**A Matter of Preference**

Preference Ordering, Red Teaming, & the Need for Cultural Awareness

"If you do not know your enemies…you will be imperiled in every single battle." **Sun Tzu**, 6thC BC[[1]](#footnote--1)

“A desk is a dangerous place from which to view the world.” **John Le Carré**, *Tinker, Tailor, Solider, Spy*

**Abstract**:

This paper is concerned with the matter of preferences. As with any activity, decisions regarding war reflect a hierarchy of values that condition choice. These preferences in turn shape the scope and conduct of the war itself. For example, soldiers who value self-preservation above all will break soon after battle is joined. In contrast, those who prefer the survival of their community can be anticipated to fight until the bitter end. These differences are crucial, yet are a reality modern security studies poorly appreciates. As with much of the thinking inspired by the Enlightenment, it is tacitly assumed that the hierarchy of values any actor espouses is universal. Judging by the frequency with which the international community embraces sanctions as tool of coercive diplomacy, materialism in particular is seen as reigning supreme. Yet the very failure of these policies puts paid to the idea of a universality of preferences. Moreover, even when preferences are not assumed by policymakers to be common, the assumptions made in their stead have often been characterized by a complete and utter lack of cultural understanding. It is, after all, culture that underpins the ranking of preferences in the first place. Lacking such insight, catastrophic policy decisions frequently follow, of which the German invasion of Russia and the Japanese assault on Pearl Harbor are discussed here. The implication for those tasked with a ‘red team’ or ‘opposing force’ (OPFOR) role is that they must be trained not only in the operational plans of prospective rivals, but also sufficiently immersed in a prospective opponent’s culture. Only by doing so can one uncover the hierarchy of values that inform the adoption and implementation of military doctrines.

1.0 **Introduction**

*The Rationalist Roots of Security Studies*

Few bequests have been more profound or as enduring as that of the Enlightenment. Here, in the late 17th and 18th centuries, scholars like Descartes and Newton, followed by Kant, Rousseau, and Smith, argued that social phenomena were not the product of divine intervention—be it capricious or beneficent—but rather the consequence of tangible forces, driven by material self interest, and discoverable by reason. They argued that the right of kings should not be seen as the product of God’s words, encapsulated in scripture, and reflecting the desires of some higher power, but rather as a reflection of self-interested actors whose chief interest lay in the maintenance of power and all the freedoms and luxuries it brings. In other words, the root of causation was shifted from the ethereal to the material, from matters of faith to the assumption of material interest.

 It is good that this transformation took place, for without an appreciation of human agency in the matter of causation, the birth of science would have been impossible. Indeed, the search for consistent patterns amongst collected data—the technique that lies at the heart of the scientific method—cannot take place if causal mechanisms are deemed beyond the scope of human comprehension.[[2]](#footnote-0) God’s will, after all, is impossible to graph. However, once the idea of rationality took hold, theories predicated on self-interested behaviour began to proliferate. In the realm of political science, studies considering the pursuit of power and wealth were particularly susceptible to such thought. During a long period of intellectual gestation, bookended by Machiavelli at one end and the Victorian economist Alfred Marshall at the other, there rose to prominence the idea that *all* individuals were materially self-interested and, consequently, adopt maximizing strategies with these ends in mind.

 The 20thC that followed would see rationalist theories transit from strength to strength. The floodgates opened with the ‘rational choice’ pioneers of the postwar era, who came offering models of self-interested behaviour in issues as disparate as collective action, voting, and coalition building.[[3]](#footnote-1) Amongst the international relations literature, rationalist accounts dominated the mainstream. Realists and liberals, after all, share a common ontology. Both contend that rational self-maximization is the certain and inevitable byproduct of an insatiably acquisitive human nature operating amidst resource constraint.[[4]](#footnote-2) In both theoretical frameworks, actors are universally anticipated to pursue material rewards and shy away from material costs. That, at heart, is what the rational actor assumption is all about.

 Such thinking has deeply influenced our understanding of security and the means to achieve it. Take coercive diplomacy. The logic of this theory clearly illustrates the intellectual lineage connecting security studies to rationalism, for it suggests that the combination of threats and perhaps a limited use of force, coupled alongside a series of inducements, can be used to dissuade an opponent from pursuing a particular policy.[[5]](#footnote-3) In other words, a truly rational actor should be persuaded by a combination of sticks and carrots sufficient to exceed the material return of whatever policy the rival finds so egregious. By using coercive diplomacy to push net benefit into loss, the aggravating policy will be halted. The implication is that when all actors are assumed to operate with the same hierarchy of preferences—with materialist concerns at the top—decisions surrounding war and peace take on the form of an accounting equation.

 The problem, however, is that this strategy does not work particularly well. A recent survey of eight separate conflicts between the West and various regional aggressors—including Serbia, Libya, Iraq, North Korea, and the Taliban—found 21 separate instances where coercive diplomacy was deployed. Of these, 12 exchanges ended in outright failure, 5 resulted in temporary success followed by fresh acts of non-compliance, three resulted in lasting—albeit costly—success, and just one resulted in “cheap success in which compliance was obtained without a shot.”[[6]](#footnote-4) Despite all the appeals to rationality, ranging from assurances and inducements to sanctions, no-fly zones, and the occasional cruise missile attack, the most frequent outcome was a failure to change the opponent's ways. The assumption that all actors seek to maximize their material conditions cannot therefore hold true.

*Rationalism’s Quandary*

 The most obvious concern with the Enlightenment's concept of material-driven rationality is the fact that the human brain is not an impartial calculating machine. Instead, its consideration of prospective costs and benefits appears to be biased in systematic ways. When considering historical evidence, for example, decisionmakers search not so much for the reasons why a particular even occurred, but rather focus their attention on the events themselves. In what is known as 'confirmation bias', this effort is pursued in order to marshal information amendable to the confirmation of existing predispositions.[[7]](#footnote-5) In other words, policymakers will generally stick to evidence the supports their previously-held opinions.[[8]](#footnote-6) Related is the problem of ‘cognitive dissonance,’ including the tendency to exaggerate the potential benefits offered by certain, previously-favoured alternatives.[[9]](#footnote-7) Misperception is similarly problematic, given that is common for decision makers to draw inaccurate inferences, particularly regarding potential consequences and the reactions of others.[[10]](#footnote-8) Pure rationalism is therefore an abstraction, something impossible to achieve when the brain is hardwired to compute in such biased ways.

 This computation is limited in structural ways as well. Foremost is the fact that for all its incredible complexity, the brain still faces limits to its computing power. As with any other calculating machine, the brain’s memory is neither endless nor its processing power unlimited. These cognitive constraints make it impossible to deal with an inherently complicated world through perfectly rational means. Instead, humans overcome this overload of information and intricacy with shorthand rules to make the process of decisionmaking more manageable.[[11]](#footnote-9) Thus rather than systematically considering all alternatives and rationally weighing the potential costs and benefits involved, decisions are often made at the behest of various ‘rules of thumb’ and ‘gut instinct.’ Moreover, the information used to make these instinctual choices may itself be vague, incorrect, or even out of reach of those who need it. After all, secrecy tends to cloud the matters of politics and war. Here information is private and there are obvious incentives to misrepresent the truth.[[12]](#footnote-10) Perhaps worst of all are periods of crisis, where there is usually little time to rationally ponder what evidence is available.[[13]](#footnote-11) When the enemy is at the gates, time is usually of the essence.

 The consequence of these cognitive failings is that it is very hard to anticipate outcomes with the precision that the rational ideal suggests. Indeed, when costs and benefits are incorrectly weighted, the result a policy achieves almost invariably diverges from expectation. Military history, for example, is replete with examples where combat capabilities were either over- or under-estimated, leading to calamitous results.[[14]](#footnote-12) The Great War’s deadlock of early 1915 and the failed German march on Moscow in 1941—outcomes both generally unforeseen by the proponents who put these war plans into practice—put paid to the notion that policymakers can calmly and correctly calculate the costs and benefits associated with military action.

 Such limitations are the reason why some proponents of rational choice theories have in recent years advocated a move away from models predicated on ‘procedural’ rationality, where the assumption is that policymakers carefully consider all alternatives, to one more ‘instrumental’ in nature.[[15]](#footnote-13) With this the assumption of rationality has been relaxed, holding that while an ordering of alternatives will be made based on prospective costs and benefits—with the one with the highest likely yield selected—it is nonetheless recognized that this list will be relatively limited and confronted by the tyranny of imperfect information. And yet the core idea of rationality has not been abandoned. Instead, it is maintained by the conclusion that while humans may not be perfectly rational actors, they do make rational *choices*. Though limited in their ability to weigh costs and benefits with precision, humans are nonetheless purposeful in their behaviour. After all, while the actions of Hitler and Khomeini may have been wholeheartedly irrational on procedural grounds, they both acted in a highly instrumental manner.[[16]](#footnote-14) Hitler did not bleed troops from Germany’s war effort to man the gas chambers of his *Endlösung* because he was irrational; he did it because he considered the extermination of all European Jewry a more pressing concern than winning the war against the Soviets.[[17]](#footnote-15) The concept of rationality therefore cannot be rejected completely out of hand.

 In this light, we can see how actors engage in ‘rational’ efforts to ensure their preferences are met. Even in the extreme cases of Hitler and Khomeini, strategies were adopted on the basis of how likely they were to contribute to the ends preferred. Time and time again, regardless the circumstance, policies offering high payoffs and acceptable losses are chosen over those that do not. No amount of cognitive constraint dissuades this central tendency. The strategies chosen by policymakers may therefore be imperfect, risky, and perhaps even ill-advised, but rarely do they display an overt contravention to what decision makers hold dear.

*The Importance of Preference Ordering*

 The consequence of this purposeful aspect of human pursuits is that we can understand behavior so long as we understand the goals the drove them. This observation recognizes the promise of rationality, but also includes an important caveat. Humans may be purposive, but they pursue instrumental rationality in a reflection of specific values. In other words, preferences are not universal. They can, in fact, vary a great deal.[[18]](#footnote-16) Indeed, an actor’s hierarchy of values is determined by specific historical and cultural circumstances. It therefore takes a nuanced understanding of these conditions to determine what the prevailing order of preferred values is.

 The lesson here is that the traditional concept of rationality is significantly flawed. Western policymakers tend to assume their non-Western opponents—both real and prospective—value individual freedom and material wealth above all other considerations. This sits well within the legacy of the Enlightenment, but it is decidedly untrue. *Pace* Kant and Rousseau, preferences are not universal, a fact amply demonstrated by the West’s wholesale lack of success in its coercive efforts cited above. Economic sanctions, after all, only work when an opponent cares about material wealth. However, when an opponent’s preferences are contrary to this expectation, such policies will meet with abject failure. More importantly, these cases are relatively minor instances of a widespread problem. Policymakers demonstrate a penchant for blithely assuming the behavioural and outcome preferences of their rivals, all without any serious consideration as to whether or not these assumptions are accurate. As we shall see next, the cost of this failure to perform due diligence can be murderously high.

2.0 **The Consequences of Cultural Misunderstanding**

*Barbarossa*

The first illustrative case is the German invasion of Russia in the summer of 1941. It is interesting to note that Hitler was not above nervousness during the lead-up to the campaign. On June 22, the day operation *Barbarossa* began, Hitler requested celestial intervention to see this difficult task through. “I have decided again today to place the fate and future of the Reich and our people in the hands of our soldiers. May God aid us, especially in this fight.”[[19]](#footnote-17) Such worry, however, belied the extreme confidence of the *Führer* and his generals. Busy planning for the upcoming attack, the Commander-in-Chief of the Army, Walther von Brauchitsch, wrote in April 1941 that “Massive frontier battles [are] to be expected; [of whose] duration [would only be] up to four weeks.” Thereafter, “only minor resistance is then still to be reckoned with.”[[20]](#footnote-18) Hitler was even more emphatic. “You have only to kick in the door,” he told general Rundstedt on the eve of Barbarossa, “and the whole rotten structure will come crashing down.”[[21]](#footnote-19) As a testament to this confidence, German military planners anticipated that only 58 divisions would remain in Russia by the time the bitter cold set in.[[22]](#footnote-20) No more than this relatively small garrison force was deemed necessary, for it was assumed that by then all the heavy fighting would be over.

Germany’s overwhelming early success did nothing to diminish this excessive confidence. Franz Halder, head of the Army’s General staff, remarked on July 3 that:

“One can already say that the task of destroying the mass of the Red Army in front of the

Dvina and Dnepr has been fulfilled…We can calculate on meeting east…only disjointed forces which alone do not possess the strength to hinder operations…It is therefore not claiming too much when I assert that the campaign against Russia has been won in fourteen days.”[[23]](#footnote-21)

The war, however, would last far longer than that. In fact, hardly a month would go by before it became increasingly apparent that the Germans had made a fatal mistake. As the *Wehrmacht*’s panzers and plodding infantry were dragged ever deeper into the Russian heartland, victory refused to come. With a sense of exasperation in his words, Halder wrote on August 11 that:

“The whole situation shows more and more clearly that we have underestimated the colossus of Russia….This conclusion is shown both on the organizational as well as the economic levels, in the transportation, and above all in infantry divisions. We have already identified 360. The divisions are admittedly not armed and equipped in our sense, and tactically they are badly led. But there they are; and when we destroy a dozen the Russians simply establish another dozen.”[[24]](#footnote-22)

These words came after the battle of Smolensk, where the Russians proved once again their willingness to fight hard, even after being surrounded. Because of this tenacity, the commander of the 18th panzer division advised the high command to take steps to reduce casualties, “if we do not intend to win ourselves to death.”[[25]](#footnote-23)

 The Germans found themselves in this increasingly uncomfortable position because they had completely misunderstood the Russians’ hierarchy of preferences. The German’s assumption was that both common soldier and mid-level officer had little inclination towards fighting. When confronted with superior forces, the anticipated preference of the Russian peasantry and the urban workers who formed the backbone of the Red Army would be to flee. By the time of Smolensk, however, this had proven to be decidedly not the case. Even more startling was the mistaken German assumption that the Soviets would be unable to mobilize reserves. Who would fight for the hated Communist banner, the thinking went. As it turned out, far more than the Germans ever imagined. Indeed, the Red Army brought a stunning 5.3 million call-ups to the colours by the end of June 1941, and the fresh forces kept coming. In total, between the time of the invasion and Dec 31, 1941, the Soviets raised an astounding 821 divisional equivalents.[[26]](#footnote-24) As the war wore on, the Germans would rue the seemingly inexhaustible supply of Russian soldiers.[[27]](#footnote-25)

 In no time it became clear that not only would Russia fight, but so too would it fight hard. As the Germans would learn to their great pain, the foremost preference of Russian society was not individual survival, but instead an intense desire to throw off the yoke of the German invaders. This preference remained central, even at the cost of 30 million lives and the destruction of much of the country’s agricultural and industrial heartland. Rather than meekly accepting Nazi rule, the ‘Great Patriotic War’ became a war truly that.[[28]](#footnote-26) As Chuikov, victor of Stalingrad, entrained for the Donetz and more fighting with the Nazis, he recalled thinking to himself: “Goodbye, Volga….goodbye the tortured and devastated city. Will we ever see you again and what will you be like? Goodbye, our friends, lie in peace in the land soaked with the blood of our people. We are going west and our duty is to avenge your deaths.”[[29]](#footnote-27) Thus the chief lesson of the *Barbarossa* case is that rather than the aversion to fighting anticipated by the Germans, the Russian people instead proved willing to endure depravations on an unimaginable scale, and to do so for as much time as it took for the nation’s sons to cross a devastated continent and smash their way to the German Reichstag.

*Japan’s Foolish Gamble*

 Similarly foolhardy were the assumptions Japan made regarding American preferences during the lead up to World War II. From the outset, the Japanese were confident that the West could be cowed by a display of military might and staunch solidarity with their Axis partners.[[30]](#footnote-28) Japanese forces therefore proceeded into southern Indochina in September 1940—despite warnings from America and Britain—under the assumption they “would get away with this act of aggression as easily as with previous ones.”[[31]](#footnote-29) Yet as the imperial government learned to its deep consternation, the West would not prove so easily moved. Instead, it responded decisively to Japan’s continued bellicosity. All Japanese assets in the United States and in the British and Dutch empires were frozen in July 1941, denying Japan access to all foreign goods, including oil. “The sharp counter-measures of the United States and the United Kingdom came as a surprise to the extremists and threw the moderates into confusion.”[[32]](#footnote-30) More importantly, the country was now left with just six months of aviation fuel.[[33]](#footnote-31) By virtue of their miscalculation, the militarists had now been pushed into the inevitable position of either withdrawing from its hard-won empire in China, Indochina, and Manchukuo—in effect, an admission that the aggressive foreign policy of the last decade had been a failure—or striking out in an effort to conquer the key resource territories of the region. Neither option looked particularly palatable.

 Even so, the Japanese were in a gambling mood. Sanctions had made war a reasonable, albeit dangerous, course of action. More important, however, was the confidence that if put into a position of relative weakness, the United States would not challenge Japanese hegemony in Asia. Japanese strategy therefore called for surprise air and naval attacks on US bases in the Philippines and Pearl Harbor, combined with a series of lightening offensives against the coveted resource territories of the western Pacific Rim. Together, these strikes were to establish a great empire, rich in the strategic resources necessary to expand Japan’s deficient economy—including oil, rubber, bauxite, metals, and food—and incorporating the geographic links of a security barrier, far from the Japanese homeland and from which enemy forces could be held at bay. From this unassailable position Japan could then negotiate a peace that left her a substantial portion of her gains and a dominant position in East Asia.[[34]](#footnote-32)

The chief problem of such a plan is that it completely misjudged the temper of the United States. Rather than set the Japanese on a course for relatively amicable negotiation, the surprise attacks unleashed a fury within the American people. The stiffening resolve witnessed after the invasion of Indochina in 1940 paled in comparison to the appetite for total war that now consumed the US body politic—an ordering of war preferences completely opposite to what Japanese planners had anticipated. More specifically,

“The Japanese army had persuaded the Japanese people that the democratic states were materialistic, irresolute, incapable of matching the unique Japanese spirit. They had argued, not without some plausibility, that the United States had for a decade or more shown a strong aversion to protecting its interests in the Far East by war-like measures, despite repeated provocation. They inferred that those interests were not regarded as of vital importance and that consequently in the long run a spirit of compromise would prevail.”[[35]](#footnote-33)

As Sansom observes, the Japanese appear to have been deceived by their own propaganda, for the United States showed no disposition to compromise whatsoever. Instead, America devoted itself wholesale to the war effort, achieving a degree of manpower and economic mobilization that Japan simply could not match. By 1943, for example, the US was producing ten times as many combat naval vessels as Japan and Germany put together.[[36]](#footnote-34) Once again, so much for an unwillingness to fight.

3.0 **The Promise of Cultural Understanding**

*Getting Preferences Right*

 The most obvious question this paper raises is whether or not a more careful consideration of the preferences of Russia and the United States would have ensured more successful strategic outcomes for their great rivals. It was, after all, more than cultural misunderstanding that doomed Germany’s march on Moscow. The potency of the *blitzkrieg* was also deeply undermined by the army’s dreadfully inadequate transport, repair, and basic intelligence support services.[[37]](#footnote-35) These failings would have hamstrung German efforts even if their grasp of Russian preferences was properly ordered. Moreover, what if even the most acute analysis of an enemy’s culture and its concomitant values is unable to uncover a proper appreciation of how a belligerent will respond when it actually comes to blows? The United States, for example, sat idly by as Japan swallowed ever-greater portions of the Chinese mainland. Consequently, how unreasonable was it to assume that America would defer to the Japanese, given that the possessions involved were located at such great distance from the US mainland? Both possibilities therefore raise concern that a search for cultural understanding is either fruitless, irrelevant, or both.

 The rebuttal to such wariness is straightforward. In both cases there was an abundance of evidence suggesting that the assumptions of the German and Japanese high commands were fundamentally flawed. Regarding the former, the *Wehrmacht*’s assumption that the Russians would put up little fight is inexplicable given the country’s long and violent history. Foreign invasion is not new to Russia, and each time it happens great numbers flock to meet the invader head on. Nor does such patriotism disappear after first contact with the enemy. Napoleon’s cold retreat through the despoiled Belorussian countryside stands as a testament to the deprivations Russian society is willing to endure when national survival is the goal. The same can be said of the Great War, where despite widespread officer incompetence and an economy unprepared for the demands of an industrial war, the Russian army survived a succession of calamitous defeats and continued to fight hard until well into 1917—a year which, it should be noted, saw the French army, long regarded as one of the finest of the age, begin to crack as well.[[38]](#footnote-36) What the Germans therefore utterly failed to appreciate was that if the common Russian soldier was willing to go to such lengths in the service of the unpopular Romanovs, the same could likely be said for Marshal Stalin. In other words, the immediate collapse anticipated by Halder and his associates was entirely without basis.

 The Japanese should have been on the lookout for similarly obvious cultural markers. It is true that the United States holds itself as a ‘city on the hill’, one to be kept free, in President Jefferson’s words, of “entangling alliances.”[[39]](#footnote-37) Yet careful study of American culture makes it apparent that it is not a country that is prone to half measures. When confronted by matters of dignity and honour—let alone national survival—the American response has traditionally been mobilization and commitment on an unsurpassed scale. The US Civil War provides a case in point. From the very beginning of the struggle to the end, the contending sides staked out positions that brooked no compromise. The consequence was five long years of brutal, unceasing combat. For example, on the first day of Gettysburg (1863) the 1st Minnesota regiment sustained over 80% casualties. Despite these incredibly losses, the unit’s few survivors were back in the line to receive Pickett’s charge the next afternoon.[[40]](#footnote-38) Similarly illustrative is how the North’s superior resources were used to bring the war to a close by burning wide swaths of the South to the ground. Grant’s instructions for the Shenandoah Valley campaign the intention clear. This part of Virginia was to be turned into “a barren waste…so that crows flying over it for the balance of this season will have to carry their provender with them.”[[41]](#footnote-39) Sheridan, the general put in charge of the operation, enthusiastically carried out these orders against his erstwhile fellow citizens. “The people [of the South],” he concluded, “should be left nothing but their eyes to weep with over the war!”[[42]](#footnote-40) Japan’s failure to recognize this preference for victory over all other considerations would prove to be its great undoing.[[43]](#footnote-41)

 We can see, then, that a better appreciation of cultural circumstances would have, at the very least, given the Germans and Japanese a better sense of just how difficult these wars—which they both assumed would be limited in nature—were going to be. They need only have looked.

*The Case for Cultural Immersion*

A deep understanding of a potential adversary's values and social preferences is crucial, given that tactics and strategy derive from cultural circumstance. Of course geopolitical conditions, such as the relative amount of resources at one’s disposal, matter a great deal. But so too does the cultural conditioning of what military practices are acceptable and which are not. In World War II, Allied armies and publics felt little compunction towards firebombing entire Axis cities. So too did they remain relatively inured to the incredible aircrew losses these bombing raids incurred.[[44]](#footnote-42) Yet both screamed in moral outrage when, in the relatively rare circumstances, downed pilots were summarily executed upon capture by enemy forces. This disconnect—again, something predicated on cultural grounds—between what is militarily acceptable to some and not to others has never been more acute than in today’s age of international terrorism.

The lesson of this paper must therefore not be lost on those tasked with a ‘red team’ or ‘opposing force’ (OPFOR) role. After all, red teaming is about predicting the most likely path a prospective opponent will pursue. If culture informs the preferences of those paths, it is absolutely crucial that red teamers are in a position to be able to imitate this hierarchy. More to the point, being able to do so will require an emphasis on cultural immersion. Again, the simple rational actor approach so often adopted in security studies is insufficient. It is not enough to assume all belligerents will behave according to a like-minded hierarchy of values. For red teamers to do their jobs properly, they must be able to act in an accurate reflection of the preferences held by the potential adversaries they are mimicking. This, in turn, requires a red teamer to:

"marinate herself in the minutiae of that institution—to experience its customs and practices, its successes and its failings, as those who live it every day do. This immersion sharpens our intuitions and provides innumerable clues about how the institution fits together and how it adapts to its environment.”[[45]](#footnote-43)

As such, while this paper has emphasized the historical dimension of cultural awareness, for OPFOR role players to acquire an even broader cultural understanding would be better still. Mores and values are not always easily communicated in books. Indeed, preferences can sometimes be hard to order without direct observation. It is therefore best, whenever possible, to encourage red teamers to travel abroad, enabling them to witness such practices first hand. Doing so, however, requires proper language training to be fully effective, raising the degree of cultural immersion further still. More to the point, extensive cultural participation is not possible when thwarted by an unassailable language divide. Red teamers therefore require the training and resources necessary to overcome these obstacles.

 We can make this task slightly easier by outlining the key questions such cultural immersion needs to answer. The first and most obvious deals with how high preferences regarding the willingness to fight rank. History demonstrates a remarkable consistency in the inclination to defend one’s homeland, even as political systems pass from one regime to the next. The Russian soldier, for example, was not without complaint of both Tsar Nicholas and Stalin, but fight hard for them both he did. This indicates that the cultural bonds of community exist as a powerful variable, one that must be uncovered if a potential opponent's moves are to be correctly anticipated. Second is the need to uncover the extent of loss aversion a society faces.[[46]](#footnote-44) In other words, to what degree does a particular social context find losses more painful than gains pleasurable. The reason here is that the greater the abhorrence of loss and humiliation, the greater the willingness to take risks. As was witnessed throughout the long, bloody 20thC, when leaders undertake perilous gambles in the name of security, unmitigated tragedy is the all too frequent result.

1. Sun Tzu, *The Art of War*, Samuel B. Griffith (trans), (Oxford: Oxford University Press, 1971), chpt 3. [↑](#footnote-ref--1)
2. Of course technology long preceded science, since one can develop new and better machines by trial and error. But even here, it is not until science was married with technology that the latter’s progress truly took off. John Gribbin, *Science: A History*, (Penguin, 2003), pxx. [↑](#footnote-ref-0)
3. See, for example, Kenneth Arrow, *Social Choice and Individual Values*, (New Haven, CT: Yale University Press, 1951); Anthony Downs, *An Economic Theory of Democracy*, (New York: Harper, 1957); William Riker, *The Theory of Political Coalitions*, (New Haven: Yale University Press, 1962); and Mancur Olson, *The Logic of Collective Action*, (Cambridge, Mass.: Harvard University Press, 1965). [↑](#footnote-ref-1)
4. It is only the difference of absolute and relative gains that divides them, hence the different expectations regarding the possibility for cooperation in the international system. See Joseph M. Greico, *Cooperation Among Nations: Europe, America, and Non-Tariff Barriers to Trade* , (Ithaca: Cornell University Press, 1990). [↑](#footnote-ref-2)
5. Of the relatively scarce literature on this subject, Thomas C. Schelling, *Arms and Influence* (New Haven: Yale University Press, 1966) and Alexander L. George, D. George, and W.E. Simons, *Limits to Coercive Diplomacy* (Boston: Little, Brown, 1971) are the most important. For a more recent treatment, see Lawrence Freedman (ed), *Strategic Coercion: Concepts and Cases*, (Oxford: Oxford University Press, 1998). [↑](#footnote-ref-3)
6. Peter Viggo Jakobsen, “Coercive Diplomacy,” in Alan Collins, *Contemporary Security Studies*, (Oxford: Oxford University Press, 2010), p 287. [↑](#footnote-ref-4)
7. Robert Jervis, *Perception and Misperception in International Politics*, (Princeton University Press, 1976). [↑](#footnote-ref-5)
8. Daniel Kahneman, "A perspective on judgment and choice: Mapping bounded rationality". *American Psychologist* 58 (9): 697–720. [↑](#footnote-ref-6)
9. Robert Jervis, "War and Misperception," *The Journal of Interdisciplinary History*, Vol. XVIII: 4 (Spring 1988) p675-700. [↑](#footnote-ref-7)
10. Jervis, “War and Misperception.” We will return to the latter in the case studies below. [↑](#footnote-ref-8)
11. Herbert Simon, *Models of Man*, (New York: Wiley, 1957). [↑](#footnote-ref-9)
12. James D. Fearon, "Rationalist explanations for war," *International Organization* 49 (3) (1995): 379-414. [↑](#footnote-ref-10)
13. Cohen 1997. [↑](#footnote-ref-11)
14. Jack S. Levy, "Misperception and the Causes of War: Theoretical Linkages and Analytical Problems," *World Politics*, Vol. 36, No. 1 (October 1983), p82-87. [↑](#footnote-ref-12)
15. Frank C. Zagare, "Rationality and Deterrence," World Politics, Vol. 42, No. 2 (January 1990), p238-260. [↑](#footnote-ref-13)
16. Zagare, “Rationality,” p243. [↑](#footnote-ref-14)
17. As the war progressed, Goering found himself at odds with Himmler and Heydrich, concerned as he was about the economic waste of the genocide program. Meanwhile, during the Stalingrad calamity Hitler not only admitted to Himmler the possibility of losing the war, but that because of this the pace of the genocide should be increased. “Should we win the battle, no one will ask us afterwards how we did it. Should we lose, then we shall at the very least have hit decisively those subversives. Therefore, Himmler, I have after much deliberation decided to blot out once and for all the biological bases of Judaism, so that if the Aryan peoples emerge weakened from this conflict [that is, if Germany loses the war with Russia], at least a crippling blow will have been dealt to those other forces.” Cited from M.J. Cohen and John Major, *History in Quotations: Reflecting 5000 Years of World History*, (London: Cassell, 2006), p839. See also Raul Hilberg, *The Destruction of the European Jews*, (New York: Holmes & Meier, 1985). In the end, of some 10 million European Jews, some 6.5 million were murdered, to say nothing of millions of other Poles, Gypsies, and political prisoners. John Pimlott, *Atlas of World War II*, (Running Press, 2006), p42. [↑](#footnote-ref-15)
18. More specifically, these preferences can be observed in terms of what specific ends are to be achieved, the behaviours deemed acceptable for achieving them, and the types and degrees of costs willing to be endured. [↑](#footnote-ref-16)
19. Cited in Pimlott, *Atlas* p80. [↑](#footnote-ref-17)
20. Cited from John Keegan, *The Second World War*, (Penguin, 2005), p174. [↑](#footnote-ref-18)
21. Cited from Keegan, *Second World War*, p174. [↑](#footnote-ref-19)
22. Alan R. Millett and Williamson Murray (eds), *Military Effectiveness*, 3 Vols. (Cambridge University Press, 2010 []), p134. [↑](#footnote-ref-20)
23. Cited from Millett and Murray, *Effectiveness*, p123. [↑](#footnote-ref-21)
24. Cited from Millett and Murray, *Effectiveness*, p125. Halder is similarly straightforward elsewhere. “We under-estimated Russia; we reckoned with 200 divisions, but we have already identified 360.” Cited from B.H. Liddell Hart, *The Other Side of the Hill*, (London: Pan Books, 1983), p260. [↑](#footnote-ref-22)
25. Cited from Millett and Murray, *Effectiveness*, p124. [↑](#footnote-ref-23)
26. By December 31, the Red Army the Soviets had lost about 1.6 million men (a total of 229 divisional equivalents), yet simultaneously raised 821 divisional equivalents, leaving total army strength at 4.2 million, organized into 43 armies. David Glantz *et al*, *Slaughterhouse: The Handbook of the Eastern Front*, (Aberjona Press, 2004), p18. [↑](#footnote-ref-24)
27. See, for example, F.W. von Mellenthin, *Panzer Battles: A Study of the Employment of Armour in the Second World War*, (Old Saybrook, CT: Konecky & Konecky, 1956). [↑](#footnote-ref-25)
28. Richard Overy, *Russia’s War: Blood on the Snow*, (New York: TV Books, 1997). [↑](#footnote-ref-26)
29. Cited from Keegan, *Second World War*, p237. [↑](#footnote-ref-27)
30. Sir George Sansom, “Japan’s Fatal Blunder,” in Robert J. Art and Kenneth N. Waltz, *The Use of Force*, (Lanham: Rowman & Littlefield, 2009), p167-78 [originally in *International Affairs*, Vol. 24, no. 4 (October 1948), p543-555]. The Tripartite Pact was concluded in September 1941. [↑](#footnote-ref-28)
31. United States Strategic Bombing Survey, cited in Sansom, “Blunder,” p170-1. [↑](#footnote-ref-29)
32. Sansom, “Blunder,” p170. [↑](#footnote-ref-30)
33. Keegan, *Second World War*. [↑](#footnote-ref-31)
34. Sansom, “Blunder,” p172. [↑](#footnote-ref-32)
35. Sansom, “Blunder,” p172-3. [↑](#footnote-ref-33)
36. John Keegan, *Atlas of World War II*, (New York: HarperCollins, 2006), p181. [↑](#footnote-ref-34)
37. For the German high command’s general disdain for logistics during *Barbarossa*, see Look up Millett and Murray, “Effectiveness,” p17 fn#36. [↑](#footnote-ref-35)
38. See, for example, W. Bruce Lincoln, *Passage Through Armageddon: The Russians in War and Revolution, 1914-1918*, (New York: Simon & Schuster, 1986). [↑](#footnote-ref-36)
39. Thomas Jefferson, First Inaugural Address, (March 4, 1801). [↑](#footnote-ref-37)
40. Geoffrey Parker (ed), *Cambridge History of War*, (Cambridge University Press, 2005), p225. [↑](#footnote-ref-38)
41. Cited from Parker, *History*, p237. [↑](#footnote-ref-39)
42. Cited from Parker, *History*, p237. [↑](#footnote-ref-40)
43. Further evidence can be found in the Great War, a conflict that did not diretly engage the United States as did the Civil War or World War Two. Even so, once America committed in 1917 the results were astounding. The US army went from a mere garrison force to a powerful organization more than two million strong in little more than a year. Just as powerful as these raw numbers was that although the fresh US troops were “enthusiastic rather than efficient,” they “fought with a disregard for casualties scarcely seen on the Western Front since the beginning of the war.” Keegan, *First World War*, (Vintage Canada, 2000), p409, 411-12. [↑](#footnote-ref-41)
44. The British and American air forces lost a total of 21,900 aircraft and 158,000 flying personnel in World War II. The cost on Germany was even greater. Vast areas of urban Germany were devastated, and an estimated 420,000 Germans were killed in the raids, the great bulk of these losses comprising women, children, and old men. John Keegan, *Atlas of World War II*, (New York: HarperCollins, 2006), p121. [↑](#footnote-ref-42)
45. For more on this ‘verstehen’ approach, see Robert Putnam, *Making Democracy Work*, (Princeton, NJ: Princeton University Press, 1993), p12. [↑](#footnote-ref-43)
46. Excellent work on loss aversion includes Kahneman, “Bounded Rationality”; and Jack Levy, "Loss Aversion, Framing Effects, and International Conflict," in *Handbook of War Studies II*, Manus Midlarsky (ed), (Ann Arbor: University of Michigan Press, 2000), p193-221. [↑](#footnote-ref-44)