Economic Causes of War and Peace

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Financial Capital An ownership claim on real wealth. Stocks, bonds, bills of exchange, and money are examples.
Free-Rider Problem Within a market economy, the problem of not being able (without undue costs or appeal to government) to exclude someone from receiving benefits that others have paid for. It results from the failure of markets to efficiently allocate resources in certain instances.
Game Theory A procedure for mapping the strategies and corresponding payoffs available to competing participants such as two firms, a firm and a union, or two nations where their decision making is interdependent.
Gene-Culture Co-Evolution An evolutionary theory that argues that genetic change and cultural change mutually affect each other. This is the dominant view among evolutionary biologists of how the human species has evolved.
Negative-Sum Game Where the sum of losses exceed the sum of gains for all parties taken together. War is typically an example of a negative-sum game.
Neolithic Revolution The beginning of humanity’s adoption of agriculture about 10,000 years ago. It was the greatest economic revolution in human history. It was a precondition for the evolution of civilization.

Overview

On the most general level, it is hardly surprising that economic forces have been significant in setting the stage for war and peace, since humans are necessarily and fundamentally economic beings. In order to survive and reproduce in a world of scarcity, humans must struggle with nature to meet their needs. But this very condition of scarcity also establishes a reason why groups of humans might fight for limited resources.

Yet even though economics and war seem related, no general theory of war and peace has evolved that is widely embraced within the economics profession. This may be due in part to the fact that economists are generally concerned with resource allocation through peaceable means – especially markets – and have not given a great deal of study to the economic causes of war and peace. And, those who have attempted to develop broad general theories of war and peace have not managed to convince their colleagues – much less the wider body of scholars who study the domain – of the explanatory power of their approaches.

That is, the effectiveness of one agent’s strategy, depends upon the decisions taken by the other agent. Game Theory is a procedure for mapping the strategies and corresponding payoffs available to competing participants such as two firms, a firm and a union, or two nations where their decision making is interdependent.

During the earliest part of human existence economic surpluses were extremely meager such that war offered limited economic benefits. However, with the rise of agricultural society, war came to offer more substantial economic payoffs to the victors. Indeed, for likely victors, war could be more economically beneficial than economic production.

Yet war is a negative-sum game. That is, the economic gains of the winner are less than the losses to all participants taken together. Therefore, peace has always offered a higher collective payoff. There has always been an economic motivation for peace. Where the outcome is obvious, it may be better for the likely losers to bribe the likely winners not to attack.

It must be emphasized, however, that because humans are social beings, the motivations for war or peace are more complex than such mere calculation of advantage. Indeed, as society became more complex, so too did these motivations.

In any event, the evolution of capitalism eventually changed the equation: economic production came to offer...
greater benefits than waging war. The economic benefits of peace increased. The technological sophistication and social coordination that accompanied the maturation of capitalism made war increasingly destructive. Indeed, the level of destructive capacity of potential combatants eventually came to mean that even a victor would lose economically. Yet even as war became ever more destructive, and hence ever more economically irrational, it continued all the same. However, in the latest chapter of humanity, a major war has come to mean potential species suicide, and this, combined with the critical self-interested individualism that ever-expanding capitalism nurtures, provides grounds for optimism that major wars belong to the past.

Yet if the threat of major wars seems attenuated, this does not appear so true of local and more limited wars, especially in the less-developed world. Participants in these wars have often been funded and armed by the world’s major powers. These wars are often driven by population pressures, ethnic hatred, and a struggle for control over resources. Also, the superpowers, following their own geopolitical and economic interest, have frequently intervened militarily in the internal workings of Third World nations. Some of these external incursions have been especially violent and costly in terms of human lives, some major examples being the US in Vietnam, the Soviets in Afghanistan, and more recently the Russians in Chechnya and the US in Iraq.

To gain a broad appreciation of the manner in which economic forces have generated the conditions for both war and peace, it is useful to survey broadly the history of humanity. To make this task manageable, this history will be divided into several stages of economic development. Surveying this history will constitute the first part of this article.

The second part will examine the question of whether war is natural. Part three will briefly survey the spectrum of theories that economists have formulated concerning war and peace. Part four will focus on the social dynamics of peoples at war and peace. The concluding section will look at the future potential for peace from an economic perspective.

**A Brief History of the Economic Causes of War and Peace**

As human culture has evolved, the specific economic causes of war and peace have not only varied, they have also become increasingly complex. Consequently, a useful overview of the topic can be gained by briefly examining war and peace over the historical stages of economic development. As will become evident, for much of human history – indeed until rather recent times – there was no clear distinction between an economy and warfare.

**War and Peace among Hunters and Gatherers**

Hunters and gatherers were typically nomadic. They would hunt and gather an area until it was fairly well picked over and then move on, often following the migratory patterns of animals. Because of their nomadic ways, foragers could not accumulate significant material wealth. What material wealth they might possess would be in the form of crude primitive weapons and tools, perhaps clothing and hides for shelter, and ornamental jewelry. Such meager material wealth offered groups little incentive to attack so as to steal others’ possessions.

This does not mean, however, that hunting and gathering peoples did not war with each other. Indeed, the personal and social skills necessary for bringing down prey were highly suited for war. And there were motivations for belligerence toward other groups. They might fight for women, or for hunting and gathering rights to specific territories.

Until fairly recently, the dominant view was that such warring was quite limited in scope and damage was unlikely to be severe. The reasoning was that unless there was a shortage of promising hunting and gathering territory, groups would not so readily risk death in battle. An economic form of reasoning was believed to have prevailed, one balancing the risk of death from starvation against death in battle. And because groups could usually move on to other territories, conflict was believed to have been more in the form of bluffing, an attempt to convince the opposing group of their fighting superiority and their willingness to do battle.

This highly ‘economistic’ view is now challenged. Evidence suggests that warfare in pre-agricultural societies was incessant, driven more by the sexual rewards of being a successful warrior than by economic advantage. Those warriors who had succeeded in killing an enemy sired more children, thereby passing more of their genes into future generations. In this manner, a genetic proclivity for warlike behavior was presumably selected. This proclivity would work even should a warrior be killed. Most hunter-gatherer societies were patrilocal. Wives are sought from outside the band and moved to live with the husband’s family. This means that most of the males in the band were relatives. Thus if one were killed, some of his genes would still pass into future generations. Interestingly, our closest primate relative, the chimpanzee, whose genome is 99% identical to ours, are also patrilocal and share our earlier propensity for murderous raids on other groups. None of this, of course, negates the economic benefits of successful warfare. Annihilating one’s enemies meant reduced competition for scarce resources.
To minimize risks, such warfare was apparently carried out as raids, ambushes, and surprise attacks. The ideal was to gain or protect territory and to annihilate or exterminate the opponent so as to preclude revenge. According to anthropologist Lawrence Keeley, 65% of pre-agricultural societies were at war continuously, and 87% fought more than once a year. They killed their enemy, taking no prisoners, excepting perhaps women. It has been estimated that about 30% of males were killed in warfare (about the same rate as for chimpanzees).

War and Peace in the World of Early Agriculture

Although the adoption of agriculture – the so-called neolithic revolution – is typically dated to about 10,000 years ago, it did not begin of a sudden. Groups planted crops at first to supplement food from hunting and gathering. Nor was agriculture chosen because it seemed to be a superior mode of existence. In fact, evidence suggests that given the choice, hunter–gatherers will not voluntarily adopt agriculture. Instead, it is generally believed that the adoption of agriculture was forced by the decline of productivity in hunting and gathering as populations expanded. It was over-hunting and over-gathering, perhaps combined with climatic changes and new technologies, that made necessary the adoption of agriculture.

Agriculture means greater human command over the physical world. Rather than foraging for food, humans gained a greater degree of control over their food sources. But agriculture introduced a new problem of major importance. Agriculturalists do not live hand-to-mouth. Instead, they invest long periods of labor in their future food supply. They must await the harvest, or wait until their animals have birthed young and nurtured them to an independent age. The problem is that marauders can sweep in and steal the harvest or poach their herd animals. And after they have done so, the victims are highly vulnerable to starvation. Consequently, the adoption of agriculture created a need for effective defense.

Agriculturalists needed to defend their investment in their future food supply, even to their deaths, since they would likely starve if the marauders should win. The existence of a saved food supply, whether in grains or animals, made war far more economically attractive. Harvests and herd animals could present all but irresistible pickings. Agriculture created greater differentials in group sizes, division of labor, and technological sophistication. Clear military superiority could well enhance the chances of plundering raids, or the ability to withstand such raids.

Yet if agriculture created surpluses worth stealing, it also greatly increased the potential benefits of trade. A proclivity for trust and coordination was rewarded with the economic benefits of increased trading. Humans were encouraged to calculate the costs and benefits of cooperation with nonkin others.

Pastoral Nomadic Horsemen and Continual War

One form of agriculture – pastoral nomadism – became especially prone to warlike behavior. Pastoral nomads herded animals from one grazing area to another. Once horses became domesticated and nomads began moving about on horseback, they became ferocious warriors. Their wealth was in their herd animals, and the skills they needed to develop to protect this wealth against both animals and other groups of humans kept them continually prepared for combat. Their equestrian skills gave them the capacity to strike with lightning speed and terrifying effectiveness.

Virtually all adult males would serve as warriors. Thus they had two principal means of acquiring their needed resources: They could tend and breed their herds and they could attack agricultural settlements or other nomadic bands to steal all that was worth carrying off. Their economic well-being depended upon both. Not surprisingly, then, the skill and courage required for attack made war a noble activity within their cultures.

Yet their mobility posed serious limits to their economic and cultural development. Without giving up nomadism, they could accumulate only limited wealth. Because of their nomadism, they could not develop a high degree of division of labor or specialization. Consequently, they typically remained poor and illiterate.

Nevertheless, their aggressiveness had serious economic consequences. It was to severely retard economic development in many areas of the world, such as Eastern Europe, which suffered continual waves of nomadic attack from the East. Because of their mobility and military skills, they were all but impossible for more settled powers to constrain or control.

War and Peace and the Rise of the State

As agricultural settlements grew, defense became increasingly specialized. Social power came to be based increasingly on political relations as opposed to kinship relationships. Sociologist Max Weber saw this evolution of the state as a consequence of a group gaining a relative monopoly on violence. In a similar vein, economic historian Douglass North has developed a theory of the state according to which a group with a comparative advantage in violence specializes in offering defense in return for a portion of the output of all producers. This group becomes the state.

It should be noted that from the vantage point of economic science, the state can be viewed much like a monopoly business firm, albeit one with unique characteristics. An implicit contract exists between the state and its subjects: in exchange for protection from both external
and internal aggression, subjects provide the state with resources in the form of tribute or taxes. Its superior fighting power, and hence its high degree of monopoly on violence, gives the state the temptation and potential ability to extract a maximum of taxes from producers. However, the state’s ability to exploit the people within its domain is checked by the threat of revolt and the availability of substitutes. If the state’s tax burden is deemed excessive, subjects might be tempted to give their allegiance to a rival group offering to provide protection for less. They might even prefer the assumption of power by a foreign force.

Paradoxically, peace is necessary for economic progress, yet peace can make despotism more readily possible. If a state faces no serious internal or external competition for the allegiance of its subjects, then these subjects have no recourse to substitutes. If the state has no internal competitors, then it need not be so solicitous of its people. If no external competition is in evidence, then factions of subjects cannot flirt with foreign powers in a manner that places checks on the sovereign’s power. Thus, without internal or external substitutes, the state can more readily oppress its people. Its people have no other defense options.

A classic example is pharaonic Egypt. With a sea to the north, deserts to the south and east, and semi-arid lands to the west, Egypt was relatively well insulated from external aggression. Also, with periodic exceptions, there was little or no internal competition. Consequently, the power of the pharaohs was nearly absolute and their exploitation of their peoples supposedly quite extreme.

A second example is that of Rome. The Roman state developed military technology that was superior to that of other states and peoples. Yet more importantly, it developed the economic power and highly sophisticated social organization that gave it clear military superiority over contending political entities. The consequence was that competing political powers were typically defeated. The evolving Roman Empire had, then, two sources of income: It could tax its own citizens, and it could demand tribute from conquered peoples.

The Roman state developed a fairly high degree of monopoly power over violence for a theretofore-unparalleled geographic range. This high degree of monopoly resulted in the pax romana, a degree of peace in the Empire that enabled the growth of trade and economic development. This economic dynamism increased the tax base and hence the revenue accruing to the state.

Yet the far-flung nature of the Roman Empire meant that internal competition for power was ever-present. This placed a check on the ability of the state to exploit not only Roman citizens but also others within the Empire.

Eventually, however, Rome lost its comparative advantage in violence. The challenge was both internal and external. Internally, factional fighting weakened the state. Externally, political contenders, adopting similar technology and organization strategies, succeeded in opposing Roman forces on the frontiers of the Empire.

If the state is viewed as a unique type of economic agent, then like all other economic actors, the state will attempt to maximize its income. But its power to do so, as noted above, is constrained by the availability of substitutes. If an internal or external contender offers protection for less, then the ruled may switch allegiance. It is for this reason that rulers, like all economic firms, will constantly strive to eliminate all competition. The invasion of the Roman Empire by ‘barbarians’ offered peoples in the Empire substitutes. The invasions may have been successful in part because the invaders offered a better deal—better protection for less taxes or tribute.

Once a state is weakened by competition, it may find itself on an ever-accelerating decline. The dynamic works as follows: An attack means that more resources must be allocated to defense. At some point these increased costs will force the state to increase the amount of surplus it takes from its citizens. It must increase taxes, tribute, or confiscations. Such highly unpopular measures cause allegiance to waver.

In addition, if the state takes more, economic incentives may be impaired. Why work hard to create a large harvest or amass a large stock of animals if the state is likely to take them away? Instead of putting their wealth into productive assets, people have an incentive to convert it into nonproductive forms of property, such as precious metals, that can be hidden from a confiscating state. Obviously, such behavior reduces a society’s potential economic output, and thus is also likely to erode the state’s revenue base, handicapping its chances of amassing the resources necessary for fending off contenders for power.

Ideology can, of course, play a significant role. The state would wish that subjects express ‘product loyalty’. If possible, the state could be expected to appeal to higher motivations such as defending the ‘fatherland’ or ‘motherland’. It would wish to convince its subjects that its cause is the will of a god or gods, a just cause against the forces of evil. Typically a priestly class helped create and maintain such state-supportive ideology. Rulers might even portray themselves as gods, as was the case with Egypt’s pharaohs, or divinely chosen, as was the case in much of medieval Europe.

A state’s capacity for waging war is constrained by the amount of surplus output that can be produced. For instance, if people faced such material hardship that they would have to expend absolutely all of their energies producing for bare survival, then no one could be freed from production to engage in fighting. By contrast, if 90% of the population could produce enough subsistence for
the entire population, then conceivably 10% could engage in fighting. Of course, the amount of surplus created by those in production limits not only the capacity for waging war, but also the size and luxury of the governing or priestly classes.

The Rise of Capitalism

In premodern agricultural societies, war was frequently a more promising route to wealth than economic production. The spoils of war could potentially make the victors instantly wealthy. The two principal factors of production and hence the two principal forms of wealth were land and labor. Both could be obtained through military conquest. To be useful, conquered land had to be controlled and defended against competing forces. Captured peoples could be returned as slaves to work the land of the victors. Indeed, the taking of slaves was an especially good economic coup. Those taken would typically be old enough to work. The conquered peoples had paid the substantial expense of raising them to that age. Thus the capturing of adults to serve as slaves was a better deal than domestically breeding and raising slaves until old enough to work.

Hard work in production, saving, and investment, by contrast, could promise to improve one’s lot, were it not for the fact that brigands or the state stood too frequently ready to take it all away. Indeed, a principal reason why economic development has been so slow to evolve in human history is that property rights have been too fragile.

The superiority of war over economic production was expressed in the status relationships of premodern agricultural societies. The highest prestige was held by those in government or in military service. Frequently, the two were indistinguishable. In fact, the only acceptable careers for the nobility were in politics and the military. As the Marquis de Vauvenargues put it in the mid-eighteenth century, “a man of quality, by fighting, acquires wealth more honorably and quickly than a meaner man of work.”

Those in production, by contrast, typically commanded little if any esteem. Those in agriculture—the overwhelming majority of the people—were generally not free, being tied to the land as slaves, serfs, or in debt bondage. Those in crafts, although generally freer than cultivators, had relatively little prestige prior to the rise of capitalism. In most premodern societies, those in trade and finance were especially looked down upon. Indeed, their domains were viewed with such disdain and distrust that they were frequently not accepted as full members of society. Instead, trading and banking functions were often performed by metics or resident aliens. Incidentally, the state periodically found it ideologically useful to blame society’s ills on these metics, making it easier to confiscate their wealth.

The slow rise of capitalism in Western Europe became one of humanity’s great watersheds. It set in motion forces that would create not only unparalleled wealth, but also the eventual promise of an end to war.

As nation-states evolved in Europe, fueled by the new technology of gunpowder that could lay waste to feudal castles, and by the wealth of expanding trade and commerce, these states found themselves in the unique political situation of a general balance of power. After the fall of Rome, no single political power succeeded in conquering and sustainably controlling all of Europe, not that there were not notable attempts such as those of Charlemagne, Napoleon, and Hitler. This prolonged general balance of power was unique to Western Europe and helps explain its economic success.

The consequence of no one power being capable of establishing hegemony over Europe had three major related consequences. First, nations faced the constant insecurity of being attacked by other more or less equally insecure political entities. This nation-state competition created an arms race in which to fall too far behind meant possible conquest by a more advanced enemy. This competition also placed a premium on improving the economic foundations of military might.

Second, nation-states had a collective interest in no single power becoming overly strong. Alliances would thus form to preclude an already strong nation from becoming yet stronger by annexing a neighboring territory.

Third, nation-state competition made it more difficult for individual nation governments to suppress new ideas, practices, and technological progress. Repressed or fearful intellectuals could often flee to neighboring states to find sanctuary. Some of the best-known examples of this were René Descartes, John Locke, Voltaire, and Karl Marx. In addition, intellectuals, unable for political reasons to publish a work within their own nation, often successfully sought publishers abroad.

European nations that attempted to repress technological innovations frequently were forced to relent. A striking example was France’s attempt to outlaw the printing press in order to protect the livelihood of copyists. The consequence was that authors sent their manuscripts abroad for publication, thus not only outflanking the prohibition, but also depriving France of an important industry. Eventually, France was obliged to permit the evolution of printing within its own borders.

While capitalism made states stronger by strengthening their economies, it also tended to weaken states’ ability to act tyrannically. It did this by dividing authority or power into two spheres: the political and the economic. As capitalism evolved, the state was forced to withdraw progressively from intervention in the workings of the economy. Although this withdrawal has never been total and there have been reversals, it has generally meant that
the political sphere occupies itself with the functions of statecraft such as waging wars, making and maintaining alliances, maintaining order, and promulgating laws and regulations (setting the rules of the game).

The second sphere of power and authority is the economy. It concerns itself with production and distribution, both of which came increasingly to be ruled by market forces. States discovered, and are still discovering, that economic dynamism is frequently better promoted by leaving most economic matters to the workings of this market sphere. The market sphere grew to serve as a countervailing power to the political sphere.

The evolution of capitalism has slowly replaced the premodern logic of economic reward. The potential for attaining wealth through war has declined as the technology of destruction has become ever more sophisticated and widely dispersed. The increasing cost of this technology, along with the rising amount of destruction of wealth that it promised, reduced the probability that the spoils of war could make war economically worthwhile.

Further, under capitalism, growing productivity in agriculture meant that this sector would decline in relative importance. With the exception of a few natural resources such as oil and minerals that are highly unevenly dispersed geographically, capturing land promised too little in terms of wealth.

Two forces were also generated to serve against the capturing of labor in the form of slaves. First, the growing sophistication of production technology made the use of bonded/slave labor less productive. Second, markets work best if all are free to enter and exit them without coercion. The expansion of markets helped increase the value of freedom generally. Slavery came to be seen as morally wrong.

The logic of reward shifted from war and violence to peaceable production. And, although the potential risks and rewards of a military career would continue to confer social prestige upon its practitioners, leaders in production found their social standing continually improving as capitalism evolved.

The fuller manner in which the maturation of capitalism favored production over war can be seen by examining the changing relative importance of the factors of production. Economists have long identified the three major factors of production as land, labor, and capital. As agriculture declined in relative importance, so too did land. As manufacturing and services increased in relative importance, capital became increasingly important. The traditional aristocratic class held its wealth in and derived its power from land. As land’s relative importance declined, so too did the power, influence, and status of the aristocracy. The bourgeoisie class, by contrast, holds its wealth in and derives its power from the ownership and control of capital. The rising importance of capital resulted in the ascendancy of bourgeois power, influence, and values.

Unlike land, capital is fairly mobile. Machines can be moved. But even more mobile is the ownership claim on capital, financial capital, which provides the capitalist class with great power vis-a-vis the state. Because this wealth is highly mobile, it can more readily escape the control of any particular government. This was noted by Montesquieu in the early eighteenth century. He wrote of how, with the evolution of a form of financial capital, the bill of exchange, “the richest trader had only invisible wealth which could be sent everywhere without leaving a trace...a contrivance which somehow lifts commerce right out of [the ruler’s] grip.”

The market sphere came to serve as a countervailing power to the political sphere. If government threatened capitalists’ freedom or wealth, capitalists could threaten to flee with their wealth to friendlier locations abroad. Because military strength ultimately depends upon economic power, governments had to be careful not to frighten off capital. They had to provide capital with security. Social thinkers were beginning to recognize that this new economy promoted nondespotism. For instance, in the mid-1760s, political economist James Steuart observed that a “modern economy...is the most effectual bridle ever was invented against the folly of despotism.”

As governments became increasingly aware that military strength was dependent upon economic strength, property rights were established that provided producers with greater assurance that their property was secure. Property came to be better protected by more clearly defined and better enforced laws. Note, for instance, the concerted efforts to eliminate piracy on the high seas. The state also offered greater assurances that property could not readily be confiscated by the state itself. Note here, for instance, the protections against confiscation provided by the US Constitution. The consequence was, of course, the unleashing of private incentives, greater economic dynamism, as well as more enduring domestic peace.

Just as the rise of the nation-state centralized political power, the evolution of capitalism served to socially disperse power. The rising wealth of the bourgeoisie prompted this class to demand a share of political power. At times this demand expressed itself violently, as in the English Glorious Revolution and the French Revolution. But more frequently, political rights were acquired slowly, bit by bit.

With the rise of industrialization and extensive urbanization, the working class also began to demand not only better wages and living conditions, but also political rights and a share of power. Although their struggles were often violently crushed by states representing the interests of capital, for the most part workers gained rights slowly, progressively. Considerably later, women and minorities
would also petition for their share of political power. The upshot has been that over the history of capitalism, power has come to be evermore widely shared. As a result differences have come to be resolved more frequently within a peaceable political arena as opposed to through civil strife or civil war.

**Is War Natural?**

Is warlike behavior part of the very nature of human evolution? Evolutionary, anthropological, archeological, and historical evidence suggests that war and warlike behavior have been an ever-present part of the human experience. As social animals, it would appear that humans have always divided themselves into groups with radically different attitudes toward members versus nonmembers. Violence against members has been discouraged, often by violent punishment. Violence against nonmembers, by contrast, has often not only been tolerated, but encouraged and rewarded as well.

**War as Economic Behavior**

As we saw earlier, in a world of scarcity social groups struggle against each other, perhaps war with each other, for control or possession of limited resources such as, first, women and hunting and gathering territories, and later, cultivable land and slaves. War, then, can be a form of competition for command over scarce resources. Anthropological studies have found that in general, the scarcer resources are, the greater the likelihood of war.

But where resources have been abundant and widely distributed, competition has been rarer. Much has been made of a number of societies, such as the Bushmen of Africa’s Kalahari Desert, or the Eskimos, that have been relatively peaceable. Clearly resources were not abundant for such peoples. But what explains their peacefulness is that they were uniquely situated in territories where competition through war for scarce resources could not have paid off.

Because global human population has been rising ever more rapidly since the beginning of the adoption of agriculture, all societies would ultimately face others in competition for scarce resources. The central problem of the science of economics, the problem of scarcity, has meant that human groups were bound to war against each other whenever the payoff was adequately attractive.

**War as Evolutionary Strategy**

War would also seem natural from an evolutionary perspective. Groups that were most successful in increasing their command over scarce resources would have a survival advantage that would permit them to increase their populations, and thereby pass on their genes or culture to more progeny. Evolutionary biologist David Barash addresses the naturalness of war by noting the fitness argument: “The fitness of individuals within a group suffers most when that group is forced to share resources with individuals of another group. The personal fitness of these individuals could therefore actually be increased by warfare, provided that the cost of waging war is less than the benefits received.”

Thus from both economic and biological vantage points, it would appear that at least in the early history of humanity, war was not the consequence of some self-destructive passion run amok. Instead, it would appear to have been critical to the very process of human social and cultural evolution. Indeed, Darwin and others since have suggested that the evolution of human intelligence is linked to the pervasiveness of warfare in the human experience. Barash suggests that “Our most dangerous predator may well have been ourselves, and selection would have favored those individuals whose brains were large enough to permit them to enter into workable alliances and to coordinate defense – and aggression – against other groups.”

**What Economists Have Had to Say about War and Peace**

Although war made sense from an economic perspective until fairly modern times, economists have had relatively little to say about it. Indeed, until fairly recently, most economists who expressed an interest in the economic aspects of war and peace were outside the mainstream of the profession. War and peace have simply not been given enough attention within the profession for a general consensus to evolve as to their causes. In this section, the major contributions will be briefly surveyed.

**Heterodox Economic Thinking on the Causes of War and Peace**

Early modern economic thinkers, Adam Smith and the classical school, generally believed that commerce, and this evolving system that was to be called capitalism, would engender greater peace among nations. They did not greatly expound on the topic. Karl Marx and Friedrich Engels, however, were of a different mind. They saw war as part of the process of what they called primitive accumulation in the early evolution of capitalism, whereby violence was used by the capitalist-controlled state to expand profitable opportunities. At the turn of the nineteenth century, theoreticians of imperialism – some Marxist, others not, believed that imperialism in search of resources and markets was
necessary to avoid economic stagnation. State capitalist rivalry for imperial domains would likely lead to war.

Two non-Marxist heterodox economists who discussed war were Thorstein Veblen and Joseph Schumpeter. Both essentially viewed participation in war by capitalist societies as irrational: Veblen saw such participation in war as a cultural perversion, stemming from an earlier predatory stage from which humanity might never escape. Much of his biting pessimism was grounded in the proclivity of humans to "sink their force in the broad sands of Patriotism." Schumpeter also saw war as atavistic behavior, and optimistically as something that capitalistic rationality – which he saw much in the manner of Max Weber's spirit of capitalism – would move us beyond.

More recently, a group of neo-Marxists, often referred to as the monopoly capital school, adopted a Keynesian inadequate-aggregate-demand framework. Keynes had argued that government spending is necessary to maintain adequate aggregate demand to prevent an economy from falling into recession or depression. The monopoly capital school argued that the capitalist-controlled state could only spend on those activities that might enhance capitalist profits, and the spending which was most easily justifiable to the greater public was on war. Consequently, they argued that capitalist states were destined to maintain warlike postures towards other states in order to maintain profits and avoid economic crises.

Since the early 1960s, attention has also been focused on what outgoing President Eisenhower termed the "military–industrial complex." The general idea has been that the military and industries that benefit from military spending work together to generate public anxiety concerning external threats to the nation and its interests. This view often shared much with monopoly capital theory, as well as the long-standing charge that, because war frequently is good for the armaments industry, and profits generally, capitalism as a system is prone to war or warlike behavior. Most economic research in this area has been descriptive and not highly theoretical. It has also been performed by mainstream as well as heterodox economists.

Mainstream Economic Theories of War and Peace

When mainstream economists have taken up the topic of war, it has usually been in terms of viewing state actors in the same manner that individual behavior is viewed. That is, they have extended the neoclassical economic model to an analysis of the behavior of rivals in war. Central to this model is the assumption that actors are rational, self-interested maximizers, and that decisions are made at the margin.

War and warlike behavior are depicted as rational for one or more parties. By rational it is meant that war follows some sort of at least rough and ready calculation of the estimated costs and benefits of varying degrees of warlike behavior.

These calculations include assessing the rationality of bluffing, or mere warlike behavior that can not only be rational, but even superior to actually going to war. For instance, a weaker power, knowing it would lose a war, might nonetheless pretend that it would fight if provoked. Only by threatening the stronger power with losses might the weaker discourage the stronger from actually attacking.

Mainstream economists have also taken note of the parallels between the strategies employed by a small number of firms within an industry (e.g., duopolies and oligopolies) and the behavior of states in potential military competition (incidentally, the famous early nineteenth-century German military theoretician, Carl von Clausewitz, had also compared war to business competition). The models of game theory especially have been used in trying to better grasp the options available to military rivals.

Within such models, war is viewed as a negative-sum game. That is, whereas war might be rational for one or more parties, it is irrational for all participants taken together. It might be tempting to think of it as a zero-sum game, whereby whatever one participant wins, the other loses. But war is in fact a negative-sum game because the gains of the winners will be less than the losses of the loser. War costs resources, and thus if war could be avoided, these resources could in principle be allocated to meet other needs.

The particular strength of this sort of modeling is that it makes clear how we would expect rival parties to behave in their strategies toward one another on the field or at the bargaining table. In fact, this basic framework of analysis has been widely used by noneconomist students of international relations and politics such as Robert Gilpin and Bruce Bueno de Mesquita.

Although this model possesses considerable explanatory power, its limitation is that it focuses on individual decision makers as rational, self-interested maximizers. It ignores and thus sheds no light on how individuals are socialized, on how their preference functions are formed. It does not tell us how or what individuals come to understand as their self-interest.

Moreover, although the model of rational maximizing behavior may characterize the strategies rivals adopt toward one another, it appears limited in two interrelated senses. First, it presumes that the self-interest of political leaders and their constituents are essentially the same. Second, when it comes to actual conflict, the model of rational maximizing behavior does not seem to fit the
varied accounts we have of how individual participants behave in battle.

More to the point, it would appear that when members of one side behave as purely self-interested actors, they decrease their side’s chances of success. The reason, of course, is what economists call the free-rider problem. If individuals self-interestedly shirk their fair share of the battle effort, a breakdown in cohesion threatens. Success in battle, and especially extraordinary upsets where a physically weaker side trounces a stronger opponent, typically is found to involve a certain esprit de corps – an especially strong commitment on the part of individuals to the group – precisely what the mainstream model has difficulty explaining.

This suggests, then, that whereas war may be rational for a group, it requires nonrational motivation on the part of individual actors, especially those who do the fighting. But if this is the case, how might it have come about in terms of human evolution?

**The Socioeconomic Dynamics of Peoples at War and Peace**

As noted above, war and warlike behavior are understandable from both evolutionary and economic perspectives. Through evolution, war and warlike behavior appear to have been selected. Some evolutionary biologists and ethnologists argue that this selection was genetic. Others, perhaps wishing to hold out for greater optimism, suggest that it was not genetic, but instead that such behavior has been culturally selected. But the dominant view among evolutionary biologists and ethnologists today is what they term ‘gene-culture co-evolution’, by which they mean that there are, as Charles Lumsden and Edward Wilson have put it, “reciprocal effects of genetic and cultural change within the human species.” Cultural change prompts genetic change and vice versa.

**Group Commitment**

Just as warlike behavior appears to have been selected, so, too, it would appear, have two correlative social tendencies: The first is the extraordinary commitment of members to the group during war or its threat. This is hardly surprising, since a group for which such commitment was weak would be at a severe disadvantage in a struggle for resources, and therefore would be at a disadvantage in terms of survival, in terms of passing its members’ genes or culture on to progeny. It is even plausible that our very sociability, at least to some extent, was selected for as a result of the benefits of social cohesion during threats from external aggressors.

Evidence of this group commitment under threat is everywhere in our cultural history: War occasions the most splendid acts of heroism. It is during war that individuals most readily sacrifice their lives for others. Nietzsche and many others since have noted that men are more tightly bonded together in combat than at any other time. This bonding appears to be pleasurable. Indeed, there appears to be an exhilaration in identifying with a group in conflict with others. We also see this proclivity for group commitment in sports. For instance, rarely is anything really to be gained by spectators if their team wins, yet at times there is actual carnage among spectators not content with the outcome of the game. Clearly something other than rational self-interest is at play here.

Indeed, evolution may have selected a tendency always to locate an external foe. Societies rarely seem to be without one. Thus, for instance, is it more than mere coincidence that in the US the two great political purges of the twentieth century came in the wake of each of the two World Wars, when new serious external threats had yet to be clearly identified? If such a tendency always to locate an external foe had been selected in evolution, the payoff would be the social cohesion that would better enable society to minimize the free-rider problem.

**Loyalty to Leaders**

The second corollary of warlike behavior that appears to have been selected has to do with the degree of loyalty given to leaders when the group is threatened. Such loyalty would enable a more coordinated, quicker response to an enemy attack or change in strategy. In fact, it seems that leaders rarely achieve as high a degree of loyalty from their followers during peace as during war. As biologist John Alcock has put it, "paradoxically, war depends on the cooperative, group-bonding, authority-accepting aspect of human behavior."

Because leaders more readily receive stronger loyalty and respect from followers when external aggression threatens, they face an all-but-irresistible temptation: They can benefit if they can convincingly keep alive a perception of an external threat. They might even be expected to craft measures against other powers that will provoke a limited amount of real threat. Hegel made note of this phenomenon when he wrote that "peoples involved in civil strife...acquire peace at home through making war abroad."

**Loyalty to Leaders in Modern Times**

As to the social functioning of loyalty to leaders, an important difference exists between early human society and quite recent history. Most of our human past occurred prior to the adoption of agriculture. Presumably, during this long period of human evolution, a tendency for group commitment and loyalty to leaders in times of danger was
being selected for. Note that during war leaders were the most vulnerable to injury or death. They were literally leading the band into battle. Hence, any temptation to reap loyalty and respect by showing courage before the enemy had to be tempered by the risk of serious injury or death.

Since the adoption of agriculture, however, human society has become progressively more complex: differentiated in terms of economic function through the division of labor; and stratified with respect to wealth, status, and power. There are two consequences of this that are of interest for grasping the nature of modern war. First, what is rational for certain segments of society is no longer necessarily rational for all. Some may disproportionately reap whatever benefits there might be from war, whereas others, especially those who go to the front lines, may disproportionately bear the costs.

The second consequence of this explosion in social complexity is that there has been a decreasing cost to leaders of yielding to the temptation to seek the loyalty and respect of followers by keeping alive the perception of a threat of external aggression. As societies have become increasingly complex, their leaders have progressively retreated from the front, such that failure in war has generally become personally less costly to them.

This does not, of course, imply that leaders could with impunity maintain loyalty by generating external hostilities. If they pushed too hard, a catastrophic war might result, robbing them of power and even life. On the other hand, if members of the group view the alleged threat as either not real, or as not sufficient to merit the cost, then the leader loses credibility and possibly also power. In the US during the Vietnam War of the late 1960s, this appeared to have been the fate of President Lyndon Johnson, and the Iraq war appears currently to pose the same threat to President George W. Bush.

It may be the case that leaders do not always consciously and in a calculatingly rational manner weigh the political benefits against the costs of warlike behavior. Such behavior might come forth spontaneously, in a manner akin to group commitment or the followers’ allegiance to the leader.

Ideology also comes into play. Since the evolution of complex language, ideology is likely to have been important in maintaining group cohesion and effectiveness in warlike behavior. But in the earliest eras of human history, a threat was generally visible for all to see. In more modern times, by contrast, a threat may be protracted or not always clearly in evidence. Here ideology becomes more critical for maintaining loyalty both to the group and to the leader. Indeed, ideology production becomes an industry, keeping alive depictions of enemies as not actually or fully human; or as godless; or as advocates of barbarian social institutions; or as people of an Evil Empire or members of an Axis of Evil or as terrorists. Alternatively, a society’s ideology may vest its distant leader with supranatural powers such as quasi-godhood, divine status, or divine rights.

In modern times there is reason to believe that it has been during periods of economic instability that leaders have been most tempted to use the external threat strategy to achieve support. During economic crises, leaders would be most tempted to craft limited measures against another power in order to provoke a manageable amount of real threat. The reason is that beyond providing for defense and domestic law and order, the most important criterion for judging leadership today is its ability to maintain material or economic prosperity.

A number of events in recent times lend support to this hypothesis. World War II grew out of the worst economic depression in the history of capitalism. By contrast, a widespread peace movement and détente came forth during the extraordinary worldwide economic progress of the 1960s. When economic dynamism began to falter in the 1970s, détente began to be drowned out by rattling sabers. Note also that during the 1960s there was widespread confidence in governments’ ability to use Keynesian tools to insure macroeconomic stability, whereas during the late 1970s and early 1980s laissez-faire doctrine resurfaced, arguing that governments are essentially powerless to stabilize economies.

There are many examples of how the threat of foreign aggression has served to legitimate political power. For instance, the rise of the first socialist country following the Bolshevik Revolution provided the capitalist power elites in Western countries with a powerful ideological tool for delegitimizing the progressive aspirations of the working class. The foreign threat was far more than just an enemy country, it was an insidious ideology – communism. Communism was likened to a metastasizing foreign cancer that was ever-threatening to enter all parts of the social body with disastrous consequences. It was godless, soulless, and if not successfully fought, it would make slaves of everyone. Progressive ideas were readily depicted as communist-inspired and those who advocated them as secretly working for the worldwide communist conspiracy. The Bolshevik Revolution granted capitalist interests an ideal foreign enemy.

This foreign threat was continually used to legitimate intervention in the internal affairs of Third World countries. Communism had to be stopped from expanding into other parts of the world, even if it meant overthrowing democratically elected governments, propping up dictators, or backing death squads.

A second successful, long-lasting modern example of how the threat of foreign aggression served to legitimate political power was the Soviet Union. From 1917 until its fall, it was relatively easy for the Soviet power elite to maintain the credibility of a constant external threat. No sooner had the Bolsheviks taken power than England,
France, and the US set out to undermine the socialist experiment, especially by arming and financing the White Russians. Throughout the 1920s there was a perceived threat that the socialist experiment would be undone by hostile capitalist countries. So strongly did Stalin feel this that in 1931 he announced: “We must make good this distance (to become a first-rate economic and political power) in ten years. Either we do so, or we shall go under.” His words were to be prophetic – the Germans crossed Soviet borders 10 years later. And then, at the end of World War II, the US dropped atomic bombs on civilian populations in Japan, suggesting to the Soviet peoples how ruthlessly inhumane the capitalist US might be in the pursuit of its interests.

In good part due to geography, few peoples have suffered the ravages of war as much as the Soviets – 20–30 million perished during World War II. Consequently, in a sense, the Soviet political elites had it made. They could justify the lack of democracy or civil rights, and the sorry state of their economy, as necessary for defense in an aggressively hostile capitalist world bent on their destruction.

The same dynamic may well explain Fidel Castro’s prolonged dictatorial control of Cuba. Since his revolutionary assumption of power, the US has maintained a highly visible hostile stance towards his rule, supporting an invasion by counterrevolutionaries, maintaining economic sanctions, and, it has been rumored, planned or supported assassination attempts.

A more contemporary example is what occurred in the wake of 9/11. George W. Bush assumed the US presidency in early 2001 with what many judged as inadequate electoral legitimacy. And the economic conditions during his first years in office were disappointing. Most visible was the sharp collapse of stock market prices: During Bush’s first 2 years in office, the S&P 500 declined by 33%; $4.9 trillion in equity assets evaporated. Unemployment during this period increased by 40%, from 4.2% to 6%. Between January 2002 and January 2003, the dollar declined by 20% against the Euro. Such conditions would usually result in low popularity ratings. And President Bush’s ratings were quite low until the terrorist attack on the Twin Towers in New York and the Pentagon in Washington, DC. In the ensuing 2 weeks, as Americans joined in solidarity, his popularity rating soared. Within the US he came to be widely seen as a great leader. And thereafter, the threat of terrorism was used to legitimate considerable restrictions on civil liberties.

The Socioeconomic Dynamics of Peace Creation

As noted earlier, the evolution of capitalism made economic production more profitable than war. Indeed, as it made war ever more destructive, it eventually made it economically unprofitable even for the winner. Capitalism generated and fed upon evermore sophisticated technology and evermore sophisticated social coordination. The two world wars of the last century – separated by a mere quarter century – made strikingly clear capitalism’s destructive potential. Approximately 8 million died in World War I, approximately 50 million in World War II.

And then the cost of a major war between the US and the USSR became potentially infinite. The threat of species extinction as a consequence of a US–Soviet war meant that leaders were once again on the front lines. They would also perish in a full war. Their ability to play the external threat card to rally support was constrained. And in spite of slogans such as ‘better dead than red’, popular support for a major war was unlikely to materialize. Quite convincingly, sophisticated atomic weapons and the means of delivering them over great distances are widely credited with effectively ending major wars.

When viewed in the full sweep of human existence, there is an interesting sense in which humanity has come full circle. In its earliest history as hunters and gatherers, war did not have a very high economic payoff. There were simply too few material benefits to win from military victory. Warlike behavior in the form of bluff might pay off, but actual combat with the threat of serious injury or death was not generally a good risk from an economic point of view, although as noted earlier, there may have been attractive sexual payoffs for warring individuals that augmented their potential for passing their genes into future generations. Today major war has again become a poor economic risk. Destruction might be total. But even if more limited, it is likely that no power would win economically. It would appear that there is no remaining economic rationale for war.

However, it is not just the threat of species suicide or the lack of an economic payoff that is turning peoples in the advanced wealthy nations against war. Capitalism has set in motion a number of dynamics that serve to increase the probability of peace.

Capitalism took war to its necessary conclusion. It produced the wherewithal that enabled total war and ultimately total destruction. But capitalism has done more than this to give peace a chance. It has changed how people think about the world and themselves. It has made them evermore critically minded.

The most frequently noted consequence of capitalism is that it has brought forth a level of affluence that even the most starry-eyed of past visionaries could hardly imagine. Less noted is that as people become materially wealthier, they come to value their lives more. Note for instance that with ever-greater wealth, people generally become more cautious. They eat more healthily, they smoke less, drink less, wear seat belts, and in general
place a higher value on personal safety. This latter point is strikingly obvious to anyone from a rich nation who has the opportunity to drive on the roads of a relatively poor country. With so much more to lose, increasingly wealthy populations might be expected to show less willingness to engage in war.

Karl Marx and Friedrich Engels argued that under the regime of capitalism, “all that’s solid melts into air.” Economist Joseph Schumpeter referred to this dynamic character of capitalism as “creative destruction.” What these social thinkers were alluding to is the tendency of capitalism to destroy all traditional social institutions, beliefs, and attitudes. Believing that the ‘dead weight of the past’ fettered human progress, they by and large thought this was a good thing. However, not all social thinkers have been so sanguine.

Capitalism has acted as a ‘corrosive acid’ upon the extended family, traditional communities, rigid class distinctions, and the authority of traditional religions. In doing so, it has thrust humans into social worlds where they sense themselves as increasingly alone. Capitalism means that individuals relate to each other not as traditional norms dictate, but as markets dictate. And in markets, individuals are encouraged to be rational and calculatingly self-interested. The increasing intensity of competition has meant that those who are most successful in pursuing their own self-interest become wealthy, the least successful, poor.

Traditional values such as honor, glory, courage, patriotism, and sacrifice for the greater good of the whole have suffered as people become evermore calculating of their own narrow self-interest. The downside of all this is all too obvious and is widely lamented. A clear upside, however, is that individuals are less willing to sacrifice themselves or their economic well-being in war.

In pre-capitalist societies, a religious framework served as the central referent of all behavior and understanding. The evolution of capitalism slowly eroded religion’s dominance, and with it the promise of an afterlife. This loss in belief in an afterlife increases the value of this worldly life. Loss of one’s life in war means loss of one’s total personal existence.

Finally, for reasons discussed earlier, capitalism has tended to decentralize political power. It has, especially in its advanced form, provided a fertile ground for democracy. Yet ironically, democracy increases the ease with which a leader might lose power, and thus might enhance the temptation to rattle sabers. The 2003 US invasion of Iraq in the wake of a political leader might lose power, and thus might enhance the temptation to rattle sabers. The 2003 US invasion of Iraq in the wake of a political leader might lose power, and thus might enhance the temptation to rattle sabers. The 2003 US invasion of Iraq in the wake of a political leader might lose power, and thus might enhance the temptation to rattle sabers. The 2003 US invasion of Iraq in the wake of a political leader might lose power, and thus might enhance the temptation to rattle sabers. The 2003 US invasion of Iraq in the wake of a political leader might lose power, and thus might enhance the temptation to rattle sabers. The 2003 US invasion of Iraq in the wake of a political leader might lose power, and thus might enhance the temptation to rattle sabers.

The lesson appears to be that democracy is far more complex than political freedom and the vote, and that consequently its peace-bearing benefits flow more readily from a slow relaxation of authoritarianism that provides adequate time for complex democratic institutions to evolve.

However, although it may be the case that in the long-run capitalism and democracy evolve together within a nation, it is not so clear that they do so in the international sphere. Globalization has increased the gap between the rich and poor nations, leaving the latter, some contend, in yet more hopeless straits. To many, the failure of the Doha trade talks reveals advocacy for freer trade to be little more than a ruse of the wealthy nations for capturing yet greater shares of the world’s wealth and income for themselves. The go-it-alone political and military actions of the only remaining superpower have left serious doubts as to whether the world can generate sufficiently sophisticated international cooperation to effectively address severe environmental threats or the spread of nuclear weapons and other weapons of mass destruction. Ideologically, capitalism appears to be the only remaining viable economic system. However, at present, it does not appear to promise the democracy of nations that the promise of world peace requires.

See also: Colonialism and Imperialism; Economic Conversion; Economic Costs and Consequences of War; Economics of War and Peace; Overview; Military-Industrial Complex, Contemporary Significance; Military-Industrial Complex, Organization and History; Trade Wars (Disputes)

Further Reading


Economic Conversion

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Introduction: What is Conversion?
Magnitude of the Problem Today
The Economics of Conversion
The Role of Government
Conclusions
Further Reading

Glossary

Corporate Culture A general term for the elements of decision making, perspective, judgment, and procedure within a company, usually historically established, that characterize the particular company and distinguish it from others.

Demilitarization The fact or process of converting a nation’s economy, or the production of a particular company, from an emphasis on military weaponry to civilian or consumer goods.

Diversification In this context, the process in which a company oriented toward military production enters a new civilian market without necessarily leaving the existing military market; contrasted with ‘conversion’ in which the company replaces a military market with a civilian one.

Economies of Scale In strict usage, a term which refers to a physical relationship in which increases in physical inputs lead to more than proportional increases in output. However, increased output may lead to reduced costs for a variety of other reasons. Thus, volume economies often result where increased cumulative output leads to learning economies on the part of labor resulting from increased experience. Larger outputs also permit the spreading of fixed costs leading to lower fixed costs per unit of output. Technically, it is incorrect to lump these phenomena together and label the package as economies of scale since this ignores the distinction between short- and long-run periods.

Economies of Scope A term which describes a situation where savings derive from a firm’s producing a variety of different products rather than their separate production by different firms. This often permits a fuller utilization of productive factors. Multiproduct firms often reflect the presence of economies of scope.

Oligopoly An economic condition or entity in which a few companies dominate a large market; that is, trade is less concentrated than in a monopoly but there is a lack of general competition. The production of US military aircraft can be regarded as an oligopoly.

Transaction Costs Likened to friction in mechanical systems, they emerge from ‘planning, adapting, and monitoring task completion’ (Williamson, 1979). They may have a significant impact on decisions within a firm about what should be produced ‘within’ the firm and what should be purchased from outside vendors.

*The views expressed in this article are those of the author, and do not necessarily reflect those of the U.S. Department of State or the U.S. Government.