

# THE GREAT DEBATE: EFFECTS OF TECHNOLOGY AND CULTURE ON STRATEGY

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## INTRODUCTION

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In 1938, as the Second Sino-Japanese war was occurring, Mao Zedong wrote: “The richest source of power to wage war lies in the masses of the people”, blaming the unorganized state of the Chinese masses for the Japanese occupation (Mao, 1938: 186). The same year, he added: “Political power grows out of the barrel of a gun” (Mao, 1938a: 224). In 1944, as the war was coming to an end, China’s revolutionary leader stated that “an army without culture is a dull-witted army, and a dull-witted army cannot defeat the enemy” (Mao, 1944). From asserting that technology (organizational and material) was fundamental to victory, to declaring that culture was crucial to the enemy’s defeat, Mao Zedong’s discourse regarding the relationship of technology and culture to strategy was deeply altered. In light of Mao Zedong’s discourse on war, it seems essential to query: what has a greater effect on strategy, culture or technology?

Strategy is defined as a “long-range plan for achieving something or reaching a goal” (Cambridge Dictionary, 2019). Among the many factors influencing the development of a strategy, two variables hold a significant importance and bear a strong relationship - culture and technology. Culture being “the way of life, especially the general customs and beliefs, of a particular group of people at a particular time”, and technology being “the methods for using scientific discoveries for practical purposes” (Cambridge Dictionary,

2019).

Due to the amount of historical examples allowing this query, the challenge is to select case-studies that allow for reflection upon different types of warfare and strategy. Asia is a continent that not only held some of the most powerful armies, such as the Mongol and Soviet armies, but also faced many types of warfare. From conventional forms of conquests and unconventional guerrilla warfare to proxy-wars, the Asian continent possesses a diversity of historical instances that allow the study of this query. The first part of this discussion will focus on the birth and rise of Genghis Khan’s Mongol Empire. Being the largest contiguous empire having ever existed in recorded history, its study will provide a neutral understanding of the positive and negative effects of culture and technology on strategy. A second part will target the USSR, as it had to overcome its technological backwardness and develop a unique Cold War strategy. A third part will contrast Vietnamese strategy during the First Indochina War, and Japanese strategy during World War II’s Japanese-American War, at which occasion an emphasis on their strategic culture will be drawn.

## THE PASTURELAND’S CHILDREN: MONGOLS AND THE CULTURE OR FATIGUE

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“Of all troops in the world, [the Mongol troops] are those that endure the greatest hardship and fatigue, and which cost the least” (Polo, c.1300/1997: 260-261).

In 1206, after having unified the various nomadic tribes cohabiting on Mongol territory, Genghis Khan was proclaimed Ruler of All Mongols. The birth of the Mongol Empire would result in a deep reorganization of Mongol society into a power structure capable of expanding itself on different fronts simultaneously. To understand its shift from a territory occupied by nomadic tribes to the largest contiguous empire that ever existed, it is necessary to understand its strong cultural heritage.

Before the rise of the Empire, the geographic conditions of Mongolia imposed a pastoral nomadic culture upon its population. This pastoral nomadic culture was one of the factors which would allow for the creation of the Mongol Empire. The Mongols' nomadic lifestyle traditionally held elements of military training. From an early age, children were taught horsemanship, archery, and hunting. Not acquired with the intent to prepare for combat, these skills were basic steppe surviving skills. The nomadic lifestyle also implied seasonal migration. As Genghis Khan reformed Mongol society into 'The Whole Mongol Nation' (*Qamuq Mongol Ulus*), what had been a traditional nomadic society became a militarily, highly organized, supra-tribe (May, 2007/2016). By introducing the decimal system to the organization of the population, Genghis Khan created a "new social structure in which military units of a thousand men replaced traditional tribal identities and, in the process, transformed a steppe confederation into an army" (May, 2007/2016: 27). The use of such a system revolutionized Mongol society as it allowed administrative organization, conscription for war-waging, tax collection (greatly fuelling conquests), and strict discipline (allowing

coordination and annihilation of the enemy's armed forces).

Strengthened by its organization, the assembly of a Mongol army was eased by the cultural heritage of the nomadic pastoral culture. Only very light training was required to the newly conscripted warrior as most men were already highly trained horse-archers. Pastoral nomadic hunting techniques, such as the *nerge*, were used as tactics on the battlefield and were thus operated with routine perfection by the Mongol warrior (Aigle, 2015). This culturally-induced highly mobile form of warfare proved to be decisive in the success of the Mongol Empire. Consequently, the warrior-like lifestyle of the nomadic tribes allowed the time and cost-effective construction and maintenance of an army. Also, it enabled the mobilization of troops at a competitive pace in times of necessities.

The decimal organization of the Mongol Empire, combined with cultural assets of the nomadic lifestyle, resulted in an overwhelming Mongol strategic superiority over its neighbours. Although nomadic culture held positive effects on strategy, the Mongol Empire also had to overcome its culture's negative effects on strategy in the pursuit of securing Mongolian steppes, eliminating external threats, and, secondarily, dominating sedentary culture.

As the nomadic lifestyle concealed the full potential of the Mongol warrior to steppe warfare, numerous conquests came with the imperative to adapt the modes of warfare at the price of impairing Mongol strategy. Even though nomadic seasonal migrations prepared soldiers to maneuver and coordinate movement over great distances, geographical conditions and enemies' strategy could alter their capacity to maneuver in enemy territory.

As the Mongol warrior went to war with up to five horses, the availability of pastureland was critical to their progress (May, 2007/2016). This cultural limitation to their conquest and strategy caused one of their major defeats. For example, when the Mamluks, an army composed mainly of Turk slaves who conquered several Muslim states during the Middle-Ages, used a scorched earth strategy in a terrain already deprived of great concentrations of pastureland, the Mongols could neither advance nor hold the conquered territories, being forced to retreat (May, 2007/2016). Likewise, the presence of mountains, dense forests, bodies of water, or fortification delayed or prevented their conquests and, consequently, their strategy.

In many cases, these drawbacks were overcome by the integration of foreign artisans, engineers, and fighters into the Mongol armed forces. For instance, Muslim engineers were integrated into the troops and introduced the counter-weight trebuchet in order to defeat the Jin Empire's fortifications. Additionally, Chinese and Korean engineers were responsible for creating a Mongol navy to defeat the Song Empire. Geographical drawbacks could also be reduced by the use of psychological warfare which, for instance, allowed the conquest of the Khwarazmian Empire (Persia) with almost no resistance, also having the advantage of effectively sustaining manpower (May, 2007/2016).

Lastly, the lethality of the light armored horse-archers came to erode itself when facing the Western and Far East war environments. Knights had heavier armours, the damp weather made the Mongol bow fragile, and the presence of special forces dedicating their entire life to war were all factors that greatly threatened Mongol

strategy.

The study of the Mongol Empire's tactics provides remarkable examples of the positive and negative effects of culture and technology on strategy. Culturally, the warrior-like population of the Mongol Empire represented a major advantage from the rise of the Empire until its end. Technologically, the use of the decimal system, and the integration of foreign engineers to their troops, allowed the Mongol army to overcome some of its cultural drawbacks. Overall, the Mongol Empire outstandingly used culture and technology to the benefit of their securing and conquest strategy, although some limitations stem out from their cultural heritage.

#### IN THE CORNER: THE EASTERN WAY AND RUSSIAN CULTURAL CAPITAL

"The history of the old Russia was the continual beating she suffered because of her backwardness. She was beaten by the Mongol Khans. She was beaten by the Turkish Beys. She was beaten by the Swedish feudal lords. She was beaten by the Polish and Lithuanian. She was beaten by the English and the French capitalists. She was beaten by the Japanese barons. All beat her – for her backwardness [...] We are fifty or a hundred years behind the advanced countries. We must take good distance in ten years. Either we do it or we shall be crushed". (Sakwa, 1999: 187-188)

The 1917 Bolshevik revolution, from which the USSR was born, illustrates a shift in politics as well as in Soviet attitude towards Russian history. Determined to regain a position of power, the newly implemented Marxist-Leninist doctrine offered a realist understanding of International Relations. Soviet military doctrine became closely linked to the socio-political realm and underwent

major doctrinal changes. In other words, a new strategic culture was put in place, with three war laws defining peacetime strategic goals: “insuring that the Soviet Union superior forces at the start of the war; insuring that the potential war capabilities of the Homefront are always maximized for the support of war; insuring that the Communist party maintains complete political control” (Glantz, 1991/2005: 4). These communist military policies represent the beginning of a new line of strategic decisions aimed at breaking away from their “long history of armed struggle” (Glantz, 1991/2005: 50) and at carrying forward the revolutionary mission inherent to Marxist-Leninist doctrine.

Consistent with the Communist Party's strategic aims, the 1929 Field Regulation (*Ustav*), preparing the effect of the integration of future mechanization to the Soviet forces, became effective once Joseph Stalin, leader of the Communist Party, enforced the collectivization and industrialization of the Soviet Union (Stalin's Five-Year Plan) (Glantz, 1992/2004). Consequently, the culturally and politically driven implementation of these organizational paraphernalia was followed by the renaissance of Soviet military thought and technology. As a result, the Soviet armed forces increased by more than twice their original size, and by the mid-thirties, the Soviets implemented the peacetime maintenance of regular forces, the Red Army.

Despite the revitalization of the Soviet armed forces, half of the Soviet peacetime standing forces were annihilated by Nazi Germany during the first six months of the Second World War. The development of new supporting units into the Soviet force structure, such as tank destroyer artillery regiments, provided “the

overwhelming firepower superiority” (Glantz, 1991/2005: 123) necessary to lead a counteroffensive and fight all the way to Berlin.

The beginning of the Cold War marks a turn in Soviet strategy. Having acquired the technological means necessary for the creation of a *cordon sanitaire* around the USSR's borders, Soviet strategy could finally undertake its second main strategic goal: the international spread of communist ideology (Glantz, 1991/2005). Although still inferior to the United States because of its lack of nuclear weaponry, the Soviet Union deterred “potential United States use of nuclear weapons by holding central and western Europe hostage” to its ground power (Glantz, 1991/2005: 162). This inferiority would quickly be faded by the Soviet military revolution and the 1961 nuclear test of the Tsar Bomb, the most powerful nuclear device in history.

Having proven its superpower character, the Soviet Union could engage in the support of wars of national liberation. The “breakdown of old colonial empires and the emergence of a third world” allowed the instillation of the socialist revolution (Glantz, 1991/2005: 190). Loyal to the original Marxist-Leninist doctrine, the 1968 Brezhnev doctrine “reserved the right militarily to maintain the socialist system where it already existed [...] and to ‘aid’ progressive governments against imperialism” (Glantz, 1991/2005: 205). This period represents the high point of Soviet influence with the consequent development of proxy-wars. From this point on, the Soviets sought to intimidate and deter potential opponents, and if they failed, to be able “to fight and win at all levels of potential war: strategic nuclear, theatre nuclear, theatre conventional, local, short wars, and protracted wars” (Glantz, 1991/2005: 245).

From the creation of the USSR to the fall of the

Berlin Wall, Soviet strategy was ultimately defined by the cultural need to break away from being subject to foreign aggression. Technology allowed Soviet strategic goals to be fulfilled and further developed on the basis of their consistent Marxist-Leninist-motivated strategy. Therefore, the securing of Soviet territory was achieved, not only by the reversal of their technological backwardness, but also by the extension of their influence into bordering countries and beyond. Technology allowed the Soviets to pursue a strategy defined by a political line replete with cultural expectations which, to this day, remains constant.

#### REMOTE RESISTANCE: VIETNAMESE WAY OF WAR

“The lack of common cultural forms can show itself in such a way that violence-limiting rules and codes are not known or not observed by either side and that transcultural wars demonstrate a tendency to escalate and become total”. (Hohrath, 2006: 250)

Vietnamese history stands out for its striking ability to repel aggression. In the past millennium, Vietnam successively resisted powerful opponents, such as the Song Empire, the Mongol Empire (three times), and the Qing dynasty. Vietnam’s “heroic tradition of struggle against foreign aggression” would reiterate itself during the First Indochina War, opposing France and Bao Đại’s Vietnamese National Army against the Viet Minh, led by Ho Chi Minh, and the People’s Army of Vietnam, led by Võ Nguyên Giáp (Võ Nguyên Giáp, 1961/2001: 11; Dalloz, 1991).

In 1945, the Democratic Republic of Vietnam became independent. Soon after its

independence, the French Expeditionary Corps overthrew the North Vietnamese government and declared restoration of French authority. Conscious of its overwhelming material and technological inferiority, the Vietnamese resistance retreated to remote rural areas and developed a three-stage long-term strategy: Contention, Equilibrium, and Counteroffensive (Võ Nguyên Giáp, 1961/2001).

The stage of Contention involved the use of propaganda, the hiding of the central government in mountainous areas, and the engagement of the resistance in a guerrilla warfare “waged with good or mediocre material”, and aiming at equipping the resistance “at the cost of the enemy” (Võ Nguyên Giáp, 1961/2001: 29). In other words, the Vietnamese resistance applied its slogan: “to build up our strength during the actual course of fighting” (Võ Nguyên Giáp, 1961/2001: 29).

The stage of Equilibrium was marked by the Agrarian Reform, also known as the 1953 Land Reform. This reform, although extremely brutal towards landowners, allowed the Vietnamese resistance to revitalize its war efforts, and to counteract on its economic backwardness.

The stage of Counteroffensive was launched in response to the 1953 French Navarre Plan, which prepared the full occupation of North Vietnam within eighteen months. Consequently, scattered all over the territory, French forces became more exposed to guerrilla warfare tactics. The Vietnamese resistance, having regained major parts of the territory, shifted to a mobile type of warfare, allowing for the mobilization and concentration of more units, thus granting overwhelming manpower. The French were ultimately defeated at the 1954 Battle of Dien Bien Phu.

Vietnamese history brims with examples of culturally driven armed forces repelling technologically superior aggressors. Although the Vietnamese were remarkably successful throughout their military endeavour, fighting in this type of war setting requires drastic societal reforms. The case of the World War II Japanese-American War exemplifies the importance of not overestimating the role of culture in the making of strategy.

Mitsuo Fushida, the Japanese captain known for leading the first attacks on Pearl Harbor, wrote in a report that the “Japanese believed the Americans to be soft, self-indulgent, and incapable of serious sacrifice; therefore, [that] Americans would tire and withdraw from a contest with the far tougher and committed Japanese” (Hanson, 2001/2002: 237). Culturally heavily influenced by codes of honors, such as *Bushido* and *Hagakure*, and by the Shinto religion, imposing “absolute obedience to superiors” (notably the emperor), the Japanese viewed surrender as dishonourable and “soldiers were to find reward in death” (the rate of Japanese death was higher than 98% during battles) (Lynn, 2003: 247). Rather than using the American Orange Plan to their advantage, for instance by hastening the construction of fortifications around Japan, they relied solely on the belief of cultural superiority (Iriye, 1981). Unfortunately, “without these prejudiced and fatally incorrect convictions, Japanese war plans did not make sense, since Tokyo always realized that the advantage of numbers in manpower and material always rested with the United States” (Lynn, 2003: 237). This entirely culturally-driven strategy caused their defeat.

The comparative study of Vietnam and Japan demonstrates the importance of culture in

strategy. Pre-war cultural conditions will shape the form of warfare which will take place and dictate the technological means necessary to the furtherance of war and, potentially, of victory. The Vietnamese, technologically far less developed than the Japanese due to prior French colonisation, succeeded in enforcing reforms and strategic actions necessary to their long-term strategy. On the other hand, the Japanese relied on the cultural conviction that Japanese fighters were superior to any fighter, regardless of its technological resources. Much like the Assyrians in 612 BC, the Japanese’ “great success over a long period of time created the deep-seated conviction that the heartland was inviolate and that warfare was best executed offensively” (Lee, 2011: 28). These cultural assumptions combined with technological inferiority ultimately condemned the Japanese to defeat.

## CONCLUSION

In light of the historical examples analysed, it is possible to assert that both culture and technology are of critical importance to the making of a successful strategy. As demonstrated by the Mongol Empire, both variables have negative and positive effects on strategy.

To the Mongol Empire, Soviet Union, and Democratic Republic of Vietnam, organizational technologies – such as the use of the decimal system, the enforcement of collectivisation, and reforms – were inescapable societal changes necessary to the well-being of technologically inferior states’ strategy. These organizational technologies can take the form of simple societal shifts and extend to the complete militarisation of a polity. Material technologies are also essential, as even though they may not be necessary from the starting point of war, their

development will allow the pursuit of a strategic goal otherwise unattainable – like securing the Mongolian steppes, the Russian homeland, and Vietnamese territory.

On the other hand, culture determines the aims of a strategy, influences which modes of warfare will take place during initial periods of war, and will keep influencing strategy throughout the war.

So, what has a greater effect on strategy: culture or technology? Culture has the greater effect on strategy as it invariably defines the expected outcome of war and participates in the nature and method of warfare adopted. However, technology should not be underestimated as it is a necessary tool to adapt to its enemy and pursue its own culturally-induced strategic goals. In a few last words, technology is a means to an end; whereas culture is precisely what defines the end.

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