military levers, is not temporally bounded around crises, and its emphasis on compellence at local levels seeks to turn strategic deterrence into a framework to advance Russian national interests. To adequately respond to this, there are really only two options. Either NATO will need to adopt a similarly flexible approach, tailoring its deterrence package towards Russia based on its specific vulnerabilities, or it must be absolutely unshakable in developing firm and clearly communicated red lines for containment. Any half measures – as witnessed in the ongoing conflict in Ukraine – are likely to be read in Moscow as little more than weakness.

Conclusions

Russia’s ‘strategic deterrence’ concept is an important and concerning evolution in how states seeking to challenge the established international order might advance their agendas using the range of military and non-military means at their disposal. And while it remains a work in progress, it should not be assumed that Russia’s attempts to put the concept into practice, as it has done in Ukraine, will be doomed to failure. On the contrary, the mixture of coercion, compellence and attempted conquest that ‘strategic deterrence’ facilitates are likely to remain a problem for Western strategic-policy planners for the foreseeable future. At the very least, it will demand a more coherent response than emerging doctrines such as ‘integrated deterrence’, as well as a unity of NATO purpose that Russia’s invasion of Ukraine – albeit paradoxically and somewhat grudgingly – appeared to trigger.

Review essay
Very few men occupy themselves with the higher problems of war. When they arrive at the command of armies they are totally ignorant, and in default of not knowing what should be done, they do what they know.

Marshal Maurice de Saxe, *Mes Rêveries* (1757)

Military theory is the analysis of all aspects of war and involves knowledge of all the structures and components that interact to shape armed conflict both in, and between, societies. As a body of ideas, military theory serves as explanation and guidance for the profession of arms and educates both warfighters and policymakers in the application of force in statecraft.¹ Despite the subject’s significance, writings on military theory by twenty-first century Western uniformed professionals remain sparse. Many military professionals prefer writing about the practicalities of tactics and operations and are content to leave theoretical investigation of war to civilian scholars. The problem with this situation is that it separates theory from practice and leads to an unhealthy dependence by

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the profession of arms on academics and think tank pundits for knowledge of war. Furthermore, since most academics and pundits have never worn military uniform, their musings on war often have the surreal quality of lifelong celibates engaged in meditations on sex.

The number of important works exploring the theory of war by Western military officers is so small that they stand out like oases in a desert. A list of world-class uniformed military theorists since 1945 would include Americans, Rear Admiral Henry Eccles, Rear Admiral JC Wylie, and Colonel John Boyd; the Frenchman, General André Beaufre; and the Briton, General Sir Rupert Smith. Each of these officers, albeit in different ways, sought to probe the anatomy of war across a spectrum of armed conflict using the lens of theory. That Western countries today are still seeking a holistic theory of modern war illustrates a persistent deficiency in the appreciation of military theory by members of the armed forces.

Against this intellectual background, we must welcome the arrival of two new works on military theory by Colonel (now Brigadier General) Geoffrey Weiss of the United States Air Force and Colonel Charles S Oliviero, a retired Canadian Forces armoured cavalry officer. Both Weiss and Oliviero are military theorists concerned with the humanistic, as opposed to the mechanistic, aspects of war. In the wake of the West’s strategic failures in Iraq and Afghanistan, both writers are disturbed at how, in a digital age of fleeting impressions, the importance of military theory plays second fiddle to the allure of technological solutions. The prescriptions offered by Weiss and Oliviero, contain much food for thought in two critical areas – the conceptual foundations of war and the teaching of Joint Professional Military Education (JPME) – both of which need to be reconceived to meet twenty-first century conditions.


The unaccountable contradiction: military theory and the profession of arms in the twenty-first century

The difference between knowing and understanding

Weiss’s *The New Art of War: The Origins, Theory and Future of Conflict* seeks to reinvigorate the study of war by use of military theory. Indeed, in many ways, Weiss’s book attempts to deal with the intellectual crisis identified by the retired American general, David Barno in 2009 to wit: ‘Our [United States] military today is in a sense operating without a concept of war and is searching desperately for the new unified “field theory” of conflict’. Weiss argues that the main theoretical problem in the study of armed conflict in the twenty-first century is a focus on *wars*, not upon *war* as a social phenomenon. He cites American inventor, Charles F Kettering’s view that ‘there is great deal of difference between knowing and understanding’. You can know a lot about something and not really understand it. After 20 years of operations, Western militaries may know war, but what is less certain is their capacity to understand the phenomenon.

The intellectual gap between knowing and understanding is demonstrated by much of the Western military’s aversion to Clausewitz’s theory of war. The result is that in military institutions, theory is often ignored in favour of fads such as ‘Third Wave Warfare’ and ‘Fourth Generation Warfare’. For Weiss, such faddism offers no substitute for a proper study of theory that equips the mind for a serious investigation of war. He argues that only theory can provide the basis for an exploration of war that embraces historical experience, an understanding of present and future warfare trends, and the intellectual potential for control of armed hostilities.

Weiss identifies the contemporary Western military’s theoretical shortcomings in analysing war as threefold. First, there is the ‘knowing and understanding’ paradox that afflicts many military practitioners and policymakers faced with trying to grasp the difference between war’s nature and character. Second, war colleges and defence academies continually shirk the challenge of linking war’s various forms together to develop holistic military theory. Finally, because of the first two theoretical weaknesses, the profession of arms lacks a suitable forecasting methodology to consider the future of war. There are insufficient numbers of multidisciplinary ‘soldier-scholars’ and ‘professor-strategists’ in modern militaries. Weiss is aware of the lack of intellect at work. As he puts it:

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a war theorist must combine the attributes of a detective, historian, philosopher, warrior, and strategist … Theoretical development of this complex phenomenon [war] requires a broad, multidisciplinary, holistic perspective.\(^9\)

In the twenty-first century, such action-intellectuals in uniform, who are equally at home with sword and pen, are a rare breed.

**Towards a unified theory of war**

Preferring the term ‘war theory’ over military theory, Weiss’s book unfolds as an ambitious quest for the Holy Grail of the profession of arms – a unified theory of war.\(^10\) To this end, his work is situated in the history of military theory, ranging from the works of from Sun Tzu, Machiavelli and Carl von Clausewitz through Alfred Thayer Mahan and Julian Corbett to Basil Liddell Hart. Weiss defines war as ‘a uniquely human phenomenon, a rational activity characterized by violent conflict between opposing forces intended to alter or preserve the status quo’.\(^11\) He argues that since war is a human activity its ‘True Trinity’ is that of ‘humanity, combative violence and political outcome’.\(^12\) Despite his play on Clausewitz’s hallowed and paradoxical trinity of ‘people, army and government’, Weiss is no deviationist from the Prussian master. He embraces Clausewitz’s dialectical philosophy, citing the Prussian’s view that ‘war consists of a continuous interaction of opposites’ that coalesce in nonlinear fashion to form a natural whole.\(^13\)

In Clausewitzian spirit, Weiss proposes the existence of 20 universal dialectics that interact to shape war’s nature. They are order–chaos; past–future; life–death; creation–destruction; friend–enemy; good–evil; science–art; defence–attack; unlimited–limited; viscous–inviscous; physical–moral; direct–indirect; certainty–uncertainty; simplicity–complexity; reason–emotion; prudence–boldness; control–autonomy; concentration–dispersal; and rest–movement.\(^14\) Weiss is emphatic that these dialectics are fundamental to any attempt to develop a unified theory of war. Dialectics help define the difference between the constancy of war’s nature and the variability of its character. Without this vital distinction, it is impossible to grasp the paradoxical admixture of continuity and change.

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that occurs in any war. For Weiss, ‘the nature of war is everything about war that is unchanging, and its character is everything that remains’. In a theatrical metaphor, Weiss writes, ‘ultimately, war’s nature is like a stage and its character like the play. The lines, scenes and costumes may change and the actors come and go, but the stage remains, the immovable foundation for the entire drama’.

Having delineated the difference between war’s nature and character, Weiss proceeds to analyse war as a social phenomenon. He views war as an ‘open system’ characterised by the interplay of reciprocity and variables that occur across environmental domains. ‘War’, he explains, ‘is a complex system of complex systems with the added dimension of human psychology’. He draws on chaos theory’s ‘fractal’ geometry to outline how a pattern within a complex system reoccurs because the degree of irregularity remains constant despite changes in scale. The author notes that Clausewitz’s ‘war as a duel’ metaphor captures war’s fractal nature at the macro-level because ‘a picture of it [war] as a whole can be formed by imagining a pair of [Clausewitz’s] wrestlers’ grappling with each other for supremacy.

Weiss goes on to describe what he calls the ‘engine of war’ in which physical and psychic elements combine in the form of apparatus, (capacity), fuel (will) and ignition (cause). A protagonist wins in a war by breaking the opponent’s engine of capacity or by draining his fuel of will. The author proposes a will-capacity model that is an amalgam of military leadership, training, morale, motivation, education and experience. Weiss attempts to conceptualise a ‘unified theory of war’ by reconciling its main dialectic of regular–irregular conflict. He acknowledges the intellectual challenge of conceiving of unified military theory in the face of a theoretical lexicon of terms that are imprecise. War embraces a smorgasbord of ideas ranging from total, general, limited, unlimited, nuclear, conventional, regular and irregular, and hybrid forms of war – some of which either lack clear definition or are even contradictory.

These difficulties notwithstanding, Weiss suggests that a unified theory of war is possible if we conceive of war as a totality in which all its various forms are

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17 Weiss, The New Art of War, pp 221–222.
19 Weiss, The New Art of War, 214–215; Clausewitz, On War, p 75.
20 Weiss, The New Art of War, p 223.
interconnected in status. War represents ‘a continuum like an Arthurian round table [at which] all forms have equal stature befitting their kinship’. The solution for ‘unifying’ the regular–irregular dialectic within a general theory of war, is to identify war’s ‘underlying property’ and its drivers. Seen in terms of an ‘open system’, all of war’s forms are analogous to the state of a physical substance and are related, even if the forms appear differently. Weiss identifies the underlying property of war in the context of fluid dynamics rather than Newtonian physics. War, he suggests, is a complex ‘continuum of forms’ but is a phenomenon with a measurable macroscopic property which he identifies as viscosity – the tendency of a fluid to have cohesive consistency and to resist flow due to molecular attraction. For example, water, ice and steam are all valid forms of H₂O but they appear in different guises. War is similar, and its forms can represent analogues of different force states, akin to water, ice and steam.

As the fundamental underlying property of war, viscosity transcends regular–irregular dichotomies because it serves as ‘a function of a force’s directness, acceleration, restriction, cohesion and concentration’ (identified as DARCC elements). There are only two ‘force states’ that define war: viscous and inviscous, and they are relative to one another. The elements in Weiss’s unified theory of war alternate not between separate regular–irregular categories but between higher (viscous) and lower (inviscous) states of military capacity in a fluid continuum of war. The capacity of any force is significant only in relation to its adversary. ‘According to the principle of relative viscosity’, writes Weiss, ‘the viscosity of forces relative to each other is all that matters in combat’. The principle of ‘relative viscosity’ is responsible for driving different forms of armed conflict through DARCC elements. Traditionally, viscous forces – from the Greek phalanxes through the Roman legions to the mass armies of the two World Wars – have low acceleration but high cohesion and concentration. In contrast, inviscous forces – from Parthian archers through Mongol horsemen to Mao’s Chinese guerrillas – have relatively high acceleration but low cohesion and concentration.

Viscosity, like war, is fractal – that is, its patterns replicate at all scales and levels – and thereby facilitates a unification of armed conflict in terms of fluid dynamics. War’s different forms are fluidic analogues and war, writ large, represents ‘a

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27 Weiss, The New Art of War, pp 305; 254–255.
continuum of forms characterized by the viscosity of opposing forces’. Viscous forces may appear in deep formation but are often immobile, like a pools of water; in contrast, inviscous forces are stream-like and possess more fluidity of force-state in a manner that resembles Liddell Hart’s description of indirect strategy as being like ‘globules of quicksilver’.

Inviscous forces flow like water around the viscous force’s hammer. As Weiss notes, over time, water erodes metal: ‘A hammer shatters ice, but liquid water yields while causing the hammer to rust and weaken’. The fractal viscosities of relative forces create combat capacity in war as well as defining attack and defence in war.

Viscous and inviscous states of relative capacity help us to evaluate four types of combat. First, viscous on viscous (V-V), as in German military historian, Hans Delbrück’s Niederwerfungsstrategie, (encounter battle). Second, viscous on inviscous (V-I) engagements that occur in asymmetric struggles, from Napoleon in Spain to Western forces fighting the Taliban in Afghanistan. In asymmetric struggles, an inviscous force follows Delbrück’s alternate strategy of Ermattungsstrategie (exhaustion). Third, there are inviscous on inviscous (I-I) struggles that may occur in long-running civil wars such as those of Congo or Sudan. Finally, there is hybrid warfare (H-I/V/H) which occurs when at least one side employs overlapping viscous and inviscous forces. Weiss is careful to define a hybrid force as one that ‘deliberately mixes viscous and inviscous units, like composite material, to harness the strengths inherent in both states’. Collaboration of war’s forms in this manner can create strategic complementarity, as occurred between the guerrillas of the Swamp Fox, Francis Marion, and George Washington’s line army in the American War of Independence.

The relative viscosity that drives the shape of war’s forms can best be visualised by a ‘war-viscosity algorithm’ (W-V-A) based on will, context and relative capacity. A combination of will, context and relative capacity creates a fluidity that permits ‘viscosity transitions’. Weiss notes that in 2006, the Israeli Defence Force fielded a viscous force against Hezbollah’s hybrid forces, which seemed to be inviscous but, as the war proceeded, took on a viscous form.

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29 Weiss, The New Art of War.
31 Weiss, The New Art of War, p 256.
34 Weiss, The New Art of War, p 273; p 276.
35 Weiss, The New Art of War, p 278.
argues that viewing war as a reflection of the trinity of humanity, politics and combat permits the identification of viscosity and with this, a unification of war’s forms. ‘The UWT [unified theory of war]’, he argues’, represents a balanced inclusive perspective on war’s 20 dialectics and war theory’s great intellectual traditions’.36 Not everyone will accept Weiss’s fluidic logic on a unified theory of war – perhaps preferring Clausewitz’s comparison with a ‘game of cards’ – but the American’s research and insight are impressive, and his conclusions deserve serious thought.37

**Forecasting future war and the challenge of Chinese military theory**

In examining the challenge of forecasting future war, Weiss argues that a lack of theoretical skill can only create strategic myopia. He quotes Clausewitz on the qualities required for foresight in thinking about war:

> If the mind is to emerge unscathed from this relentless struggle with the unforeseen, two qualities are indispensable: first, an intellect that, even in the darkest hour, retains some glimmerings of the inner light which leads to truth; and second, the courage to follow the faint light wherever it may lead.38

Western militaries often lack the theoretical sophistication for such ‘a relentless struggle with the unforeseen’ and default to routines or a raft of speculations that lack intellectual rigour. What theory offers is war’s unchanging nature as the foundation stone for grappling with its changing characteristics. The distinction between war’s nature and character is the essential starting point in military foresight analysis. Understanding war’s fundamental property of viscosity enables us to appreciate the variables of armed conflict in a manner that is conceptually superior to current military theory with its alphabet soup of terminology that confuses more than it enlightens.39

It is important to note that while to current Western thinking Weiss’s conception of war having fluidic characteristics may be unfamiliar, it is not to Eastern theories on war. As the ancient Chinese philosopher, Lao Tzu writes, ‘nothing is weaker than water, but when it attacks something hard, or resistant, then nothing

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37 Clausewitz, *On War*, p 86.
withstands it, and nothing will alter its way'. A fluidic analogue has long been a feature of Sinic military theory with a water metaphor appearing in the works of Chinese strategic theorists from Sun Tzu to Mao Zedong. In particular, the studies of the French Sinologist, François Jullien, on the differences between Chinese and Western conceptions of war and strategy highlight principles of fluidity and the interconnection of forms. For example, Jullien notes that in Chinese military thinking there is a focus on propensity and efficacy that resembles harnessing the fluid interconnection of events in a manner akin to a wave of water striking a wall. In Chinese military theory, a strategist may ‘intervene upstream to influence events downstream’ but does so seeking a mastery of disposition, that is, supreme in the knowledge that ‘water always erodes earth’. As Jullien observes, the mechanistic approach to Western strategy based on ‘transcendence of action’ (ends, ways and means) is subordinate in Chinese military theory to a manipulative idea of stratagem based on ‘the immanence of transformation’ (conditions, calculations, consequences).

Weiss does not mention Jullien’s important comparative East–West theoretical work on war and strategy and this omission is a weakness in refining his own unified theory of war. Nonetheless, Weiss’s emphasis on war as a ‘fluidic metaphor’ may assist in any future research seeking a convergence of Western and Eastern military theory. An investigation of the notion of viscosity in Sinic military tradition is called for because such an endeavour may help reinforce or redevelop a ‘unified theory of war’ in a manner that transcends different strategic cultures. If Weiss’s unified theory of war based on fluid mechanics and viscosity transitions helps us to better understand not just ourselves, but also the Chinese military, then this important work will advance the case for far more emphasis on the theory of war in both military research and in Western JPME programs.


A JPME that ‘sees the whole elephant’

An emphasis on the theoretical weaknesses of modern JPME dominate Canadian, Colonel Charles S Oliviero’s book, Strategia: A Primer on Theory and Strategy for Students of War, aimed at improving the knowledge of both twenty-first century military professionals and civilian national security officials. Strategia is a higher-level companion book to Oliviero’s 2021 study, Praxis Tacticum, a well-received guide on tactical theory for junior officers and non-commissioned personnel. Like Weiss, Oliviero believes in a humanistic as opposed to a mechanistic view of war. He is disturbed by the lack of professional interest in military theory and the importance of understanding the differences between the nature and character of war. Today’s Western leaders and their advisers are innocent of any understanding of demands of war. Indeed, Oliviero believes we may have reached the fragmented social order foreseen by military historian, Peter Paret in 1966, in which there is:

- an insufficiently educated public; a failure among too many political and military leaders fully to recognise the political nature of war; and
- [from] the friction between violence and control that is a permanent characteristic of all armed conflict.

Unlike Weiss, however, the Canadian is less interested in the quest for a unified theory of war than he is in theory’s role in providing a solid framework for improved rigour in JPME.

Oliviero’s primer is a readable tome and a timely publication in that it follows a contentious debate in both the United States and Britain on the efficacy of JPME in the new millennium. The debate is a product of the 2018 US National Defense Strategy, which claimed American JPME had ‘stagnated’ due to ‘a focus on the accomplishment of mandatory credit at the expense of lethality and ingenuity’. Oliviero compares the decline of knowledge about war to the proverbial investigation in the poem by John Godfrey Saxe, The Blind Men and the Elephant. Each man approaching a different part of the same creature and

46 Oliviero, Strategia, pp 5–17.
coming away with different conclusions – ranging from tree-trunk, snake, rope, wall, spear and fan – but none ever identifying the elephant. To know war, the profession of arms must understand the whole, and ‘see the elephant’. Yet ‘the six blind men of Indostan’ continue to proliferate in Western JPME colleges because most command and staff colleges are obsessed with educational process and concentrate on what military educator, Williamson Murray calls ‘peacetime efficiency not wartime effectiveness’.49

At the same time, what passes for military theory in JPME has migrated out of the military profession into the academic world of social science. ‘It has been my experience’, writes Oliviero dryly:

that most military professionals are not appropriately conversant in Military Theory [sic], nor can they draw a distinction between military philosophers, military theorists, and military strategists. This deficiency in their professional education stems from ignorance.50

In being dismissive of the theoretical aspects of their chosen profession, many officers risk becoming a modern version of Frederick the Great’s famous campaign mule. In 1758, the Prussian monarch observed that, a mentally indolent officer was like a mule who had served in ten campaigns under Prince Eugene. In situations where an officer’s military experience was unmatched by any intellectual development, an individual would be a mule forever. Clearly, for Oliviero, there are too many mules in today’s Western officer corps.51

While experience matters greatly in war, true military competence requires a continuous study of military affairs by officers to avoid a breach between field experience and theoretical understanding. Much of Western military thinking on war today is a form of faddism in which ideas pour out as ‘pure fantasy wrapped in authoritative language’. Military thinking on war lacks the syncretic process of disciplined mental evaluation that ensues from an educated understanding of theory.52 The author blames weak military theory on the inadequacies of JPME curricula in today’s Western military colleges. He notes that, while the German Bundeswehr teaches only Clausewitz, the Canadian, the British and Australian command and staff colleges content themselves with either no theory, or glance

50 Oliviero, Strategia, p 6.
51 Oliviero, Strategia, p 2. The author attributes the mule analogy to Marshal Saxe but most historians attribute the saying to Frederick the Great.
52 Oliviero, Strategia, p 2.
at ‘a grocery list of major theorists’. While twenty-first century military officers are now more highly educated than ever before, much of it is not professionally relevant and, still less, applied knowledge of war. When business administration takes precedence over what Oliviero calls ‘war-centred Military Theory’, then, the profession of arms is in a death spiral of intellectual decay. The result of a pursuit of non-military degrees is that many officers are ‘only thinly educated in their own vocation and lack the depth of understanding required to serve their profession of arms well’.  

The educational deficiencies of the West’s military officer corps reflect a general loss of historical knowledge by parent societies. A growing ignorance of the past is manifested by a tendency in Western military establishments to use sweeping generalisations and simplistic explanations about war that reflect not historical data, but marketing methods with acronyms replacing analysis. Oliviero is merciless in his critique of what he regards as the ‘intellectual sloth’ dominating the contemporary Western military profession. He writes:

Most Western military officers, sometimes quite senior, have lived their entire careers in ignorance of the intellectual underpinnings of their profession. Habitually, and often disdainfully, they have consigned the study of their vocation to academics, thereby improperly relegating themselves to their profession’s sidelines. I would go so far as to say that there has been a longstanding tension between soldiers and academics. My personal experience has been that most officers think of theory the way Herman Göring thought of culture. Göring reputedly said that when he heard the word culture, he released the safety on his Browning pistol. Such behaviour is foolhardy at best and dangerous at worst.

It is the professional responsibility of the armed forces colleges to study war and not to solely rely on investigations by civilian scholars in university departments. ‘Even cursory research’, Oliviero suggests, ‘demonstrates that sociologists, anthropologists, and psychologists have hijacked modern Military Theory [sic]’. The proper status for Western JPME is not that of a partnership between ‘the pure and the applied’ in the form of a university and a staff college. A proper partnership reflects the ‘applied and the applied’ because a military college

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53 Oliviero, Strategia, p 6.
54 Oliviero, Strategia, p 192.
55 Oliviero, Strategia, p 16.
56 Oliviero, Strategia, p 9.
57 Oliviero, Strategia, p 19.
should ideally be designed to be the equivalent of the professional schools of law, medicine and divinity.\textsuperscript{58}

Oliviero points out what should be obvious to any officer involved in JPME: Military theory is to war what jurisprudence is to the law. Just as lawyers, judges and legal scholars appreciate that knowledge of jurisprudence is key to the practice of law, so in war, does a foundation in military theory help uniformed professionals to achieve superior practice in the field.\textsuperscript{59} This comparison highlights one of the main weaknesses of the military profession namely, the lack of constant practice in war. Just as the courtroom and the surgical operating theatre serve to audit law and medicine, so too, does war audit the military profession. Yet, while other professions can weed out the unsuitable or incompetent practitioners at early stages of their careers through observation of continuous performance, the military often only finds out who its best wartime practitioners are in the furnace of combat.

Because war is a contingent rather than a constant activity, the armed forces are, in turn, different from both the professional schools of law, medicine and divinity. The military’s challenges are unique because lack of practice means that it is difficult to identify the best combat officers in times of peace, and this deficiency may be paid in human lives. Lack of practice also leads to a predominance of officers who will fail in combat because as Marshal Saxe reminds us, ‘in default of not knowing what should be done, they do what they know’ rather than ‘know what to do’. Oliviero’s concern with restoring military theory to prominence is a commendable attempt to overcome this theory–practice dilemma by advocating the creation of a more knowledgeable and skillful officer corps during peacetime.

Oliviero goes on to consider how the abdication by many Western military professionals of the study of war has helped to create a shallow understanding of the relationship between philosophy, theory, strategy and policy.\textsuperscript{60} He argues for an intellectual understanding of war via a pyramid of military theory in which ‘philosophy is the foundation of theory; theory is the foundation of policy; policy is the foundation of strategy; strategy is the basis of tactics’.\textsuperscript{61} Like Weiss, Oliviero sees these elements as phenomena that interact. He identifies what he calls ‘The Complex Matrix of Military Theory’ that embodies both the differences and the processes of interconnectivity between philosophies, theories, policies and

\textsuperscript{58} Oliviero, Strategia, pp 2–3.
\textsuperscript{59} Oliviero, Strategia, pp 2–3.
\textsuperscript{60} Oliviero, Strategia, ch 2–3, passim.
\textsuperscript{61} Oliviero, Strategia, pp 12–33; pp 187–198.
strategies, tactics, doctrine, war and warfare. This ‘Complex Matrix of Military Theory’ is both a taxonomy for classifications and an ontology in the form of a collection of relationships necessary to investigate war. The military theorist builds their ideas upon those of the philosopher, while the strategist builds their ideas on those of the theorist, creating a linkage that extends from Maurice de Saxe through Raimondo Montecucolli and Henry Lloyd to Carl von Clausewitz.

Oliviero’s primer is both concise and precise. In 200 pages it covers the nature of war, the utility of theory, the art of war in environmental domains, the principles of war, military theory and social history, and future war. A military student will find much to ponder in the chapters that discuss theorists of land, air and sea warfare and examine the future of armed conflict. Mahan, Corbett, Richmond, Douhet, Trenchard and Boyd all receive critical analysis. The author is emphatic that, despite all the fascination with machine intelligence and cyberwar, in the conflicts of the future ‘electrons will not replace blood’ – simply because war is a human activity with an immutable nature. The Canadian writer is unafraid to tackle innovative thinking and suggests that there might be profit in acknowledging the existence of a ‘fourth level or non-physical level of war’ – the ‘theoretical level of war’ – in which the military thinker contemplates the reality of war in the much same manner of the Allegory of the Cave in Plato’s Republic. The sight of flickering shadows cast upon the cave wall are mere representations of reality but for the inhabitants, the shadows are reality. We must seek to act like philosophers freed from the cave and look to the fourth, theoretical level of war to seek a deeper understanding of war’s immutable nature.

**Conclusion**

Weiss and Oliviero remind us of the intellectual rigour required for the study of war, a rigour that should belong primarily to the profession of arms. Sadly, this intellectual activity is frequently neglected in favour of garrison-style routines that are irrelevant in wartime. Theory is too often the victim of Göring’s infamous pistol or, it is outsourced by the armed forces to a cohort of academics and pundits, most of whom are divorced from military practice. The content of both The New Art of War and Strategia convey a modern echo of the perplexity expressed by Welsh military theorist and European soldier, General Henry Lloyd in 1766:

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62 Oliviero, Strategia, pp 33–35; p 54;  
63 Oliviero, Strategia, pp 1415; p 187; p 204.  
64 Oliviero, Strategia, ch 4–6 and ch 8.  
65 Oliviero, Strategia, pp 175–178.  
It is universally agreed upon, that no art or science is more difficult, than that of war; yet by an unaccountable contradiction of the human mind, those who embrace this profession take little or no pains to study it. They seem to think, that a few insignificant and useless trifles constitutes a great officer.\textsuperscript{67}

A true understanding of war requires an immersion in military theory if there is to be any ordering of reality. As Weiss notes, even if war defies linear logic with its dialectics, paradoxes and unpredictability, only theory serves to clarify its forms. For the American, theoretical understanding of war permits a unified perspective through employing a nonlinear analysis of fluid dynamics that reveals the master property of viscosity. Similarly, Oliviero concludes that we require the categories of a ‘Complex Matrix of Military Theory’ with its components of philosophy, theory and strategy to make sense of the chameleon of war as it occurs in the real world.

Both of these studies of military theory are important books for serious military professionals to read and debate and will be valuable additions to any personal library. Like most military theorists before them, in seeking to master a better understanding of war, the authors raise as many questions as they answer. Weiss tackles the demanding task of developing unified military theory; Oliviero ponders the challenge of reclaiming uniformed ownership of the theoretical corpus of the military profession and posits the notion of a fourth, ‘theoretical level of war’.

In the wake of 20 years of German Wehrmacht-style ‘lost victories’ in Afghanistan and, in the face of Russian aggression in Ukraine and Chinese strategic ambitions in the Indo-Pacific, a renewed focus on how to theorise about the conduct of war is a vital necessity for Western statecraft. We can only hope the works of Weiss and Oliviero represent the beginning of a corrective trend in the 2020s by uniformed professionals to try to resolve Henry Lloyd’s ‘unaccountable contradiction’ of the professional neglect of the higher theory of war. The stakes could not be higher. If Western armed forces establishments refuse to take up the intellectual challenge of developing military theory in both their colleges and in their thinking on the future of armed conflict, then, the task will fall to those who are less qualified and experienced. If the latter situation prevails then we will have embarked on the lonely road towards military downfall. As the German poet, Heinrich Heine once wrote, in the ashes of defeat in war, ‘the vanquished are the first to learn what history holds in store’.\textsuperscript{68}


Reviews
For both international readers and Australians, this is arguably a unique book. For international readers, the book examines what the impact of today’s accelerating knowledge explosion and rapid technological change means specifically for military institutions. This book talks about military revolutions, as many do, but uniquely takes a people-centred approach. In so doing, it becomes of considerable value. For Australians, the book is unique given retired Australian Defence Force (ADF) star-ranked officers do not write books about the military profession and its future; sometimes historical works, but not books about tomorrow and its implications. This is a welcome new development.

*War Transformed* is written by retired Major General Mick Ryan, previously Commander Australian Defence College and with wide-ranging responsibilities for ADF officer education. This experience has given him many diverse insights that inform and shape his argument. Perhaps not surprisingly, the author considers the ‘primary audience for this book is current and future military leaders’.  However, the book’s ostensible focus on ‘military leaders’ turns out to be more apparent than real. This may be to the book’s benefit as, in the modern era, the phrase might need some reconsideration, as discussed later.

The book has four chapters with an implied subdivision into two major sections. The first section sets the stage and bounds the arguments later developed. Chapter 1 looks at earlier periods of large-scale societal and technological transformation and their impact on making war. Chapter 2 then takes this into the future by examining the key trends evident today that seem likely to shape twenty-first century warfare.

The book’s second section is where the author’s arguments are fully

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developed with a major theme being adaptability. Chapter 3 takes the key trends discerned and discusses in some detail their consequences for military institutions. Chapter 4 takes this further, delving down into the personnel aspects of those who both command and are products of these military institutions. The book concludes with ‘a plan of action’ for how institutions and the people within them might change to become match-fit for future conflicts.

In considering military institutions, the book first starts by asking, ‘What are they for?’ The author contends the answer lies in their being effective in the contemporary strategic circumstances. For any particular military institution, its effectiveness should then be assessed at the strategic, operational and tactical levels of war, in accord with Millett and Murray’s framework in *Military Innovation in the Interwar Period*. Ryan, however, takes this further and argues for a fourth element, which he sees as vital: ‘This is the capacity to change quickly and remain effective in a rapidly changing geopolitical and technological environment.’

Adaptability is often promoted but seems used by many simply as a buzzword. *War Transformed* goes much deeper in setting out and explaining the key characteristics a modern, adaptable military institution needs. These are:

- gaining and maintaining a comprehensive awareness of the environment within which the military institution exists and wants to succeed; such awareness involves horizon-scanning across many issues including geopolitics, national policy, population matters, technologies and systemic interrelationships
- developing an understanding of what will succeed in this environment, from the tactical to the strategic level, and then testing and validating this assessment
- introducing changes across the various levels of the institution based on this understanding and associated notions of fitness, and then learning from those changes
- continually learning, devising, sharing and imparting knowledge across the institution and to its constituent individuals
- continually assessing the institution’s successes and failures as it interacts with the external environment and then using these to inform changes to institutional and individual-level actions, objectives and notions of suitability.

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The Australian defence organisation could possibly consider adopting such a pathway given recent experiences. For example, the 2016 Defence White Paper was retrospectively considered by the 2020 Strategic Update to have incorrectly assessed the future strategic environment. This failure has necessitated significant modifications to the ADF’s planned force structure, including a major project cancellation and moving to acquire nuclear submarines with long-term, flow-on effects across the whole force. Moreover, force posture is now being deeply reconsidered in light of the 2016 misstep. Arguably, Australian defence thinkers in 2016 did not have either the level of comprehensive awareness of the environment required or an understanding of what was necessary for success. The defence organisation at the time lacked some of the key characteristics of a modern, adaptable military institution that this book identifies.

Intriguingly, the author also advances the view that steps should be taken to foil a potential adversary’s ability to adapt to changing circumstances. This five step ‘counteradaptation’ process aims to enhance the adaptation capabilities of friendly forces relative to the adversary. This is an area others may wish to take further.

Moving beyond being structured for adaptation, Ryan argues military institutions should also pay close attention to developing an intellectual edge. In this, there are two major aspects. The first is excellence at the individual level, which requires personal dedication, continuous self-learning and adequate access to a diverse range of training, education and experience. The second is at the institutional level, which requires organisations taking a systemic approach to foster and support individual excellence across the force. In this, the author sees strategic design as an important first step in building a ‘strategic learning ecosystem’.

Constructing such a design involves defining and understanding the nature of the challenge of sustaining an intellectual edge in a time of continuing change. The author considers that an organisational vision might be the key. He approvingly quotes a RAND study: ‘A vision provides the essential intellectual foundations for interpreting the past, deciding what to do in the present, and facing the future.’

This raises questions over what an intellectual edge is. Ryan considers at the individual level it is being able
to ‘creatively out-think and out-plan potential adversaries’.  

Such a view gives determining an intellectual edge a relative quality that using an organisational vision as a framework to analyse problems might not have. Moreover, an organisational vision and out-thinking an adversary could be two different matters and possibly at odds. Organisations, for example, often prize teamwork, which may require a degree of conformity and compromise that constrains creativity and critical thinking. War Transformed is strong on the institutional aspects of an intellectual edge but raises new questions about how to conceptually define what such an edge might be.

This brings us back to the matter of whether the ‘primary audience for this book is...future military leaders’. The book notes leadership numerous times, although without digging deeply into what this means in a transformation of war sense. The author usefully defines leadership as ‘the art of influencing and directing people to achieve organizational goals’.  

Many will agree, but the ability to influence and direct people is not the same as creatively out-thinking and out-planning potential adversaries. A person with great charisma does not necessarily give a military force the intellectual edge to succeed.

Clausewitz famously suggested military leaders simply needed to be geniuses to succeed. But these can be in short supply when needed, and the twenty-first century battlespace may demand more than even a Napoleon can bring. Compared to earlier times, the modern battlespace is very large, multidomain and involves a wide range of different skills. Anthony King, in Command: The Twenty-First-Century General, analysed command across the last 100 years and determined it had become more professional, collaborative and collective.

There is a tension between the traditional view of the omniscient, charismatic leader, which many military institutions still draw on, and the direction the book argues these institutions are evolving towards. War Transformed does not explore this tension or directly address the matter of leaders and leadership in the twenty-first century. However, the author does express some disappointment with today’s incumbents, observing: ‘many instances where military leaders, particularly at more senior levels … have eschewed the serious and necessary dedication to ongoing

5 Ryan, War Transformed, p 172.
6 Ryan, War Transformed, p 141.
learning about war and about their profession”. 8

War Transformed is a valuable and unique contribution from an author with considerable experience, who has devoted much thought to the topic. The book is wide-ranging, insightful and a most stimulating read. Military professionals, academics and laypersons will find much of interest to think about and reflect on in Mick Ryan’s well-researched, important work.

8 Ryan, War Transformed, p 12.
Mars adapting: military change during war

Frank G Hoffman

Naval Institute Press, 2021

Reviewed by Chris Field

What makes one military organisation more adaptive than another?¹ This is the question Frank Hoffman asks in his latest book, Mars Adapting: Military Change During War, which considers what organisational adjustment, adaptation and innovation at war from 1942 to 2007 meant for the United States Navy, Air Force, Army and Marines.² His book explores a common national dilemma: ‘we may go to war with the force that we have, but we do not necessarily win with that force’.³

Author Williamson Murray assessed that ‘military institutions have proven resistant to change throughout the twentieth century even during times of conflict; and more often than not they have paid for adaptation in the blood of their maimed and dead rather than through the exercise of their minds and mental agility’.⁴

Answering Murray’s assessment, Hoffman employs Theo Farrell’s thesis that three elements of change in war – adjustment, adaptation and innovation – are interconnected, and together, they form a wartime military change continuum.⁵ He then expands Farrell’s thesis, arguing that these three elements develop as iterative, interdependent and mutually reinforcing systems.

Hoffman,⁶ a retired United States Marine Corps lieutenant colonel, is an award-winning author and national security affairs analyst with more than 30 years of policy and operational experience. He holds degrees from the Wharton Business School,

¹ Frank G Hoffman, Mars Adapting: Military Change During War, Naval Institute Press, Annapolis, Maryland, 2021, p 16.
² Hoffman, Mars Adapting, p 13.
³ Hoffman, Mars Adapting, p 2.
⁵ Frans Farrell, PB Osinga, and James Russell (eds), Military Adaptation in Afghanistan, Stanford University Press, Stanford, 2013, p 2.
George Mason University and the US Naval War College.

In *Mars Adapting*, Hoffman seeks to answer questions on adaptation during war, including how organisations harness or overcome organisational characteristics, attributes, internal issues, external factors, decision-making and bureaucratic complacency.\(^7\)

**Adjustment, adaptation and innovation**

War, inevitably, audits the effectiveness of military institutions.\(^8\) A military’s ability to rapidly change at war, ‘may be a strategic necessity, not just a source of relative tactical advantage’.\(^9\) Hoffman argues that adjustment, adaptation and innovation – which are iterative, interdependent and mutually reinforcing change systems – are fundamental to our national competitive advantage.

Together these change capabilities, enhance, enable and empower a military organisation at war through:

- war’s nature – as a violent, interactive and reciprocal relationship between competitive adversaries with capabilities and capacity for battlefield, campaign and strategic learning and decision-making\(^10\)
- recognising changes in the ever-evolving character of war, influenced by leadership, policy, geography, climate, technology and unanticipated enemy actions\(^11\)
- ambiguous, chaotic and confused environments, where it is difficult to comprehensively assess own force capabilities (including personnel, material, and technological limitations) while fighting violent, thinking enemies
- competing cycles of learning, reaction and counteraction, with the side reacting more effectively, at speed, increasing their chances of success\(^12\)
- understanding that ‘military and organisational change is not unidirectional’, but stems from ‘interactive processes, in which external shifts and pressures from the state, society and the battlefield, are integrated, interconnected, and reworked with unique internal cultural and structural patterns of military organisations’.\(^13\)

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The ‘ability to challenge norms, assumptions, methods and structures in the face of severe stress is often a fundamental part of success in combat’.\textsuperscript{14} Examining how these challenges occur, Hoffman employs Theo Farrell’s thesis that adjustment, adaptation and innovation are interconnected, and together they form a wartime military change continuum.\textsuperscript{15} This continuum includes:adjustments (switching between current competencies as corrective reforms); adaptation (learned changes to existing competencies and capability); and innovation (new organisational competencies, doctrine and tasks). Employing this wartime military change continuum, Hoffman examines four case studies ‘involving extensive campaigns, over several years, with multiple cycles of action and counteraction’.\textsuperscript{17} In each case study, ‘the military force entered the war with existing capabilities and a mental model of the kind of war and enemy they expected to fight’.\textsuperscript{18}

The four case studies provide ‘opportunities to examine military change [at war] in doctrine, organisation and technology’, and provide interesting insights relevant to contemporary Australian Defence Force (ADF) service.\textsuperscript{19} The case studies, with their top five adjustments, adaptations and innovations are listed below.

\textbf{Case study 1: US Navy adaptation in undersea warfare in the Second World War, 1942–1944}

\begin{itemize}
\item Submarines were integrated into the conflict’s maritime campaigns.\textsuperscript{20}
\item Command relationships were revised, including coordinating submarine fleets based in Hawaii and on both Australian coasts.\textsuperscript{21}
\item Combat leaders were transformed into purposeful, aggressive ‘hunters’ instead of silent ‘hiders’,\textsuperscript{22} which meant 30 per cent of US submarine commanders were relieved for cause in 1942, as ‘products of an unrealistic peacetime operations and training system’.\textsuperscript{23}
\end{itemize}

\begin{footnotesize}
15 Farrell, Osinga and Russell (eds), \textit{Military Adaptation in Afghanistan}, p 2.
21 Hoffman, \textit{Mars Adapting}, p 70.
\end{footnotesize}
• Torpedo lethality was enhanced.\textsuperscript{24}

• Submarines were used to execute coordinated, collective actions (for example, Wolfpack attack groups).\textsuperscript{25}

**Case study 2: US Air Force**

**multiple adaptations in the Korean War, 1950–1953**

• Between 25 June 1950 and 27 July 1953, ‘widely different missions with widely different priorities’ were executed, including close air support, air superiority, interdiction and bombing.\textsuperscript{26}

• Lessons for close air support were re-learned, where: ‘what was remembered from World War II was not written down, or if written down was not disseminated, or if disseminated was not read or understood’.\textsuperscript{27}

• Close air support squadrons were reconverted from the F-80 Shooting Star jet fighter, to the ‘rugged and combat proven F-51 Mustang, propeller-driven aircraft’.\textsuperscript{28}

• Radar gunsights for the F-86 Sabre were acquired, enabling air superiority that ‘turned the tide of the air war in Korea’.\textsuperscript{29}

• The ‘interrelationship between effective bombing and air superiority’ combined with the Shoran (SHOrt RAnge Navigation) beacon system was recognised.\textsuperscript{30}

\begin{itemize}
  \item Hoffman, *Mars Adapting*, pp 76–84.
\end{itemize}

- The US Army’s predisposition in Vietnam to ‘fight a conventional enemy…with conventional tactics’ meant it failed to adjust, adapt and innovate. This failure ‘overpowered innovative ideas from within [and outside] the US Army and prevented effective learning, with ‘grave implications for both the US Army and the United States’.  

- ‘Technological progress in helicopter design and engine power’ were combined ‘with new fighting tactics and creative organisational arrangements’ in the air assault concept.

- Rapid adjustment techniques for artillery; refined fire support communications systems; precise AC-47 Spooky gunship firepower; expedient landing-zone development; protected ‘Rome Plow’ jungle-clearing tractors; accelerated ‘road-runner’ convoy tactics; and independent long-range reconnaissance patrols were implemented from September 1965 to June 1966.  

- In May 1967, the Civil Operations and Rural Development Support program (CORDS) was established through National Security Action Memorandum 362.  

- Tactical water mobility for a US Army brigade in the Mekong Delta was provided through deploying a mobile riverine force, from early 1967.


- Ninety-one professional journalists from 60 separate news outlets were embedded with combat units at the Second Battle of Fallujah between November and December 2004.  

- Tactical Fusion Centres were created to ‘concentrate various intelligence assets and intelligence
analysts with commanders on the ground’. 37

- A hybrid Combined Action Program concept was deployed in 2004, so that marines lived, shared dangers and fought alongside Iraqi counterparts, ‘enabling both cultures to solve the complex problems faced in combat’. 38

- In 2004, Marine reserve civil–military operations capabilities were expanded to ensure commanders could ‘establish, maintain, influence and/or exploit relations between military forces, governmental and non-governmental organisations, authorities and the community’. 39

- In 2005, the US Marine Corps Centre for Advanced Operational Culture Learning (CAOCL) was established to ‘standardise the ad hoc language and culture training that the Marines had originally grabbed from various sources’. 40

Hoffman argues that ‘the essence of adaptation’, involves ‘converting observations and experience into improved organisational proficiencies relative to adversaries and the environment’. 41 His intent is that the four case studies enable a ‘greater understanding of the process of learning, [to enable] wartime adaptation and innovation’. 42

Organisational learning: seeking ‘advantage over competitors’ 43

Supporting the four case studies, Hoffman emphasises that organisational learning theory ‘starts with individuals, whether it originates at the bottom or the top of an institution’. 44 This means that ‘information and ideas flow, [often incrementally] from contact between smaller units of the organisation and its operating environment, and creative ideas and solutions flow up to larger teams and higher levels of the organisation’. 45

Organisational learning includes ‘two distinctive levels of change’. The first is single-loop learning which

37 Hoffman, Mars Adapting, p 209.
41 Hoffman, Mars Adapting, p 31.
42 Hoffman, Mars Adapting, p 15.
43 Hoffman, Mars Adapting, p 27.
44 Hoffman, Mars Adapting, p 29.
45 Hoffman, Mars Adapting, p 29.
‘differentiates between adapting current competencies’, then the second is double-loop learning, which involves developing ‘entirely new skills and capabilities’. The late Chris Argyris, an American business theorist, described single-loop learning as ‘relating to immediate and routine matters, where the group improves its skills, doing better, within its existing organisational values’ and double-loop learning as ‘adopting new competencies and operating outside pre-existing policies and governing values’.

Hoffman employs a four-stage organisational learning cycle – inquire, interpret, investigate, integrate and institutionalise – as an analytical framework for examining how ‘organisations perceive their environment, acquire knowledge and learn new tasks or skills’. The organisational learning cycle creates options for organisations with ‘gaps between desired results and the environment’ to ‘adjust current modes of practice’ or ‘explore new options for increasing performance levels’ or face defeat.

Completing his analysis of organisational learning, Hoffman’s employs his own diagnostic tool, known as organisational learning capacity, to measure innovation using four criteria: leadership, organisational culture, learning mechanisms and dissemination mechanisms. Leadership is seen in an organisation’s openness to ideas, curiosity, creativity, relationships, shared problem-solving and comfort with conflicting perspectives. Organisational culture defines the beliefs, symbols, rituals and practices used to build organisational learning dominance while providing purpose to organisational activities. Learning mechanisms assist leaders to make sense of ongoing operations through after-action reports and interpretation; cognitive limitations; structuring staffs for learning; operational research analysis; and red-teaming adversary actions. Dissemination mechanisms allow an

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46 Hoffman, Mars Adapting, p 29.
48 Hoffman, Mars Adapting, p 16.
49 Hoffman, Mars Adapting, p 17.
50 Hoffman, Mars Adapting, pp 16–17.
51 Hoffman, Mars Adapting, pp 46.
53 Hoffman, Mars Adapting, pp 49–52; Red Team is an authorised Australian Defence Force term. It refers to a group of trained members that provide a capability to fully explore alternatives in plans and operations from the perspective of adversaries and others. Australian Defence Force Glossary [accessed 29 August 2022]. ‘Red teaming is defined as the practice of viewing a problem from an adversarial or contrarian point of view. Red teaming allows planners to fill the role of opponent. Australian Defence Force, Philosophical – 5 Planning, Edition 1, Canberra, Australia, 1 February 2022, p 63.'
organisation to share best practice and combine capability gaps and solutions, including developing lessons learned and doctrine; distributing new tactical ideas and techniques; creating informal networks to rapidly transferring knowledge; and turning recently gathered knowledge into new organisational competencies.  

Ultimately, organisational learning theory is ‘about changed behaviour, not merely the acquisition of knowledge’.  

**Conclusion**

For the ADF as a learning organisation, *Mars Adapting* provides useful insights for how to answer questions on adaptation during war and how the ADF can effectively measure its organisational learning capacity.

Military change ‘involves learning new routines and competencies – and adjusting old ones – to improve organisational performance at war’.  

As the case studies in *Mars Adapting* demonstrate, learning and adapting under fire, at war, can help achieve wartime victory but military organisations that do not learn and adapt risk human and materiel costs and, potentially, defeat.

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The reader might be excused for thinking that Fighting the Fleet is a naval history book, describing how fleets fought and won in past naval actions. Far from it. Captains Cares and Cowden have produced a practical guide, underpinned by historical example, that empowers naval commanders to wield naval power appropriately and effectively in meeting both today’s and future operational challenges in the maritime domain.

Woven into the fabric of this accessible book, which fuses operational art in the maritime domain, are the fundamental principles of three of the most important US naval theorists of the twentieth century: Rear Admiral Bradley Fiske, Rear Admiral JC Wylie and Captain Wayne Hughes.

While the authors advocate the reinvigoration of combat theory, the so-called ‘theory of the fight’, and the appropriate use of operations research, they avoid over-theorising. They provide invaluable insights for fleet or naval commanders and their staffs at the operational level of war on the fundamentals of modern naval warfare that are necessary to survive and win in the fast-evolving domain of naval combat. Indeed, this book should also be compulsory reading for all joint commanders and their staffs.

There are two main ideas in this timely book, which reminds us that while platforms have changed, combat theory endures. The first is that fleets have four distinct but interlocking functions at the operational level of war – striking, screening, scouting and basing. The second is that successful naval operational art – admiralship as distinct from generalship – is achieved when these functions are brought to bear in a cohesive, competitive scheme for victory in battle. In explaining these elements and how they are conjoined for advantage, a central theme emerges: despite the utility and importance of jointness, the effective employment of naval power requires a specialised language and understanding of naval concepts that is often diluted or completely
lost when too much jointness is introduced.

*Fighting the Fleet*, which focuses on the intellectual space of the operational art of war, provides a framework for debate and professional discussion. It begins – in the salient words of my good friend and colleague, Rear Admiral James Goldrick – the intellectual process necessary to evolve the limited, hitherto land-centric, mid-twentieth-century warfighting construct that underlies so much current joint thinking.

Cares and Cowden pose the question: if ideas are the mechanisms of advantage for a navy, why then should naval thought be diluted into a generic joint concept? While some contend that this is the joint mandate, the authors argue that a service’s ability to work well with other services does not necessarily compel all Services to think alike. They argue that fleet and naval commanders can win by ideas, but only if they and their staffs understand the high-level principles and processes of naval warfare and can translate that context into the kind of continuity and direction that prevails in a contest of ideas. This book drives home the enduring truth that, even with tremendous technological advances, navies still fight like navies.

In the words of another good friend – Admiral Scott Swift, who penned the foreword to this book – it ‘is at times not an easy read’, as it is a textbook that needs to be read and absorbed in detail. It will, however, challenge the reader to think and it will undoubtedly lead to broad ranging discussion.

*Fighting the Fleet* describes, analyses and weaves together naval (or more appropriately maritime) power, surveillance and search, movement and logistics and cognitive control into the higher theory of the fight. This is comprised of three fights that happen at the same time at all levels: the physical fight; the sensor fight and the cognitive fight. The authors argue these three fights can become mismatched and disconnected in time and space, something that could be effectively exploited by well-informed commanders and their staffs.

The penultimate chapter in this book is a study of how the concepts from this work might inform operations with future platforms in the coming age of robotics. The authors argue that the key to developing the proper perspective on robotics age naval operational art is to understand these technological developments as being a step further along a continuum in the evolution of naval combat theory.

Looking to the future, as the US Navy returns to great power competition amid rapid changes in maritime technology, *Captains Cares and Cowden* contend beyond the pages of this book that the modern US Navy is making too many capability decisions based on technological advances as the only advantage that matters.
They argue that the navy is bound in technical process rather than the theory of the fight, which properly informs investment. They attribute this to the shift to capability-based acquisition after the end of the Cold War, rather than the previous threat-based model. They argue that the US Navy has a long way to go before it has a theory of the fight for distributed maritime operations. In their view, the service needs to better understand how networks fight networks and how distributed forces fight distributed forces across all domains.

Turning to doctrine, the authors argue that naval doctrine is not about checklists and things to do but rather about concrete guidance on how to win at the competitive process of naval combat. They argue that more warfighters need to develop their own theory of the fight, which will in turn allow naval commanders and planners to make better plans, reach better decisions, and ultimately prevail in combat at sea and in the littoral when next called upon.

In their conclusion, the authors offer three salient recommendations to advance the operational art applicable to modern naval combat. Firstly, they recommend inaugurating a new golden age through investing directly in elevating modern naval thought. Ultimately, the management of power and the fighting of wars are contests of ideas and to stay ahead you need the best ideas. Secondly, they propose learning how to win by playing, subjecting new ideas to vigorous war-gaming efforts through competitive, stressful play. Test, test and retest to determine which ideas work best. And finally, they advocate taking the new golden age to sea. Even detailed plans fall apart once you make contact with the enemy. Practice how you expect to fight at sea.

Additional materials include four appendices expounding on salvo theory in some detail and deconstructing the oft-used and misused acronym C4ISR (command, control, communications, computers, intelligence, surveillance and reconnaissance).

As a naval officer with well over 40-years of experience at sea and ashore, who has commanded naval and joint forces at both the tactical and operational level of war, I commend this timely, compelling and highly relevant new work to you. I venture that you will be professionally and intellectually challenged, enriched and empowered by this insightful and practical guide for naval commanders and their staffs.
The weaponisation of everything:
a field guide to the new way of war

Mark Galeotti

Yale University Press, 2021
Reviewed by Jason Logue

It is not a coincidence that the cover of Mark Galeotti’s *The Weaponisation of Everything: A Field Guide to a New Way of War* invokes the nostalgia of the hard-copy, military procedure manuals and doctrine of the past. The, at most, two-colour print, bold typeface and washed-out, card cover harks back to a time when war was war; fighting, killing and defeating the enemy was martial excellence; and getting it all over and done with by Christmas was the goal. Simpler times, indeed. Today, this minimalist view of war, and warfare, has been put to the metaphorical sword. Thanks to the second, third and, now, fourth wave of industrial revolutions, we live with far more complexity, which has affected not only the technologies they have borne but also the terminology that has grown with them. It is into this buzzword and jargon-laden ecosystem that Galeotti bravely treads, seeking to explore the weaponisation of, well, everything.

Galeotti is an accomplished author and scholar with an extensive pedigree in transnational crime and all things nefarious emanating from Russia. This deep understanding of Russian coercive actions runs the gamut of criminal through military actions, providing an important reference point for the West’s increasing fascination with wielding everything as force.

In *Weaponisation of Everything*, Galeotti argues our global interdependence has left us looking for a broader set of ways and means to assert authority or register dissent. These actions are beyond the traditional methods of influencing understanding and behaviour associated with a well-delivered punch in the nose. Galeotti uses his book to delve into some of the more topical and recent forays into ‘assertive statecraft’.

The idea of assertive statecraft is, however, not new. From the time the instruments of national power – diplomacy, information, military and economic (DIME) – appeared in US military doctrine during the 1980s there was an underlying assumption they were tools to be used. Perhaps over time, at least in the West and
coincidentally with the reversion of the Cold War threat, these ‘instruments’, inherently tools of statecraft, have been reformed into the kinder, gentler, ‘elements’ ensuring bureaucratic organisational principles are prioritised over integrated, offensive, use. The thought of wielding anything short of military force in an offensive manner has not neatly fit within Western values and ideals. But, potential adversaries across the world have proven to be not so constrained.

**All hail jargon warfare**

For her recent dissertation, *The words that matter: terminology and performance in the US Army*,¹ Georgetown academic Dr Elena Wicker identified over 200 official categories or descriptors of warfare since 1900. Moving well beyond the common domain structure closely reflected in the capstone doctrine of Western military forces, the terms defined, or further obscured, the ways of warfare. Some terms have been enduring while others have lasted a single edition of a published military dictionary, clearly demonstrating how quickly terminology enters and exits professional use. This spread and growth of terms is a useful insight into the increasing complexity facing sailors, soldiers and aviators. Her research is useful in answering why this apparent phenomenon exists in military thought, and broader afield – importing and modelling. Dr Wicker believes organisations import language from other places, creating a cycle of nomenclature that is familiar but distinct within its organisational use. Organisations also have a habit of modelling new phrases or terms on existing or established structures, such as ‘systems of systems’, to aid recognition and connection, thereby reducing internal resistance to new ideas.

At its heart, *The Weaponisation of Everything* helps makes sense of the expanding lexicon that has loomed large in Western thought since the late 1990s when the lessons of Vietnam and the Cold War really took hold. Reductions in military budgets were offset through a focus on a whole-of-government or a ‘comprehensive approach’. Our collective Western struggle with counterinsurgency and counterterrorism fights over the past 20 years has proved a boon for think tanks, academia and even our own military leaders, who have sought to distil complex requirements into memorable phrases and terms.

Our current era of strategic competition has seen a new wave of creation, modification or just outright bastardisation of terminology to suit emerging

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¹ Elena Wicker, *The words that matter: terminology and performance in the US Army* [PhD dissertation], Georgetown University, 2022. [https://repository.library.georgetown.edu/handle/10822/1064626](https://repository.library.georgetown.edu/handle/10822/1064626) [restricted access]
circumstances, often with no regard to history. This added complexity, often starkly at odds with well-established principles of war, needs to be explained to have any hope of being effective. Making sense of the environment in which we find ourselves is as important as operating in and through it. Galeotti clearly understands this and, rather than adding to the professional discourse, has instead sought to explain it – simply, often cynically and succinctly.

Galeotti’s 12 chapters, while not structured as DIMEFIL (the term that became popular in the 2010s, which added financial, intelligence and law enforcement to the established DIME instruments), cover the gamut of actors and actions playing out in the world today. He uses short case studies to illustrate his ‘new way of war’ and, most importantly, ends each chapter with a series of curated references from which readers may choose to learn more. It truly is a field manual of old. Of course, this approach will have a shelf life of only a few short years, as Wicker’s research has illustrated.

Galeotti may have inadvertently signed on to a continual revision of his work. I hope he chooses that path because The Weaponisation of Everything needs to be on the curriculum of every military and national security college in the Western world. In 225 pages of easily understood and engaging writing he has done more to decode the environment in which we find ourselves than all the think tanks put together. In many regards, Galeotti has stepped into the breach as a think tank translator. Hopefully, he can find active engagement as a think tank whisperer because in times of increasing complexity, simplification to aid rapid understanding is paramount.

The Weaponisation of Everything is one of those books that needs to become core to a professional library. It is a jabberwocky attuned to the national security environment and focused on making sense of the ever-expanding knowledge base about the world in which we live. I will be buying copies for my team as gifts.
’History is not what you thought, it’s what you remember’, observed Sellar and Yeatman in their spoof on British history, *1066 and All That*. Their humorous point is pertinent to the recently published book *Fighting Australia’s Cold War: The Nexus of Strategy and Operations in a Multipolar Asia, 1945–1965*. Those Australians living with operational experience from Malaya and Borneo are few and diminishing, and direct experience has now largely transformed to memory at second-hand, with all the consequential flaws in recall.

This book provides a series of short and clear contributions from seven separate authors, as well as chapters contributed by the two editors, that redress both the reliance on memory and the use of multiple references as initial sources. The contributing authors are mostly academics and distinguished in their respective fields. It is divided into three parts: Part 1 addresses strategy and the postwar defence arrangements for the Service; Part 2 covers planning and fighting in South-East Asia over the period 1955–1965; and Part 3 (a single chapter) provides a retrospective of the period covered by the book. This final chapter seeks to draw the threads together and postulates an ‘Australian way of war’.

**Part 1: Strategy and the postwar military**

Stephen Frühling sets the scene with the opening chapter on Australian strategic policy in the global context of the Cold War over the period of the book. This chapter provides a much needed counterbalance to the impression in non-expert circles that Australia in the post–Second World War period strengthened its relations with the USA alone, culminating in the ANZUS Treaty, after which any

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other relationship was redundant. He provides, to the contrary, a clear and nuanced description of the search by Australian governments for collective security with both our traditional ally, the United Kingdom, and our (then) more recent ally, the United States. Indeed, without saying as much, this chapter demonstrates that the UK – far from lying comatose and broken in the late 1940s and early 1950s, after its exertions in the Second World War – was back in South-East Asia in strength and with serious intent to protect its interests. Frühling goes on to address the development of security arrangements for Australia, and for the wider region, through the South-East Asia Treaty Organization (SEATO), against a background of perceived communist expansion. He also demonstrates the links between the probable outcomes anticipated in the various Australian Strategic Basis papers and external defence planning. His chapter concludes around the 1966 Strategic Basis paper, in which the Australian Defence Committee assessed that South-East Asia would not fall quickly to communism and that there would be ample warning time. The shift to ‘Defence of Australia’ commences from that point.

John Blaxland follows with a commentary on the Australian Army, Royal Australian Navy (RAN) and Royal Australian Air Force (RAAF) from the end of the Second World War to the 1950s. He notes the growth of the three Services during the Second World War, and the consequential pressures they faced from demobilisation. He makes the key point that all three Services retained a conformity with British structures, processes and practices – albeit to a lesser extent in the RAAF – and that this pattern was in alignment with Australian commitment in the 1940s and 1950s to Britain and the Empire. He also remarks that an unfortunate by-product from the operational setting of the Service commitments during the war was the lack of a common sense of shared purpose. Regrettably, the same form of operational setting was to be reproduced during the commitments of the 1950s and 1960s, with the consequence that ‘jointery’ was to be a long time in the making.

David Horner provides a chapter, drawn from his work on the official history of ASIO, that highlights the emphasis during the period on countersubversion. Today this may seem out of proportion to the actual threat posed, but at the time it was considered a fundamental requirement for security. The lived experience of most members of the Australian government at the time recognised the actions of the Australian Communist Party in disrupting defence arrangements in the Second World War prior to the invasion by Germany of the USSR, and to a lesser extent after that invasion.
Part 1 concludes with a chapter by Thomas Richardson on the Korean War and the contribution by the Australian Army, the RAN and the RAAF to that conflict. A two-battalion group plus some headquarters and support personnel from the Army, a squadron under separate operational command from the RAAF, and a number of ships from the RAN, also under separate command and performing tasks largely unrelated to those of the other two Service elements, establishes a pattern to be repeated in future commitments.

**Part 2: Planning for and fighting in South-East Asia, 1955–1965**

Part 2 opens with a chapter from Tristan Moss on South-East Asia war planning during the 1950s and early 1960s, which charts the commitment by Australia toward the planning and provision of forces. His opening line is arresting: ‘During the Cold War, Australia expected to fight any global war alongside the British’. Moss charts the development of the Far East Strategic Reserve (FESR) and the three Australian Services’ contributions. He highlights the earlier point that the British were back in South-East Asia in force, with the intention of most definitely not repeating the mistakes of their regional defence posture from the late 1930s to 1941. This intent included a planned commitment to move forces into Thailand to meet an advancing enemy, which would have required four divisions, plus significant air and naval forces. Australia’s stated undertaking was to provide a corps of three divisions to Malaya, but the time for mobilisation was a factor in revision of these plans and the creation of a reserve in place. This reserve, under British command, was also the Commonwealth contribution to SEATO. Moss emphasises that while the FESR provided the basis for engagement with SEATO and SEATO planning, the reserve was also subject to significant operational commitments in the Malayan Emergency and confrontation with Indonesia. Consequently, while the reserve was committed at least in part to operations, somewhat of a contradiction for a reserve, their presence in the region served to meet and validate the twin goals of alliance maintenance and deterrence.

Chapters 6, 7 and 8, by Thomas Richardson, Lachlan Grant and Michael Kelly, and Tristan Moss respectively, provide the specifics of Australia’s contribution to the Malayan Emergency, the confrontation with Indonesia and commitment to Borneo, and Australia’s commitment to defending its land border in Papua New Guinea (PNG). Richardson’s chapter on the Malayan Emergency, charts the development of the Emergency, and the communist terrorists’ background with the Second World War Malayan Peoples’ Anti-Japanese Army (MPAJA). He highlights the initially fragmented
response to the violence, which was followed by the invigoration of government including the development of the Briggs Plan and the leadership of Sir Gerald Templer. This provides the setting for the commencement of Australian commitments to the Emergency in 1953, which lasting into 1963. Moss remarks on the development of an effective counterinsurgency technique, codified in 1952 in the manual, *The conduct of anti-terrorist operations in Malaya* (also known as ATOM). It emphasised breaking the links between main and local forces, including denial of access to local sources of supply through intensive patrolling and enduring ambushes. This practice formed the foundation for Australian Army tactical employment in Vietnam.

Lachlan Grant and Michael Kelly’s chapter on confrontation with Indonesia and commitment to Borneo is similar in approach to Richardson’s. It charts the geopolitical background flowing from the decision to create Malaysia from the states of Malaya, British North Borneo (now Sabah), Singapore and Sarawak; noting Brunei’s withdrawal from the proposal and Indonesia’s opposition to a proposal it considered to be neo-colonialist. Grant and Kelly discuss the form of operations undertaken by Australian forces, in particular the rigour of Claret operations under the direction of British Major General Walter Walker. Again, the pattern of unit, sub-unit and platoon tactical technique is emphasised.

Tristan Moss concludes Part 2 by presenting operations in Australian, or Australian-controlled territory in PNG, again against the backdrop of the Cold War, and confrontation with Indonesia. He discusses the development of the Pacific Islands Regiment (PIR) to provide for the defence of the citizenry of PNG by their own countrymen. The role of the PIR, particularly on the border with West Papua was, as in Borneo, the protection of locals from incursions as well as the gaining of intelligence. Since PNG was under Australian control, it is in this section that the growth of the PIR is set in the wider context of decisions for the Army to its expand Regular and National Service components and to contribute to Vietnam, particularly after the cessation of confrontation and the changed relationship with Indonesia following the overthrow of Sukarno.

While Part 1 of the book provides an excellent coverage of the development of the Cold War and Australia’s perception of threat, policy response and operational commitment, Part 2 provides a similarly excellent coverage of each of the conflicts entailing

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commitment of generally unit-sized combat force elements and the operations undertaken by those elements. Part 2, in particular, can be read in sequence or used as a basis of reference for each conflict by selected chapter. This part is also notable, from the reviewer’s perspective, in charting the repeated pattern across the various commitments of tactical development, the reasons for the adopted approach and the alternatives available but not used.

**Part 3: Retrospective**

Peter Dean, in the single chapter of Part 3, sets his ambitions high, in trying to draw the themes, predominantly from Part 2, into a wider ‘way of war’ and to set this within a British strategic culture drawn from BH Liddell Hart. Further, he seeks to see the doctrine of the ‘indirect approach’ made manifest in Australia’s approach to planning and conduct of operational commitments in the period under discussion. Readers will find this section controversial. I certainly found it so, and entertaining as well! There is no doubt that Australia sought collective security in its foreign policy and defence plans and in its operational commitments by engaging with two of the world’s great powers. Australia sought to convince them of the earnestness of its intent and the need for them both to stay or become engaged in South-East Asia. In the period under discussion, the tactical forces that Australia provided into South-East Asia may have been small and sent to operate at a distance from our shores, but that does not make it an indirect approach. What is evident in the book is the policy emphasis on fighting within an alliance framework, the stipulation of limited operational objectives, and the requirement for the conduct of operations to be economical in terms of resources employed.

The final chapter is challenging in what it includes and what it leaves out. Regrettably, consideration of domestic fiscal policy is excluded. If included, it would show a contradiction between stated policy ‘ends’ and provided ‘means’. John Blaxland outlines the intentions for force growth in the early 1950s but the dramatic change in fiscal policy – in 1953 for example, when the Army budget was reduced by one-third with consequential massive disruption to re-equipment and sustainment – is not mentioned. As Paul Dibb noted in *The Australian* newspaper, quoting Sir Arthur Tange, ‘Strategic policy without resources is not strategic policy.’ Charting the disconnections in stated policy versus provided resources, as occurred again in the late 1970s and also the late 1980s, might offer a more realistic pattern of the ‘way of (Australian Defence) policy’ than seeking a ‘way of war’ from small force deployments.

Notwithstanding this quibble, *Fighting Australia’s Cold War: The Nexus*
of Strategy and Operations in A Multipolar Asia, 1945–1965 is an enjoyable, informative, well-crafted and timely contribution to telling Australians their not-so-recent history, so as not to leave the telling to the vagaries of memory or the biased and uninformed.
The crux: how leaders become strategists

Richard Rumelt

Profile Books, London, 2022

Reviewed by Michael Hatherell

The Crux: How Leaders Become Strategists, the latest book by Richard Rumelt, has recently been released a decade after his previous well-known title – Good Strategy/Bad Strategy: The Difference and Why it Matters. In The Crux, Rumelt builds on the key principles of his previous work while also offering something new for students of strategy.

The title stems from a rock-climbing analogy. Rumelt opens with an observation from his time living in Fontainebleau, France. While there, Rumelt’s walking route, we are told, brought him close to a well-known sandstone boulder popular with climbers. In his engagement with some of those who tried to conquer the boulder, Rumelt observed the way they described the ‘key’ to getting through a section of the climb – what they referred to as ‘the crux’.

Getting through the crux is difficult – for climbers, it is a significant challenge that needs creative thinking and sometimes repeated attempts to solve. Rumelt describes climbers constantly failing to pass through the crux and needing to rethink their approach. But there are two key elements of the analogy that particularly interest Rumelt: significance and ‘addressability’. A crux is significant because solving it will lead to a meaningful benefit for the strategic actor. But Rumelt is quick to note that the crux also must be addressable – while it might be challenging, there is a plausible way for it to be resolved.

For strategists and the organisations or nations they represent, Rumelt argues that the concept of the crux offers a valuable way of thinking about strategy as a method of problem-solving. Rumelt’s ‘three-part strategic skill’ begins with being able to judge ‘which issues are truly important and which are secondary’. Here Rumelt continues his argument from his previous book: developing a long list of organisational goals is not strategy. Second, strategists must be able to judge the difficulty of addressing

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the key challenge in front of them – seeking to do something that is not achievable is not good strategy. Last, the strategist must apply ‘coherent action’, where resources are focused and not spread too widely. Good strategy, according to this argument, must include focused action that avoids distraction and contradictory priorities.

One potential critique of The Crux is that these key arguments are not new. Rumelt’s principles of strategy are largely unchanged from Good Strategy/Bad Strategy; such as the importance of diagnosing the problem, making choices, and developing clear policy and coherent action. Yet Rumelt’s latest work provides a more organised and compelling case for his ideas. The crux analogy is a better way of communicating the essence of Rumelt’s vision of strategy as a problem-solving technique. And, in this book, each of the chapters and sections is given a clear purpose.

Just like in his previous book, The Crux is filled with numerous short case studies to illustrate Rumelt’s ideas about effective strategy. Most of these examples are from the world of business, which makes sense given the book’s primary audience and Rumelt’s extensive consultancy work. It includes some examples of grand strategy or military strategy, but these are rarer and arguably not as revealing as those examining the business strategy of Netflix, Intel, Space X or Uber. Yet, there is still much that applies to a defence or national security context.

Rumelt devotes significant attention in the book to outlining different types of challenges that might emerge from the process of diagnosis. The first are ‘choice challenges’. These emerge when we know what the different options facing the organisation are, but there are aspects of the decision that are uncertain or difficult to quantify. Engineering-design challenges, Rumelt argues, require us to create something completely new even if we might have models to help us understand what it could be.

But it is the final type of challenge that is of most interest to strategists in the national security context, what Rumelt refers to as ‘gnarly design challenges’. These are the challenges that lack any easy to identify options and no simple causal relationship between actions and outcomes. To visualise this type of challenge, Rumelt uses another analogy:

Think of a set of gnarly challenges as a large tangle of sticks and wire. It blocks your way forward. You could hack at it for days. But find the right spot and cut one thick wire, and the tangle may break into smaller chunks that are manageable. That wire is the crux of the tangle.\(^3\)

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3 Rumelt, The Crux, p 27.
The way Rumelt illustrates these gnarly design challenges and what they demand of the strategist should resonate with those in the defence and national security community, who lack the comfort of working with simple challenges. Given what we understand about how complexity shapes the contemporary strategic environment, Rumelt’s emphasis on prioritisation and seeking clarity is welcome.

Importantly, *The Crux* offers considerable insight into the process of diagnosing the problem. It discusses, for instance, how analogy can be used in the process of diagnosis but also some pitfalls of relying on existing frames of reference. Here the example of AirLand Battle is used quite well to demonstrate the value of ‘changing the frame’.

Throughout the book, Rumelt argues that more time and effort should be dedicated to the act of diagnosis, and that creativity and critical thinking are just as important here as they are in developing solutions or courses of action. In many of the examples provided, decision-makers too rapidly came to a flawed assessment of the situation, and ultimately failed to locate the crux. They either put forward ‘an unsupported goal set without an analysis or even recognition of the underlying problems’ or they developed goals which addressed the wrong problem, because the diagnosis was ‘lacking or restricted by politics or myopia’. Along with Rumelt’s warning against seeing long lists of goals as constituting strategy, there is value here for those involved in developing organisational strategy.

But it is perhaps what the book can offer for thinking about strategy at the national level that is of most value – if only because the relationship between an identified crux and coherent action should challenge our ideas about what grand strategy can or should be. Rumelt explores the relationship between the crux and coherent action across many case studies, including US grand strategy during the Second World War and the failures in Afghanistan. In addressing this relationship, Rumelt argues that:

One sees how coherence is easily lost. The cost of coherence is saying no to many interests with reasonable values and arguments. A strategist tries not to be a politician. The art of compromise and building the big tent that everyone can shelter under is not that of the strategist. Rather, it is coherence aimed at the crux of the problem.

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Strategy at the national level is where reaching this type of coherence is most challenged. Decision-makers at this level are pressed to consider many issues and interests. There is no easy way to sidestep politics at the national level of strategy – indeed political considerations will often inherently be part of the crux that emerges from the process of diagnosis. Despite Rumelt’s argument, there is little value in trying to rid strategy at the national level of politics.

Yet if a nation like Australia is to invest more in national or grand strategy (as opposed to the practice of statecraft or simply ‘muddling through’), Rumelt’s vision of meaningful strategy has immense value. An Australian grand strategy or national security strategy should not take the form of a long list of goals – instead it should be based on a well-defined and communicated idea of the crux and a set of coherent actions that follow from this problem diagnosis. Doing so would not be an easy task but it might lead to a more coherent vision for Australian national power.
CALL FOR SUBMISSIONS (2022–2023)

The Australian Journal of Defence and Strategic Studies (AJDSS) is the flagship academic journal of the Australian Defence Force. The aim of the AJDSS is to stimulate discussion on Australia’s current and future defence strategy and regional security challenges and to foster original, innovative research and analysis. The AJDSS is focused on being relevant to the professional military, national security and government agencies, defence industry and academia. The AJDSS is an open-access journal published twice a year online and in print by the Centre for Defence Research at the Australian Defence College.

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The Looking Glass

The Looking Glass provides senior ADF personnel and Defence civilians with timely analysis of major issues affecting Australian strategic policy choices. Prepared by the Senior Fellows at the Centre for Defence Research, The Looking Glass aims to provide readers with informed options on a new topic each month, as well as key background and an assessment of implications for Australia’s national interests.

The Looking Glass No. 11: The myth of the master strategist Part 2
Xi Jinping and getting China wrong

This is the second of two issues examining the myth of ‘the master strategist’. It examines the now common narrative that Beijing has a coherent, long-term strategy to integrate its national power that draws from Maoist ideology and ancient Chinese principles of statecraft. The paper argues it is problematic to exaggerate the role of ideology and strategy coherence in explaining Beijing’s behaviour, and that domestic as well as international politics have roles to play.

The Listening Post

The Listening Post is the Centre for Defence Research’s monthly digest bringing authoritative scholarship, debates and podcasts published over the course of the month on global, regional and Australian defence and strategic issues.

Its aim is to provide a single repository where senior ADF personnel and Defence civilians can easily access articles, commentary and analysis on the major issues facing Australian strategic policy, accompanied by expert analysis from the Senior Research Fellows from the Centre for Defence Research.

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Plus reviews by Peter Layton, Chris Field, Allan du Toit, Jason Logue, Andrew Hine and Michael Hatherell