CHAPTER 1

THE MEANINGS OF PEACE

A man releasing a dove, which is widely considered a symbol of world peace.

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> *We need an essentially new way of thinking if mankind is to survive. Men must radically change their attitudes toward each other and their views of the future. Force must no longer be an instrument of politics. . . . Today, we do not have much time left; it is up to our generation to succeed in thinking differently. If we fail, the days of civilized humanity are numbered.*
>
> —Albert Einstein

This text is based on a number of assumptions. War is one of humanity's most pressing problems; peace is almost always preferable to war and, moreover, can and must include not only the absence of war but also the establishment of positive, life-enhancing values

and social structures. We also assume, with regret, that there are no simple solutions to the problems of war. Most aspects of the war-peace dilemma are complex, interconnected, and, even when well understood, difficult to move from theory to practice. On the other hand, much can be gained by exploring the various dimensions of war and peace, including the possibility of achieving a more just and sustainable world—a way of living that can nurture life itself and of which all people can be proud.

Throughout this book, we maintain that there is good reason for such hope, not simply as an article of faith but based on the realistic premise that human beings are capable of understanding the global situation and of recognizing their own species-wide best interests. Humans can behave rationally, creatively, and with compassion. Positive steps can be taken that will diminish our species' reliance on violence in attempting to settle disputes and that will facilitate the development of a more just, sustainable, and truly peaceful world.

Most people think they know what *peace* means, but in fact different people often have very different understandings of this seemingly simple word. And although most would agree that some form of peace—whatever it means—is desirable, there are often vigorous, even violent, disagreements over how to obtain it.

The Meanings of Peace

Peace, like many theoretical terms, is difficult to define. Like happiness, harmony, justice, and freedom, peace is something we often recognize by its absence. Consequently, Johan Galtung, a founder of peace studies and peace research, has proposed the important distinction between "positive" and "negative" peace. "Positive" peace denotes the simultaneous presence of many desirable states of mind and society, such as harmony, justice, equity, and so on. "Negative" peace has historically denoted the "absence of war" and other forms of large-scale violent human conflict.

Many philosophical, religious, and cultural traditions have referred to peace in its positive sense. In Chinese, for example, the word *heping* denotes world peace, or peace among nations, while the words *an* and *mingsi* denote an "inner peace," a tranquil and harmonious state of mind and being, akin to a meditative mental state. Other languages also frame peace in its "inner" and "outer" dimensions.

The English lexicon is quite rich in its supply of terms that refer to peace. In *Webster's Third New International Dictionary,* for example, peace is initially defined as "freedom from civil clamor and confusion" and positively as "a state of public quiet."[1] This denotes negative and positive peace in their political or "outer" sense. *Webster's* proceeds further to define (political or outer) peace positively as "a state of security or order within a community provided for by law, custom, or public opinion."

The second definition of peace, according to *Webster's*, is a "mental or spiritual condition marked by freedom from disquieting or oppressive thoughts or emotions." This is peace in its personal or "inner" sense, "peace of mind," as well as "calmness of mind and heart: serenity of spirit" *(inner peace)*. Third, peace is defined as "a tranquil state of freedom from outside disturbances and harassment." Peace also implies "harmony in human or personal relations: mutual concord and esteem." This is what we might call *interpersonal* or *intersubjective peace.*

Peace is then defined by *Webster's* as "a state of mutual concord between governments: absence of hostilities or war." This is the conventional meaning of peace, as "negative" peace, caused by "the period of such freedom from war." The sixth definition of peace is the "absence of activity

and noise: deep stillness: quietness," or what may be called *positive inner peace.* And in its seventh and final lexicographical meaning, peace is personified as "one that makes, gives, or maintains tranquility." This is what might be called *divine or perpetual peace,* with God as the ultimate cause of peace on Earth.

In some cases, the word *peace* even has an undesirable connotation. The Roman poet Tacitus spoke of making a desert and calling it "peace," an unwanted place of sterility and emptiness. Similarly, although nearly everyone seeks "peace of mind" or "inner peace," the undesired "peace" of a coma or even of death may not seem so desirable. To be *pacified* (derived from the Latin word for peace, *pax*) often means to be lulled into a false and misleading quietude. Indeed, *appeasement*—buying off a would-be aggressor—has a very bad name indeed. In the most notorious example, British prime minister Neville Chamberlain appeased Hitler in September 1938, famously declaring as he signed the Munich Agreement, which essentially gave in to all of Hitler's demands: "I believe it is peace for our time." (Less than a year later, Hitler invaded Poland, effectively starting World War II on the European continent.) By contrast, even the most peace-loving among us recognize the merits of certain martial and aggressive attitudes, acts, and metaphors, especially when they refer to something other than direct military engagements: President Lyndon Johnson's "war on poverty," for example, or the medical "war on cancer" and "battle against AIDS."

Some Eastern Concepts of Peace

The foregoing is not simply a matter of playing with words. Fighting, striving, and engaging in various forms of conflict and combat (especially when they are successful) are widely associated with vigor, energy, courage, and other positive virtues. Nonetheless, it is no exaggeration to claim that peace may be (with happiness) the most longed-for human condition.

Chinese philosopher Lao Tzu (6th century BCE), founder of Taoism and author of the *Tao Te Ching,* emphasized that military force is not the *Tao,* or "Way," for human beings to follow. He frequently referred to peaceful images of water or wind—both of them soft and yielding yet ultimately triumphant over such hard substances as rock or iron. The teachings of K'ung fu-tzu (or Confucius, approximately 551–479 BCE) are often thought by most Westerners to revolve exclusively around respect for tradition, including elders and ancestors. But Confucius did not hold to these ideas because he valued obedience and order as virtues in themselves; rather, he maintained that the attainment of peace was the ultimate human goal and that peace came from social harmony and equilibrium. His best-known collection of writings, the *Analects,* also emphasizes the doctrine of *jen* (empathy), founded on a kind of hierarchical Golden Rule: Treat your subordinates as you would like to be treated by your superiors.

The writings of another renowned ancient Chinese philosopher and religious leader, Mo Tzu (468–391 BCE), took a more radical perspective. He argued against war and in favor of all-embracing love as a universal human virtue and the highest earthly goal, yet one that is within the grasp of each of us. Mo Tzu said, "Those who love others will also be loved in return. Do good to others and others will do good to you. Hate people and be hated by them. Hurt them and they will hurt you. What is hard about that?"[2] In what is now India, Buddhist monarch Ashoka (3rd century BCE) was renowned for abandoning his successful military campaigns in the middle of his career and devoting himself to the religious conversion of his adversaries by nonviolent means.

The great Indian text, the Hindu epic *Maha-bha-rata* (written about 200 BCE), contains as perhaps its most important segment the *Bhagavad Gita.* This is a mythic account of a vicious civil

war in ancient India, in which one of the principal warriors, Arjuna, is reluctant to fight because many of his friends and relatives are on the opposing side. Arjuna is ultimately persuaded to engage in combat by the god Krishna, who convinces Arjuna that he must fight, not out of hatred or hope for personal gain but out of selfless duty. Although the *Gita* can be and has been interpreted as supporting caste loyalty and the obligation to kill when bidden by a superior party to do so, it also inspired the great 20th-century Indian leader Mohandas Gandhi as an allegory for the de-emphasis of individual self in the pursuit of higher goals. The *Gita* was also cited by the "father of the atomic bomb," J. Robert Oppenheimer, when he described the first atomic explosion as a contemporary incarnation of Krishna: "I am become Death, the Destroyer of Worlds."

Some Judeo-Christian Concepts of Peace

Peace per se is not prominent in the Old Testament. The God (Yahweh) of Abraham, Moses, and David is frequently portrayed as rather bellicose, even bloodthirsty, and the ancient Israelites were often merciless warriors. Exceptions to this norm exist, however, such as the prophet Isaiah, who praised the reign of peace and described war not as a reward or a route to success but rather as a punishment to be inflicted on those who have failed God.

Under the influence of Isaiah and later Hebrew prophets—and despite the ostensibly defensive violence of the Maccabees and Zealots (who opposed Roman rule in Palestine and have sometimes been called history's first recorded terrorists)—Jewish tradition has tended to strongly endorse peacefulness. On the other hand, it can also be argued that with the emergence of Israel as a militarily threatened—and threatening—state, this tradition has been substantially changed. In fact, Jewish, Christian, and Islamic traditions all have bellicose components and elements in their history. A key question is whether these militaristic activities—often quite persistent and widespread—are part of a pattern of faithfulness to, or a deviation from, their underlying religious worldview.

A deep irony underlies the concept of peace in these three great Western religious systems. Christianity, for example, gave rise to one of the great warrior traditions in the world, yet it is unique among Western religions in the degree to which it was founded upon a message of peace, love, and nonviolence. "My peace I give unto you," declares Jesus, according to the New Testament, along with "the peace of God, which passeth all understanding." Although definitions of peace often vary and hypocrisy is not infrequent, most human beings share a positive presumption in favor of peace, in accord with the stated aspirations of these great religions.

Positive and Negative Peace

Let us recall the important distinction between positive and negative peace. Negative peace usually denotes the absence of war. It is a condition in which no active, organized military violence is taking place. When the noted 20th-century French intellectual Raymond Aron defined peace as a condition of "more or less lasting suspension of rivalry between political units," he was thinking of negative peace.[3] Aron's is the most common understanding of peace in the context of conventional political science and international relations, and it epitomizes the so-called *realist* view that peace is found whenever war or other direct forms of organized state violence are absent. From this perspective, the peace proclamations of Pharaonic Egypt, the *Philanthropa*, were actually statements of negative peace, expressions of benevolence from a

stronger party toward those who were weaker. Similarly, the well-known *pax* of Roman times really indicated little more than the absence of overt organized violence, typically a condition of nonresistance or even acquiescence enforced by local arrangements and the military might of the Roman legions. The negative peace of the *Pax Romana* was created and maintained through social and political repression of those who lived under Roman law.

An alternative view to this realist (or *Realpolitik*) perspective is one that emphasizes the importance of positive peace and that has been particularly advanced by Norwegian peace researcher Galtung and others. Positive peace refers to a social condition in which exploitation is minimized or eliminated and in which there is neither overt violence nor the more subtle phenomenon of underlying *structural violence.* It denotes the continuing presence of an equitable and just social order as well as ecological harmony.

Structural and Cultural Violence

One commonly understood meaning of violence is that it is physical and readily apparent through observable bodily injury and/or the infliction of pain. But it is important to recognize the existence of other forms of violence, ones that are more indirect and insidious. This structural and cultural violence is typically built into the very nature of social, cultural, and economic institutions. (For example, both ancient Egypt and imperial Rome practiced slavery and were highly despotic, although they were technically in states of negative peace for long periods of time.)

Structural violence usually has the effect of denying people important rights, such as economic well-being; social, political, and sexual equality; a sense of personal fulfillment and self-worth; and so on. When people starve to death or even go hungry, a kind of violence is taking place. Similarly, when people suffer from preventable diseases or when they are denied a decent education, affordable housing, freedom of expression and peaceful assembly, or opportunities to work, play, or raise a family, a kind of violence is occurring, even if no bullets are shot or no clubs are wielded. A society commits violence against its members when it forcibly stunts their development and undermines their well-being, whether because of religion, ethnicity, gender, age, sexual preference, or some other social reason. Structural violence is a serious form of social oppression, which can also be identified with respect to treatment of the natural environment. However defined, structural violence is widespread yet often unacknowledged.

Under conditions of structural violence, many people who behave as good citizens and who think of themselves as peace-loving people may, according to Galtung, participate in "settings within which individuals may do enormous amounts of harm to other human beings without ever intending to do so, just performing their regular duties as a job defined in the structure."[4] Reviewing the role of "normal" people, such as Adolf Eichmann, who helped organize the Holocaust during World War II, noted philosopher Hannah Arendt referred to the "banality of evil," emphasizing that routine, workaday behavior by otherwise normal and decent people can contribute to mass murder, social oppression, and structural violence.

Structural violence, including hunger, political repression, and psychological alienation, often is unnoticed and works slowly to erode humanistic values and impoverish human lives. By contrast, direct violence generally works much faster and is more visible and dramatic. In cases of overt violence, even those people not specifically involved in the conflict may be inclined to take sides. News coverage of these events is often intense (as in the O. J. Simpson and Rodney King episodes, not to mention the Persian Gulf War, the war in Kosovo, and the wars in Afghanistan and Iraq). And because the outcome is often quite visible and undeniable (e.g., the forcible extraction of Iraq's

forces from Kuwait and of Serbia's troops from Kosovo or the violent removal of Chinese citizens from Tiananmen Square by Chinese Army troops), the viewer is more likely to pay attention to this tangible violence than to the underlying structural factors that may have led to the conflict.

The concept of *cultural violence* can be seen as a follow-up to Galtung's previously introduced idea of structural violence.[5] Cultural violence is any aspect (often symbolic) of a culture that can be used to legitimize violence in its direct or structural forms. Symbolic violence built into a culture does not kill or maim like direct violence or the violence built into the social structure. However, it is used to legitimize either or both, as for instance in the theory of a *Herrenvolk*, or a superior race. Cultural violence provides legitimizing frameworks for structural and direct violence, occurring at the levels of religion, ideology, art, language, and (pseudo-)science.

Structural and cultural violence are, however, contested concepts. Clearly, structural and/or cultural violence take place wherever there is slavery or gross political, cultural, and/or economic oppression; it remains debatable, on the other hand, whether social inequality constitutes structural violence and whether differing cultural norms and practices constitute violence. And what about skewed access to education, jobs, or medical care? Does simple social hierarchy (as, for example, in a family or classroom) constitute structural violence, and do culturally relative forms of life amount to cultural violence?

Achieving Positive Peace

Many cultural and spiritual traditions have identified political and social goals that are closer to positive peace than to negative peace. The ancient Greek concept of *eireinei* (see the related English word *irenic*) denotes harmony and justice as well as peace. Similarly, the Arabic *salaam* and the Hebrew *shalom* connote not only the absence of violence but also the presence of well-being, wholeness, and harmony within oneself, a community, and among all nations and peoples. The Sanskrit word *shanti* refers not only to peace but also to spiritual tranquility, an integration of outward and inward modes of being, just as the Chinese noun *ping* denotes harmony and the achievement of unity from diversity. In Russian, the word *mir* means peace, a village community, and the entire world.

Attention to negative peace, or the simple absence of war, usually results in a diplomatic emphasis on peacekeeping or peace restoring (if a war has already broken out). By contrast, positive peace focuses on peace building, the establishment of nonexploitative social structures, and a determination to work toward that goal even when a war is not ongoing or imminent. Negative peace is thus a more conservative goal, as it seeks to keep things the way they are (if a war is not actually taking place), whereas positive peace is more active and bolder, implying the creation of something that does not currently exist.

Moreover, just as there is disagreement about how best to avoid a war—that is, about how to achieve a negative peace—even among decision makers who may be well intentioned, there is at least as much disagreement about the best routes toward positive peace. Peace in its positive form is more difficult to articulate, and possibly more difficult to achieve, than its negative version. And although there is relatively little debate now about the desired end point in the pursuit of negative peace, most people agree that war in general is a bad thing. People may disagree, however, about the justification for any particular war. And when it comes to positive peace, there is substantial disagreement about specific goals and the means to achieve them. Some theorists have argued, for example, that peace should exist only as a negative symbol (the avoidance of war), because once defined as a specific ideal system to be achieved, peace becomes something to strive for, even perhaps to the point of going to war!

As Quincy Wright, one of the 20th century's preeminent researchers into the causes of war, put it:

> Wars have been fought for the sanctity of treaties, for the preservation of law, for the achievement of justice, for the promotion of religion, even to end war and to secure peace. When peace assumes a positive form, therefore, it ceases to be peace. Peace requires that no end should justify violence as a means to its attainment.[6]

Other notable figures, on the other hand, have maintained that a free society may justify—or even require—occasional violence. Thomas Jefferson, for example, wrote in 1787 that "the tree of liberty must be refreshed from time to time with the blood of patriots and tyrants." This apparent paradox—violence as a precondition for attaining its alternative—is a recurring theme in the study of and quest for peace.

There are other ways, however, in which peace can assume a positive form. And these are more than mere clichés: for example, cooperation, harmony, equity, justice, and love. Supporters of positive peace uniformly agree that a repressive society, even if it is not at war, should be considered at peace only in a very narrow sense. In addition, a nation at peace that tolerates outbreaks of domestic violence on a widespread level, despite an absence of violent conflicts with other nations, is not really at peace with itself.

Social Justice

Having recognized the importance and underdeveloped nature of positive peace, we now pay further attention to a related notion: social justice. Although almost everyone today agrees that a just society is desirable, widespread disagreement continues as to what, exactly, a just society looks like. For example, whereas capitalists and individualists tend to privilege economic freedom (from state intervention) and individual liberty—often at the cost of mass poverty, malnutrition, and homelessness—socialists and collectivists tend to value economic and social security, sometimes at the price of individual political freedoms. Also, many Western individualists assert that nations with capitalist economies and democratic political systems seldom if ever go to war with one another, whereas many non-Western and dissident Western critics of capitalism claim that capitalism by its very expansionistic nature is inherently predatory and militaristic, frequently impelling ostensibly democratic nations to invade and occupy undemocratic but economically and/or strategically important countries.

The Peace-War Continuum

"War is not sharply distinguished from peace," according to Quincy Wright. Moreover:

> Progress of war and peace between a pair of states may be represented by a curve: the curve descends toward war as tensions, military preparations, and limited hostilities culminate in total conflict; and it rises toward peace as tensions relax, arms budgets decline, disputes are settled, trade increases, and cooperative activities develop.[7]

Many people, if pressed, would agree that with respect to overt and direct violence, war and peace are two ends of a continuum, with only a vague and uncertain transition between the two. But the fact that two things may lack precise boundaries does not mean that they are indistinguishable.

For example, at dawn, night grades almost imperceptibly into day and vice versa at dusk. Yet when two things are very distinct, we say that "they are as different as night and day." The transition from war to peace may often be similarly imprecise (although the move from peace to war may be all too clear and dramatic, as was evident at the beginning of World War II, both in Europe and in the Pacific), but the characteristics of either state of affairs are often quite apparent.

Consider, for example, that the U.S. involvement in Vietnam and the rest of Southeast Asia began in the early 1950s with economic and military aid to French forces seeking to retain their colonial possessions in that part of the world. It progressed to include the deployment of relatively small numbers of "technical advisers" in the early 1960s to what was then called South Vietnam. Larger numbers of American "advisers" were then added, accompanied by combat troops in small numbers, followed by limited and eventually massive bombing of all of Vietnam (and its neighbors Laos and Cambodia). Finally, even though more than 500,000 American troops were committed to propping up a corrupt and autocratic South Vietnamese government engaged in a civil war with its own people and with what was then called North Vietnam, and even though more than 50,000 Americans died as did perhaps as many as 2 million Vietnamese, the United States never formally declared war! Yet there was no doubt that a state of war existed.

There is an increasing tendency—especially since the Vietnam War and notably during America's "War on Terror(ism)"—for nations to fight wars without formal declarations announcing their beginnings and, similarly, without solemn peace ceremonies or treaties signaling their end. The Korean War, for example, which began in 1950, was never officially declared and has never really ended (although there has been a prolonged cease-fire between North and South Korea lasting more than a half-century). One of the most destructive wars of the second half of the 20th century, the conflict between Iran and Iraq in the 1980s, which produced casualties that may well have numbered in the millions (and during which Iraq was believed to have used chemical weapons and to have been developing biological weapons), was never declared. In fact, most of the world's armed conflicts involve revolutionary, counterrevolutionary, genocidal, and/or terrorist violence with no declarations of war whatsoever, as in East Timor, Kashmir, Sudan, Congo (Zaire), Rwanda, and much of the rest of central Africa; in the former Yugoslavia and several independent nations spawned from the former Soviet Union; and in El Salvador, Nicaragua, Guatemala, Afghanistan, Angola, and Cambodia. By the same token, the U.S.-led invasions of Afghanistan and Iraq were not preceded by formal declarations of war and seem unlikely to conclude with official announcements of peace.

The reluctance of most governments to declare war, as opposed to their willingness to fight or promote wars, may also result from the fact that although wars continue to be fought and to break out, most citizens and politicians are not proud of that fact. And despite the potential for theoretical arguments over the precise transition points between different stages of conflicts, most people know at a gut level what is meant by war. There is also little doubt that, given the choice, most would prefer peace.

Measuring Peace

Defining and Redefining Peace

The concept of peace remains notoriously difficult to define, the foregoing passages notwithstanding. The difficulties in defining the concept of peace may partly explain why there have been so few attempts to measure states of peace across nations. Although scholars have made

numerous attempts to measure and operationalize "war," it is only recently that similar efforts have been made to measure peace.

Is it possible to identify the social structures and political institutions that create and maintain peace, however defined? The Global Peace Index (GPI) is a step in this direction: a measurement of peace as the "absence of violence" that seeks to determine what cultural attributes and institutions are associated with states of peace. [8]

The Global Peace Index

Unlike such things as Gross National Product or unemployment rate, the peacefulness of a country does not readily lend itself to direct measurement. However, the GPI, produced by the Institute for Economics and Peace in Sydney, Australia, and updated annually, has succeeded in generating a credible assessment. The GPI offers the promise of enabling researchers not only to rank countries with regard to their peacefulness, but—more importantly—to begin assessing what factors correlate with peaceful versus nonpeaceful societies. Toward this end, the 2012 GPI, for example, examined 158 countries, using 23 qualitative and quantitative indicators that reflect three broad themes, namely, each country's 1) level of internal safety and security, 2) involvement in domestic or international conflict, and 3) degree of militarization.

GPI Results

The GPI for 2012 shows the relative peacefulness of advanced industrial societies, primarily in Europe, compared with war-torn and impoverished nations, predominantly African and Asian. It also suggests that for the first time since 2009, the world improved in peacefulness overall. All regions, excluding the Middle East and North Africa, saw an improvement. This follows two consecutive years of overall decline in peacefulness, when many countries experienced heightened disharmony linked to rapid rises in food, fuel, and commodity prices and the global economic downturn.

Iceland is ranked as the country most at peace, followed by Denmark and New Zealand. Small, stable, and democratic countries are consistently ranked highest; most of the top 20 are western or central European nations. The Asia-Pacific region experienced the largest average rise in peacefulness, with the most significant gains in Sri Lanka, Bhutan, Philippines, and Nepal. Syria's descent into civil war caused its score to deteriorate by the largest margin. Africa became slightly more peaceful, with notable improvements in Zimbabwe, Madagascar, and Gabon and, for the first time since the GPI was launched in 2007, it is not the least peaceful region—that dubious honor falls to the Middle East and North Africa.

Qatar is the highest placed Middle Eastern country (and nondemocracy), in 12th position. Bhutan moved into the top 20 for the first time, mainly as a result of easing tensions surrounding ethnic Nepali refugees. Norway dropped out of the top 10 to 18th position, the result of a murderous rampage by a deranged white supremacist in July 2011. Sri Lanka experienced the greatest improvement in its overall peacefulness, following the apparent ending of decades of civil war. War-ravaged Somalia remained the country least at peace in 2012, with ongoing conflict in several regions (with the notable exception of Somaliland, a self-styled independent state). Afghanistan dropped to the second-lowest position. The United States ranks 88th, one notch ahead of China and below such countries as Jordan, Mongolia, Sierra Leone, and Vietnam. And Russia is number 153, just behind North Korea and three positions ahead of Israel.

Figure 1.1 GPI 2012 Rank Ordering of Nations

Rank Country Score

1. Iceland 1.113
2. Denmark 1.239
3. New Zealand 1.239
4. Canada 1.317
5. Japan 1.326
6. Austria 1.328
7. Ireland 1.328
8. Slovenia 1.330
9. Finland 1.348
10. Switzerland 1.349
11. Belgium 1.376
12. Qatar 1.395
13. Czech Republic 1.396
14. Sweden 1.419
15. Germany 1.424
16. Portugal 1.470
17. Hungary 1.476
18. Norway 1.480
19. Bhutan 1.481
20. Malaysia 1.485
21. Mauritius 1.487
22. Australia 1.494
23. Singapore 1.521
24. Poland 1.524
25. Spain 1.548
26. Slovakia 1.590
27. Taiwan 1.602
28. Netherlands 1.606
29. United Kingdom 1.609
30. Chile 1.616
31. Botswana 1.621
32. Romania 1.627
33. Uruguay 1.628
34. Vietnam 1.641
35. Croatia 1.648
36. Costa Rica 1.659
37. Laos 1.662
38. Italy 1.690
39. Bulgaria 1.699
40. France 1.710
41. Estonia 1.715
42. South Korea 1.734
43. Lithuania 1.741
44. Argentina 1.763
45. Latvia 1.774
46. United Arab Emirates 1.785
47. Kuwait 1.792
48. Mozambique 1.796
49. Namibia 1.804
50. Ghana 1.807
51. Zambia 1.830
52. Sierra Leone 1.855
53. Lesotho 1.864
54. Morocco 1.867
55. Tanzania 1.873
56. Burkina Faso 1.881
56. Djibouti 1.881
58. Mongolia 1.884
59. Oman 1.887
60. Malawi 1.894
61. Panama 1.899
62. Jordan 1.905
63. Indonesia 1.913
64. Serbia 1.920
65. Bosnia and Herzegovina 1.923
66. Albania 1.927
66. Moldova 1.927
68. Macedonia (FYR) 1.935
69. Guyana 1.937
70. Cuba 1.951
71. Ukraine 1.953
72. Tunisia 1.955
73. Cyprus 1.957
74. Gambia 1.961
75. Gabon 1.972
76. Paraguay 1.973
77. Greece 1.976
78. Senegal 1.994
79. Peru 1.995
80. Nepal 2.001
81. Montenegro 2.006
81. Nicaragua 2.006
83. Brazil 2.017
84. Bolivia 2.021
85. Ecuador 2.028
86. Swaziland 2.028
87. Equatorial Guinea 2.039
88. United States of America 2.058
89. China 2.061
90. Dominican Republic 2.068
91. Bangladesh 2.071
92. Guinea 2.073
93. Papua New Guinea 2.076
94. Trinidad and Tobago 2.082
95. Angola 2.105
95. Guinea-Bissau 2.105
97. Cameroon 2.113
98. Uganda 2.121
99. Madagascar 2.124
99. Tajikistan 2.124
101. Liberia 2.131
102. Mali 2.132

103. Sri Lanka 2.145
104. Republic of Congo 2.148
105. Kazakhstan 2.151
106. Saudi Arabia 2.178
107. Haiti 2.179
108. Cambodia 2.207
109. Belarus 2.208
110. Uzbekistan 2.219
111. Egypt 2.220
111. El Salvador 2.220
113. Jamaica 2.222
114. Benin 2.231
115. Armenia 2.238
116. Niger 2.241
117. Turkmenistan 2.242
118. Bahrain 2.247
119. Rwanda 2.250
120. Kenya 2.252
121. Algeria 2.255
122. Eritrea 2.264
123. Venezuela 2.278
124. Guatemala 2.287
125. Mauritania 2.301
126. Thailand 2.303
127. South Africa 2.321
128. Iran 2.324
129. Honduras 2.339
130. Turkey 2.344
131. Kyrgyz Republic 2.359
132. Azerbaijan 2.360
133. Philippines 2.415
134. Ivory Coast 2.419
135. Mexico 2.445
136. Lebanon 2.459
137. Ethiopia 2.504
138. Burundi 2.524
139. Myanmar 2.525
140. Zimbabwe 2.538
141. Georgia 2.541
142. India 2.549
143. Yemen 2.601
144. Colombia 2.625
145. Chad 2.671
146. Nigeria 2.801
147. Libya 2.830
147. Syria 2.830
149. Pakistan 2.833
150. Israel 2.842
151. Central African Republic 2.872
152. North Korea 2.932
153. Russia 2.938
154. Democratic Republic of the Congo 3.073
155. Iraq 3.192
156. Sudan 3.193
157. Afghanistan 3.252
158. Somalia 3.392

Source: Institute for Economics & Peace and Global Peace Index.

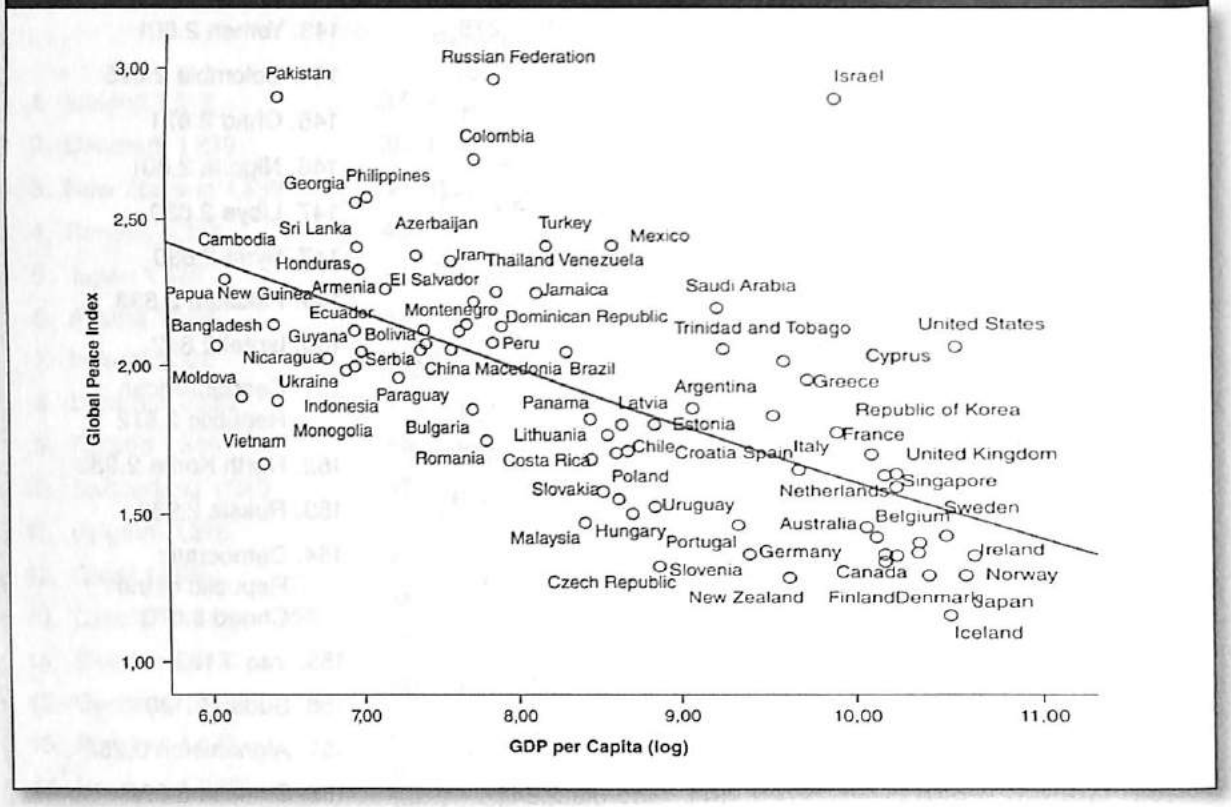
The GPI researchers explored possible correlations between the GPI and other economic and societal indicators—including measures of democracy and transparency, education, and material wellbeing. Among the GPI indicators, "Level of perceived criminality in society" showed a substantial overall deterioration. The five factors that diminished most substantially were all measures of the security situation, reflecting the turmoil that has roiled the Arab world and beyond. The Political Terror Scale showed the greatest improvement, although there were also gains in several indicators of militarization. (Since annual GPI findings are largely based on data accumulated during the prior 12-month period, they can be expected to fluctuate in response to current events.)

There is a statistically significant correlation, although not a dramatic one, between Gross Domestic Product (GDP) per capita and the peacefulness of a country.

The United States

The United States was selected for the first national peace index, principally due to the high quality of state-level data dating back to the early 1980s and the existence of a large literature of related studies, which estimate the various costs of violence as well as the costs associated with containing violence. Compared to other nations in the Global Peace Index, the United States is

Figure 1.2 The Economic Geography of Peace



Source: Institute for Economics & Peace and Global Peace Index.

midranking. The peacefulness of the United States can be further analyzed by comparing the internal U.S. peace score from the Global Peace Index with the average GPI score for each of the categories measured. The United States performs relatively well on the majority of these internal indicators when compared to the rest of the world and particularly well on measures of internal cohesion: low levels of organized internal conflict and a high level of political stability. The United States also performs well on citizen perception of crime within the country and on the likelihood of violent demonstrations.

However, as noted—and is worth repeating—the overall score of the United States ranks it a less-than-impressive 88th worldwide out of the 158-ranked nations, mainly due to its wars and defense expenditures. The United States is commonly characterized as having a higher rate of violence than many other developed economies, yet trends in crime over the past 20 years have fluctuated substantially, for reasons that have been much debated. At the beginning of the 1980s, the U.S. crime rate was comparable to that of other developed nations; violence then steadily increased to a peak in the mid-1990s and has since been falling. However, this reduction has been accompanied by a steadily *increasing* incarceration rate, which has significant economic consequences.

It is striking that the United States, with the largest economy in the world and one of the highest per capita GDP, nonetheless has a relatively low level of peacefulness compared with other

developed economies. This suggests that the potential economic gains of domestic peacefulness may well be considerable. In the context of the lingering effects of the Global Financial Crisis, this is especially pertinent, because the additional economic activity that would be created through improvements in peace can provide a powerful stimulus to aid economic recovery.

The opportunity to move expenditures from violence-containment industries to more economically productive industries is significant. This can be exemplified by the opportunity to build a highway instead of a jail or the expansion of employment in teachers rather than prison guards. Although such efforts would not necessarily generate additional economic activity in themselves, they would create the foundation for a more productive economy. The realization of such additional economic activity is defined as the "dynamic peace dividend," which can result in a substantial lift in GDP and employment.

Compared to most other countries, additional data are available for the United States, permitting a more fine-grained analysis. The results indicate that states in the northern part of the United States are consistently more peaceful than those in the south, and also that the United States performs well on the majority of internal indicators compared with the rest of the world. These indicators are:

- Number of homicides per 100,000 people
- Number of violent crimes per 100,000 people
- Number of jailed population per 100,000 people
- Number of police officers per 100,000 people
- Availability of small arms

Source: Institute for Economics & Peace and Global Peace Index.

Key Findings of the U.S. Peace Index

1. **From 1995 to 2009, the United States became more peaceful**

   Peace improved by 8% from 1995 to 2009, driven by a substantial decrease in the rates of homicide and violent crime. However, these improvements were largely offset by increases in the incarceration rate, which, as of year-end 2010, stood at 0.7% of resident adults, the highest in the world.

2. **The five most peaceful states are Maine, New Hampshire, Vermont, Minnesota, and North Dakota**

   The Northeast is the most peaceful region in the United States., with all of its states ranking in the top half of the U.S. Peace Index. This includes the heavily populated states of New York, Pennsylvania, and New Jersey. The least peaceful states are Louisiana, Tennessee, Nevada, Florida, and Alabama.

3. **Peace is linked to opportunity, health, education, and the economy**

   Statistically significant correlations were found between a state's peacefulness and 15 different social and economic factors. These related to health, education, demographics and economic opportunity but not to political affiliation.

Many of these factors can be seen as measures of opportunity. States that ranked higher on these social and economic factors tended to have higher scores in peace, which suggests that access to basic services including education, health care, and ultimately the opportunity to succeed are key prerequisites to a more peaceful society.

4. **Peace is not linked to political affiliation**

   Neither predominantly Republican nor Democratic states had a discernible advantage in peace. Although the top five states are largely Democratic and the bottom five states are largely Republican, once the mid-ranking states were included in the analysis, no overall political effect was found.

5. **The potential economic gains from improvements in peace are significant**

   Improvements in peace would result in the realization of substantial savings for both governments and society. If the United States reduced its violence to the same levels as Canada, for example, local governments would collectively save about $89 billion, while the same reductions in the level of violence would provide an economic stimulus of approximately $272 billion. The release of "trapped productivity" via a reduction of violence would create a stimulus that could generate an additional 2.7 million new jobs, effectively lowering the U.S. unemployment rate by 20%.

6. **On a per capita basis, the top five states with the most to gain from reductions in violence are Louisiana, Florida, Nevada, Alaska, and New Mexico**

   The total economic effect of violence tends to be greatest in the most violent states; however, several states have a structurally higher cost of violence because of the nature of that violence. For instance, lost productivity from assault and lost productivity from incarceration are the largest shares of the total cost of violence, so states with high levels of incarceration and assault tend to have a higher per capita cost. The large populous states with high levels of incarceration have the most to gain, such as California, Florida, and Texas.

7. **Growing incarceration is a drag on the economy and in recent years has not had a significant effect on violent crime**

   While homicide and violent crime rates have fallen, the economic benefits to flow from these decreases have been largely offset by the costs associated with the increase in the incarceration rate. In recent years, there has been no statistically meaningful relationship between increases in incarceration rates and decreases in violent crime.

8. **There is a strong correlation between people's satisfaction with their access to basic services and the peacefulness within each state.**

   The Gallup Basic Access sub-index is based on a survey in which 13 questions assess availability of basic needs for a healthy life, specifically, access to clean water, medicine, a safe place to exercise, and affordable fruits and vegetables; enough money for food, shelter, and health care; having health insurance, access to a doctor and a dentist; as well as satisfaction with one's community, which includes a sense that it is improving as a place to live, and that the respondents feel safe walking alone at night.

9. **Six of the 10 most populous states were also among the top 10 states whose peacefulness improved**

   These were New York, California, Texas, Georgia, Illinois, and Michigan.

10. **North Dakota, South Dakota, and Montana had the three most significant declines in peacefulness**

    This result stands out, since these three states all declined in peacefulness by over 40%; nonetheless, they are still relatively peaceful and in the top half of the states generally.

Culture of Peace

In 1999, the United Nations (UN) General Assembly launched a program of action to build a "culture of peace" for the world's children, which envisaged working toward a positive peace of justice, tolerance, and plenty. The UN defined a culture of peace as involving values, attitudes, and behaviors that

- reject violence,
- endeavor to prevent conflicts by addressing root causes, and
- aim at solving problems through dialogue and negotiation.

The UN proposed that such a culture of peace would be furthered by actions promoting education for peace and sustainable development, which it suggested was based on human rights, gender equality, democratic participation, tolerant solidarity, open communication, and international security. However, these links between the concept of peace and its all alleged causes were presumed rather than systematically measured. For example, while advocates of liberal peace theory have held that democratic states rarely attack each other, the ongoing wars in Iraq, Afghanistan, and elsewhere demonstrate how some democratic countries can be militant or belligerent—the justification for war often being that peace is ultimately secured through violence or the threat of violence.

A FINAL NOTE ON THE MEANINGS OF PEACE

Neither the study nor the pursuit of peace ignores the importance of conflict. Peace and conflict studies do not aim to abolish conflict any more than peace practitioners expect to eliminate rivalry or competition in a world of finite resources and imperfect human conduct. (Analogously, the field of medicine does not realistically seek to eliminate all bacteria or viruses from the world, although it is committed to struggling against them for human betterment.)

Where possible, peace and conflict studies seek to develop new avenues for cooperation, as well as to reduce violence, especially organized, state-sanctioned violence and the terrorizing violence perpetrated by and against nonstate actors. It is this violence, by any definition the polar opposite of peace, that has so blemished human history and that—with the advent of nuclear weapons, biochemical weapons, and other weapons of global destruction—now threatens the future of all life on this planet. And it is the horror of such violence, as well as the glorious and perhaps even realistic hope of peace (both negative and positive), that make peace and conflict studies especially frustrating, fascinating, and essential.

NOTES

1. *Webster's Third New International Dictionary.* 1993. Springfield, MA: Merriam-Webster, Inc., 1660.
2. Mo Tzu. 1967. *Basic Writings of Mo Tzu.* New York: Columbia University Press.
3. Raymond Aron. 1966. *Peace and War.* New York: Doubleday.
4. Johan Galtung. 1985. "Twenty-Five Years of Peace Research: Ten Challenges and Responses." Journal of Peace Research 22: 141–158.
5. Johan Galtung. 1990. "Cultural Violence." *Journal of Peace Research, August 1990, vol. 27 no. 3, 291-305.*
6. Quincy Wright. 1964. *A Study of War.* Chicago: University of Chicago Press.
7. Ibid.
8. For the Global Peace Index and related documents, see: http://www.visionofhumanity.org/gpi-data/#/2011/scor. Tables reproduced with permission by Vision of Humanity.

QUESTIONS FOR FURTHER REFLECTION

1. Is peace an absolute, or are there degrees of peace, both outer and inner?
2. To what extent are peace and war, and nonviolence and violence, mutually exclusive?
3. Under which circumstances, if any, is conflict inescapable and perhaps even desirable?
4. Under which circumstances, if any, is violence inescapable and perhaps even desirable?
5. Assess the strengths and weaknesses of such empirical tools as the GPI for measuring peace and its absence.

SUGGESTIONS FOR FURTHER READING

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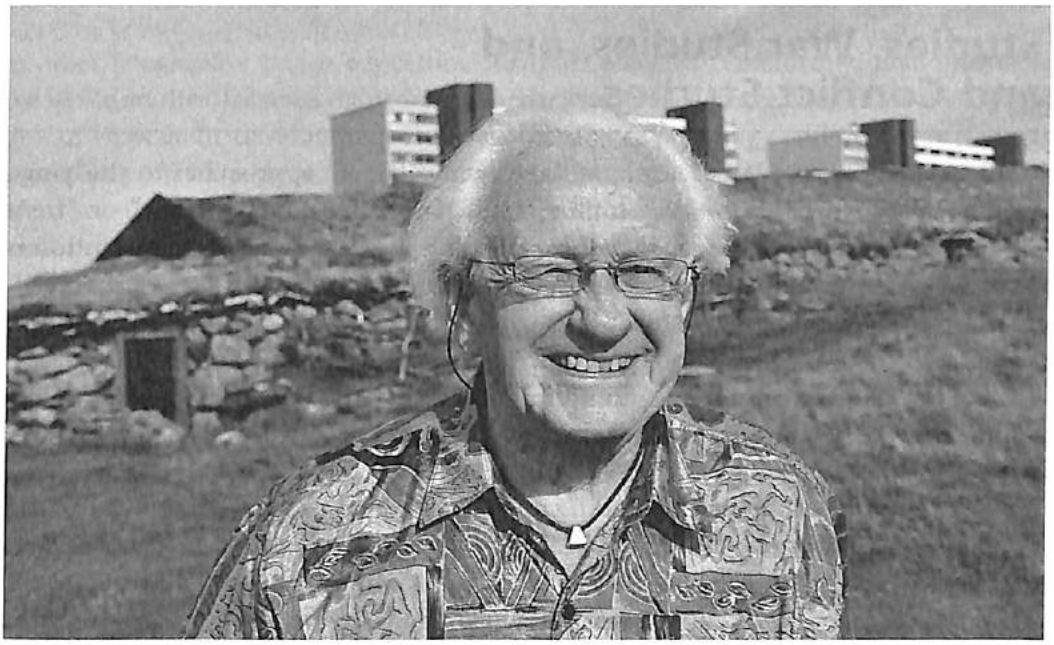
CHAPTER 2

PEACE AND CONFLICT STUDIES, EDUCATION, AND RESEARCH



Johan Galtung, a founder of peace studies and peace research.

Source: Used with permission.

Peace does not appear so distant as it did. I hope it will come soon, and come to stay; and so come to be worth the keeping in all future time.[1]

—President Abraham Lincoln

Conflict is a theme that has occupied the thinking of men more than any other, save God and love.[2]

—Anatol Rapoport

Peace studies is a child of its time, which in this case is the nuclear and Cold War era. As a transdisciplinary inquiry into the nature of peace and the reasons for wars and other forms of human conflict, peace studies has grown exponentially since its birth during the mid-20th century.

Precursors of peace studies, peace education, and peace research go back to ancient times. But the systematic practice of peace education began in the early 20th century, partly in reaction to World War I. It took off after World War II, as did the earliest higher education-based peace studies programs.[3]

Similarly, although the origins of peace research date back to religious and ethical debates on peace and war scattered across various world cultures and traditions, and the forerunners of scientific approaches to investigating war and peace emerged in conjunction with World War I, peace and conflict research as a distinct scholarly discipline took off soon after World War II. It continues to be alive and vibrant today.

Peace Studies, War Studies, and Peace and Conflict Studies

How does one study peace? Whereas there have been different approaches to studying peace, contemporary Western peace studies (or *irenology*, from the Greek "eirene" or "Irene," the goddess of peace) focuses on the analysis and prevention, de-escalation and solution of conflicts by peaceful, or nonviolent means, thereby seeking victory for all parties involved in the conflict. This is in contrast to war studies (or what Johan Galtung, a founder of peace studies, calls *polemology*, from the Greek "polemos," or "the spirit of war") and security studies, which tend to focus on the factors leading to victory or defeat in conflicts waged principally by violent means and to the increased or decreased "security" of one or more, but not all, parties involved.

Importantly, since peace studies investigates the reasons for and outcomes of large- and small-scale conflicts, as well as the preconditions for peace, the discipline is also known as *peace and conflict studies* (PCS or PACS). PCS allows one to examine the reasons for and prevention of wars, as well as the nature of violence, including social oppression, discrimination, and marginalization, or what Galtung and others call *structural violence*. Through the rigorous analysis of peace and conflict, one can also learn peace-making strategies. Peace and conflict studies is accordingly an academic field that identifies and analyzes individual and collective violent and nonviolent behaviors as well as the structural mechanisms underlying social conflicts in order to understand and transform those processes that might lead to a more peaceful planet.

Peace and conflict studies also addresses the effects of political and social violence, the causes of this violence, and what can be done to resolve conflicts peacefully. The rapid growth in these programs in colleges and universities in North America, Western Europe, and elsewhere reflects growing popular alarm about war violence, and other global perils (including the nuclear threat, low intensity conflict, the costs of arms races, environmental destruction, domestic violence, ethnic and regional conflicts, terrorism, etc.). People concerned about violence are turning to education as a means to heighten awareness about the causes of violence and to promote nonviolent alternatives to violent means of conflict resolution.

Peace Education

Peace education is the theory and practice of education about peace and nonviolence and a commitment to building a more cooperative society by utilizing the concepts and practices of peace studies, conflict resolution, and nonviolence. The first initiatives to develop peace education mainly focused on the horrors of war and statistics about weapon systems. Today, peace education comprises a wide variety of courses and programs aimed at giving students at all levels and of all ages the tools to reduce violence and oppression. These include strategies for avoiding bullying and increasing citizen empowerment.

According to Betty Reardon, a noted American peace educator,

> the general purpose of peace education . . . is the development of an authentic planetary consciousness that will enable us to function as global citizens and to transform the present human condition by changing the social structures and patterns of thought that have created it.[4]

Like other progressive peace educators, Reardon takes "a transformational approach," one, that, like peace studies, is based on peace research. The goal of peace education at all levels, from this point of view, is the development and transmission of pedagogy and practices that shift current conventional values, thinking, behaviors, and institutions away from violence and toward nonviolent solutions to interpersonal, social, and political disputes.

Toward this end, The Peace Education Foundation writes and publishes materials for conflict-resolution curricula currently in use in more than 20,000 schools around the world. Like others in the field, this nongovernmental organization (NGO) views its mission as the education of children and adults in the dynamics of conflict and the promotion of the skills of peacemaking in homes, schools, communities, nation-states, and the world.

There are also numerous United Nations (UN) declarations on the importance of peace education. Koichiro Matsuura, past director-general of the United Nations Educational, Scientific, and Cultural Organization (UNESCO), has written that peace education is of "fundamental importance to the mission of UNESCO and the United Nations." There has also been some recent integration of peace education with education for democracy, human rights, and nonviolent conflict resolution.

The Israeli peace educator Gavriel Salomon has presented some major challenges facing peace educators around the world today, especially those working in zones of ongoing and seemingly intractable conflict (such as Israel and Palestine).[5] In addition to political opposition to their programs and severe socioeconomic inequalities in the regions where they operate, peace education practitioners also face such challenges as conflicting collective narratives, historical memories, and contradictory beliefs. According to Salomon, additional challenges

> that appear to concern the heart of peace education [are] the need to create a societal "ripple effect" whereby the impact of peace education programs spreads to wider social circles . . . increasing the endurance of desired program effects . . . the need for diverse programs . . . [and] the need to find ways to bridge the gap that divides the cultivation of desired general dispositions, principles, and values and their application in specific situations.

To maximize the enduring social impact of peace education, effective programs of peace education should take ethnic and social differences into account and combine general dispositions

to peace with specific context-sensitive applications of peace pedagogy and practice. Peace and conflict studies may be viewed, in part, as the dimension of peace education that is increasingly focused on institutions of higher learning.

The Dimensions of Peace and Conflict Studies

As a scholarly enterprise, PCS is multi- or transdisciplinary, incorporating important theories and research findings from anthropology, sociology, political science, international relations, psychology, evolutionary biology, ethics, theology, and history. PCS is also multilevel, since it examines intrapersonal (or inner) peace and conflict, as well as peaceful and conflictual *irenic and polemic* relations between individuals, neighbors, ethnic groups, organizations, states, and civilizations (or outer peace and conflict).

Central to peace studies, peace education, and peace research is a concern not just with understanding the world but with changing it. This is a bone of contention for academics who espouse "value neutrality and scientific impartiality," especially by such more conventional disciplines as political science, international relations, and strategic or security studies.

PCS is both normative (or prescriptive) and analytic (or descriptive). As a normative discipline, peace and conflict studies often makes value judgments, such as peace and nonviolence are *better* than war and violence. But it makes these judgments both on the basis of ethical postulates (i.e., humans *should* resolve conflicts as nonviolently as possible) and of analytic descriptions (i.e., most violent efforts to resolve conflicts *in fact* result in less social stability than nonviolent means of conflict resolution).

The Canadian peace scholar Conrad Brunk argues that the explicit value commitment of peace studies to peace requires another "value central to the very definition of Peace Studies—that violence is undesirable, and that where the same human goods can be achieved by them, nonviolent means are preferable to violent ones."[6] Therefore, the normative components of PCS are no different from many other scholarly endeavor. Accordingly, what distinguishes PCS from most academic fields are principally its subject matter—peace, violence, conflict, and power—its inter- (or multi-) disciplinary methodology, and its aim of identifying, testing, and implementing many different strategies for dealing with conflict situations.

Peace and conflict studies is both theoretical and applied. Johan Galtung is a Norwegian sociologist and pioneer of the field who founded Transcend Peace University, a website that offers certificate-level courses and a master's degree in peace and conflict transformation. "Peace studies," writes Galtung,

> is about relationship repair on all levels, so it's crucial that these programs include both theory and practice. The field is moving beyond conflict resolution toward the teaching and practice of conflict transformation and reconciliation, which includes healing past wounds and creating long-term, sustainable peace between antagonistic parties.

At the theoretical level, PCS aims to uncover the roots of conflict and cooperation by examining and proposing theoretical models to explain violent and nonviolent individual and collective behaviors, both historically and cross-culturally. By revealing the underlying structures that give

rise to human conflict and that support conflict resolution, PCS also hopes to transform the underlying causes, develop preventive strategies, and teach conflict transformation skills.

Fieldwork is often an important part of peace studies, with students taking extended internships in conflict zones where they can learn and apply dialogue, negotiation, and mediation skills. The fruits of peace studies may sometimes be difficult to see and take long to come to fruition, but that does not discourage Mary King, a professor at the University for Peace (in Costa Rica), who has stated, "When you are dealing with millennia during which war has been the ultimate arbiter of conflicts, you can't expect change in a decade or two."

Peace and conflict studies also aspires to be multicultural and cosmopolitan, in part citing the lives and works of Gandhi and Martin Luther King, Jr. as its paragons. However, true multiculturalism and cosmopolitanism remain more an aspiration than a reality for the field, since most peace studies programs and centers are located in the West (although their influence is increasing elsewhere, particularly in Australasia).

Peace and conflict studies is both a pedagogical activity, in which teachers and learners come together to understand the roots of peace and conflict, and a research enterprise, in which researchers propose rigorous theories and methods for formulating and testing hypotheses about the sources of conflict and the institutionalization of lasting cultures of peace.

PCS teachers, students, and researchers are a key component of the more generic field of peace education, which ranges from primary school to postdoctoral pedagogical activities. And they may also interact with peace and antiwar activists and political movements engaged in "peace work." This reflects the dual nature of PCS as a scholarly enterprise and as a force for the pacification of the Earth. Peace education and peace research, as complements to peace studies, strive not just to study but also to achieve peace.

PCS as Pedagogical Activity

Everyday citizens, teachers, and students have long been motivated by an interest in peace. American student interest in what is today considered peace studies first appeared in the form of campus clubs at U.S. colleges in the years immediately following the Civil War. Similar movements appeared in Sweden at the end of the 19th century and elsewhere in Europe soon after. These were usually student-originated discussion groups, not formal courses included in college curricula.

Because of its destructiveness, World War I, or "The War to End All Wars," was a turning point in many Western attitudes to war. When the leaders of France, Britain, and the United States (led by Georges Clemenceau, David Lloyd George, and Woodrow Wilson) met to sign the Treaty of Paris in 1919, and to decide the postwar future of Europe, President Wilson proposed his famous Fourteen Points for peacemaking. These included breaking up European empires into nation-states and the establishment of a League of Nations. These proposals were the background to a number of developments in the emergence of PCS as an academic discipline, such as the founding in 1919 of the first chair in International Relations (at Aberystwyth University in Wales).

As the noted peace scholar Elise Boulding has pointed out, peace studies was initiated by scholars who were consciously separating themselves from the older, more established discipline of international relations. Other peace studies educators have argued that the field of international relations itself was initially developed with a peace studies focus to avoid war. Peace studies

started out on most American college campuses within departments emphasizing international relations, which to many scholars and activists had reneged on the study and promotion of war avoidance. To address this pedagogical gap, peace studies began to develop a broader base on colleges and universities throughout North America.

Just after World War II, many university courses on peace and war were established. The first undergraduate academic program in peace studies in the United States was created in 1948 at Manchester College in Indiana. It was not until the late 1960s in the United States that student and professorial objections to the Vietnam War stimulated more universities to offer courses about peace, whether in an undergraduate major or postgraduate degree program or as a course within such traditional majors as political science and sociology. For example, Manhattan College, a Catholic college in New York City, began its peace studies program in 1968, while Colgate University started one in 1969.

In England, the first school of peace studies was founded at Bradford University in 1973. Like many others, Bradford's program defines peace not just as an absence of large-scale conflict and violence—known as negative peace—but also as structural cooperation that fosters justice and freedom, also known as positive peace, based on human rights, equal access to education, and just social and political structures.

In the 1970s, many North American universities offered courses about the war in Vietnam. Many faculty who created these programs were responding to student demands to create courses that "had relevance to their lives."

Growth in peace studies programs accelerated during the 1980s as students and the general public became increasingly concerned about the prospects of nuclear war. Their concern about the fate of the planet spurred the creation a host of new courses and programs aimed at promoting global survival. Key components of peace studies during this period included courses on violence and war, the nuclear arms race and the threat of nuclear destruction, international conflict, alleged aggressive tendencies in human nature, disarmament, discrimination against minorities, group conflicts, nonviolent action, defense policy, group dynamics, environmental damage, cultural integration, the unequal distribution of wealth, women's roles, Central America, and structural violence.

With the dissolution of the Soviet Union and the end of the Cold War in 1991, the emphasis of peace studies courses at many North American colleges shifted somewhat from international politics to the domestic scene, emphasizing structural, domestic, and civil violence. In 1991, the United States Institute of Peace[7] published *Approaches to Peace: An Intellectual Map*, which listed the following headings for the study of peace: traditional approaches (collective security and deterrence); international law approaches (international law, interstate organizations, third-party dispute settlement); new approaches (transnationalism, behavioral approaches, conflict resolution); and political systems approaches (internal systems and systemic theories/world systems). Many international organizations, agencies, and NGOs, from the United Nations, Organization for Security and Cooperation in Europe (OSCE), European Union (EU), and the World Bank to the International Crisis Group, International Alert, and others, began to draw on PCS research. By the mid-1990s, peace studies curricula in the United States had somewhat shifted from research and teaching about negative peace to positive peace.

Since the beginning of the new millennium, course offerings in peace studies have expanded to include topics such as: north-south relations; development, debt, and global poverty; the

environment, population growth and resource scarcity; feminist perspectives on peace, militarism, and political violence; and nonviolent alternatives to terrorism. There is also an increasing emphasis on conflict resolution and transformation.

PCS Today

Peace and conflict studies today is widely researched and taught in a large and growing number of institutions. The number of universities offering peace and conflict studies courses is hard to estimate, mostly because courses may be taught in different departments and have different names. The International Peace Research Association website (http://www.iprafoundation.org) provides one of the most authoritative listings available.

A 2008 article in the *International Herald Tribune* mentions over 400 programs of teaching and research in peace and conflict studies, noting in particular those at the United World Colleges, The Peace Research Institute Oslo (PRIO), the American University (Washington, D.C.), Notre Dame University, George Mason University (Virginia), Syracuse University, the University of Bradford (which is said to have the largest and most comprehensive university-based peace studies program), the UN-mandated Peace University (UPEACE in Ciudad Colón, Costa Rica), Lund and Uppsala Universities (Sweden), the Universities of Queensland and Sydney (Australia), Innsbruck and Klagenfurt Universities (Austria), Universitat Jaume I in Castellón de la Plana (Spain), and the Universities of Oslo and Tromsø (Norway). Other notable programs can be found at the University of Waterloo (Canada), University of Hiroshima (Japan), King's College (Department of War Studies, University of London), London Metropolitan University, Sabanci University (Istanbul, Turkey), Marburg University (Germany), Sciences Po (Paris), University of Amsterdam (The Netherlands), the University of Otago (New Zealand), St Andrews University (Scotland), and the Universities of Coventry and York (England). The Rotary Foundation, the Joan B. Kroc Foundation, and the UN University (Tokyo) support several international academic teaching and research programs.

Of the several hundred North American colleges and universities with peace studies programs, about 1/2 are in church-related schools, about a third are in large public universities (such as the University of California at Berkeley and the University of Washington), approximately one-fifth are in non-church-related private colleges, and a smaller number are in community colleges. About half of the church-related schools that have peace studies programs are Roman Catholic. Other religious denominations with more than one college or university with a peace studies program are the Mennonites, Quakers, United Church of Christ, and Church of the Brethren. About 80% of these programs are at the undergraduate level and the rest at the graduate level. Only about 10% of these North American colleges and universities have both undergraduate and graduate programs.

The Joan Kroc Institute for International Peace Studies at the University of Notre Dame recently added a new doctoral program. Other institutions of higher education responding to the burgeoning interest in the field include the University for Peace—established by the United Nations in demilitarized Costa Rica in 1980. Peace studies programs are noticeable by their absence at elite private universities, where departments of Political Science and Government hold sway along with programs in Security and International Studies.

PCS programs and international security and diplomacy research agendas have also become common in institutions located in conflict, postconflict, and developing countries and regions, for example, the National Peace Council (Sri Lanka), Centre for Human Rights (University of

Sarajevo, Bosnia), Chulalongkorn University (Thailand), National University of Timor (Timor-Leste), University of Kabul (Afghanistan), Makerere University (Uganda), Tel Aviv University (Israel), and so on.

At the present time, PCS is somewhat shifting its focus from interstate rivalry to intrastate conflict, as well as to problems caused by interpersonal violence. Whereas peace studies faculty used to come mostly from international relations and political science, they now are drawn from many different fields, including social welfare and education, such conventional disciplines as psychology, philosophy, and sociology, and recently minted graduate-degree programs in PCS itself. While the original emphasis of PCS in the United State was on the cessation of war (most specifically the war in Vietnam), today, the field is addressing such hot-button issues as intrapsychic and interpersonal conflicts as well as wars, terrorism, trafficking, refugees, treaties, and international efforts to curtail war and to promote an ecologically sustainable future. Additionally, many scholars on university campuses are trying to apply the insights of principled and strategic nonviolence (to be discussed in Chapter 23) to diverse settings.

PCS as Research

Although individual thinkers such as Plato and Kant long recognized the centrality of peace for inner and outer harmony, it was not until the 1950s and 1960s that peace studies began to emerge as an academic discipline with its own research tools, a specialized set of concepts, and such forums for discussion as conferences and journals. Peace research institutes were established in Europe in the 1960s, although many of these do not offer formal peace studies courses. Some of the oldest and most prominent peace research centers include PRIO in Oslo, founded in 1959; the Department of Peace and Conflict Research at Uppsala University in Sweden; and the Stockholm International Peace Research Institute (SIPRI). The work of such peace researchers as Johan Galtung and John Burton, and the establishment as of such scholarly journals as *The Journal of Conflict Resolution* and *The Journal of Peace Research* in the 1950s and 1960s, reflected the growing interest in and academic stature of the field.

In 1963, the Peace Research Society was founded in Sweden. The group of initial members included Walter Isard, Kenneth Boulding, and Anatol Rapoport. In 1973, this group became the Peace Science Society. Peace science was viewed by these academics as an interdisciplinary and international effort to develop a set of theories, techniques, and data to better understand and mitigate conflict. Peace science attempts to use quantitative techniques developed in economics and political science, especially game theory and econometrics, otherwise seldom used by researchers in peace studies. The Peace Science Society website makes available the *Correlates of War*, one of the best-known collections of data on international conflict. The society also publishes two scholarly journals: *The Journal of Conflict Resolution* and *Conflict Management and Peace Science.*

In 1964, the International Peace Research Association (IPRA) was formed at a conference organized by Quakers in Switzerland. The IPRA holds a biennial conference. IPRA research typically focuses on qualitative, comparative, institutional, and historical research.

In 2001, the Peace and Justice Studies Association (PJSA) was created after the merger of two precursor organizations. The PJSA is the North American affiliate of IPRA. It publishes a newsletter (*The Peace Chronicle*) and holds annual conferences on themes related to the organization's mission "to create a just and peaceful world" through research, scholarship, pedagogy, and activism.

Some Contributions of PCS

Scholars and others working in peace and conflict studies have made significant contributions to the policies of many nongovernmental organizations, development agencies, international financial institutions, and the UN system as well as to human knowledge more generally. Specific scholarly contributions have been made to conflict resolution and citizen diplomacy; economic, social, and political development and reform; peacekeeping, mediation, early warning, prevention, statebuilding and peacebuilding; and the causes of war and the reasons for peace, among others.

More recently, social scientists and other peace researchers, while still in part focusing on assessing historical trends in warfare and violence, have also increasingly analyzed the comparative efficacy or failure of violent and nonviolent strategies and tactics of revolutionary and other movements of social and political change. This represents a shift in interest from conflict management approaches, or a negative peace orientation to conflict resolution, to peacebuilding approaches aimed at a positive peace. This shift started at the end of the Cold War and was encapsulated in the report of then-UN secretary-general Boutros Boutros-Ghali, *An Agenda for Peace*. What has been called *liberal peacebuilding* or *statebuilding*, is based largely on the work that has been carried out in this area.[8] A notable case of bringing theory to practice has involved applying specific techniques for nonviolent revolution to the Arab Spring and other prodemocracy movements. These techniques, initially developed by peace researcher Gene Sharp, have been so widely (and successfully) adopted that Sharp has been called the godfather of these stunning events.

Peace researchers also investigate, catalog, and analyze arms production, trade, disarmament, and their political and economic impact comparing them with those of peace.

After the limited successes of liberal peacebuilding or statebuilding in places as diverse as Cambodia, the Balkans, Timor Leste, Sierra Leone, Liberia, Nepal, Tunisia, Egypt, and Burma/Myanmar, some PCS scholars have advocated an emancipatory form of peacebuilding, based upon an international "Responsibility to Protect" (R2P), human security, local ownership, and popular participation in democracy-building processes.

Conflicts within PCS

Not surprisingly, there are disagreements within PCS. Although many PCS observers and critics smile when they hear about conflicts among those studying conflicts, the reality is that just as doctors sometimes get diseases, PCS scholars and practitioners now and then have disputes. (Thus far, however, they have all been resolved nonviolently!)

For example, as we have noted, peace studies is now often referred to as peace and conflict studies, reflecting the integration of studying peace and understanding the nature of conflict. But some leaders in the field believe that by doing so, peace studies risks becoming more like war studies, because so much attention in peace research is devoted to war research and conflict resolution rather than to building peace and transforming conflicts by peaceful and not bellicose means.[9]

The inclusion of the analysis of (violent) conflict within peace studies has sparked a debate not only with mainstream international relations and its dominant Realpolitik orientation but also in the field of peace studies itself. Most research on large-scale conflicts is focused on armed ones.

Wars have been studied from many different perspectives since the first works in this field were published. This tradition, from pioneers such as Lewis Richardson and Quincy Wright, has dominated most conflict research ever since. The exceptions are few but very important.

The history of peace discourse and movements is intertwined with opposition to war and the advocacy of conflict *reduction* and war cessation, dating back to the ancient Romans and Chinese. Accordingly, for PCS, analysis of the reasons for war and other forms of violent conflict is linked to its aspiration for violence prevention, reduction, and possible elimination.

Also, some PCS researchers and activists claim that if we could simply persuade people to be more tolerant and open-minded, conflicts would no longer be harmful or may even disappear altogether. Others focus on how people behave, maintaining that the problem is humanity's use of violent and aggressive means of trying to resolve conflict. And some conflict transformers argue that what matters is that existing social and economic contradictions be resolved or transcended. All three perspectives have some fundamentalists, but a growing majority of PCS researchers and conflict specialists see the need to include them all.

An old controversy within PCS concerns the relation between inner and outer peace. Should one first strive to achieve peace within one's self or initially try to create greater peace in society at large? Which comes first, healing one's self to gain inner peace, or changing a violent world to gain outer peace? Despite different views, many peace researchers and activists view this as a false dilemma and see the need for both inner and outer peace.

Some peace scholars and educators are absolute pacifists (opposing the use of military force in all circumstances), but many are not, and there is no litmus test to decide the matter. Scholars and peacebuilders are united not by ideology but by a commitment to finding *nonviolent solutions rooted in justice.* Many see themselves as contributing to a body of knowledge and practice that historically has been neglected in favor of the study and practice of war. But peace studies is not antimilitary. Many peace scholars are in conversations with the military, and many in the military are supportive of peace studies.

As in other social and human sciences, there is considerable debate about methodology within PCS. Should the emphasis be on quantitative or qualitative studies in order to get the best understanding of a conflict or a peace movement? At present, the majority of those who are close to the political science and international relations side use more quantitative methodologies, while the social movement and nonviolent side conducts more qualitative studies. Both approaches contribute importantly to the field.

When initiatives are taken to have new PCS programs at universities, there have often been spirited discussions regarding whether the best way to create a PCS degree is to include PCS in already existing fields (like international relations) and institutions (like Divisions of Social Science) or to set up separate PCS centers. Around the world there is now an expansion of both types.

Many academic fields have a theoretical component —PCS included. Good theories are essential for anyone who wants to understand the world. The complexity of conflicts makes it a challenge to have a complete understanding of such a multifaceted political reality. As with most human sciences, PCS finds it difficult to do experiments and tests that can be repeated. This is not to say that empirical observation and facts are without significance for PCS. The more and better case studies available to the researchers, the more accurate should be the theories based on these observations.

Comparing PCS with meteorology and the early history of public health may help clarify some of the challenges faced by the field. The complexity of weather forecasting is probably similar to the complexity of many conflicts. Meteorologists today are pretty good at predicting a five-day

weather forecast. By identifying, measuring, and analyzing the many variables that influence the weather, they are able to forecast the probability of how weather will develop in the near future. However, it is almost impossible to accurately predict the more distant future. Early warning systems for predicting the development of human conflicts face similar or even more difficult challenges. Human beings significantly alter the Earth's climate, especially global warming, but have little influence on day-to-day weather. Natural forces create weather and human behavior creates conflicts.

To understand human behavior is essential, but not sufficient, for students of PCS, because PCS is an ethical and applied social science as well as an analytical one. Like public health professionals who were trying about a century ago simultaneously to forge a disciplinary identity separate from the medical establishment as well as scientifically to analyze and treat epidemics, contemporary peace scholars, researchers, and students attempt not merely to understand the world but to improve it. But before acting, one must have sufficient knowledge and skills. For a medical student doing surgery or for a public health worker combating a mass infection, this is obvious. Many soldiers are normally given at least a year of training prior to being sent to a conflict zone. Similarly, peace and conflict workers should be equipped with a comparable toolbox of conflict resolution skills and nonviolent techniques before they intervene in a conflict.

All tools, theories, and kinds of knowledge can be misused. Medical science is a gift to humanity but was misused by some doctors in Nazi Germany. Many of those who employ torture are using legally, psychologically, and medically trained personnel to help them be more efficient. Many PCS scholars and activists feel a need to include a humanitarian ethic in the teaching of PCS. Johan Galtung has suggested a version of the Hippocratic Oath, which may as useful for students of PCS as the original oath has been for medical students.[10]

Criticisms of PCS and Responses

Critics of the field have sometimes claimed that PCS research is diffuse, wooly, and insufficiently rigorous. Such views have been strongly opposed by scholars who have done interdisciplinary, theoretical, methodological, and empirical research into the causes of violence and dynamics of peace.

Some academics and nonacademic critics have asserted that peace studies approaches are not objective, are derived from mainly leftist and/or inexpert sources, are not practical, support certain forms of violence and terrorism rather than reject them, or have not led to useful policy developments.

PCS defenders respond that other social and human sciences are also normatively oriented and involve subjective choices; sociology, political science, psychology, and even economics, for example, are not neutral, value-free sciences. They typically value, for example, social stability (in the case of sociology), democracy and freedom (political science), sanity (psychology), and capitalism (economics). The sources on which PCS educators and researchers rely are often the same books, journals, and databases as other academic fields and reflect the full range of ideological and political orientations. PCS action proposals are almost entirely nonviolent and antiterrorist in orientation. And while these proposals may or may not be operationalized, they are neither more nor less practical than action plans drawn up outside PCS.

Furthermore, the development of UN and major donor policies (including the European Union, United States, United Kingdom, Japan, Canada, Norway, etc.) in conflict and postconflict

countries have been heavily influenced by PCS. Since roughly the year 2000, a range of key policy documents has been developed by these governments, as have such UN (or related) documents as "Agenda for Peace," "Agenda for Development," "Agenda for Democratization," the "Millennium Development Goals," and the "Responsibility to Protect." PCS research has also been influential in the work of, among others, the United Nations, the United Nations Development Program (UNDP), the UN Peacebuilding Commission, the UN High Commission on Refugees (UNHCR), the World Bank, the European Union, and the Organization for Security and Cooperation in Europe (OSCE).

PCS also influences such international NGOs as International Alert, International Crisis Group, Amnesty International, Human Rights Watch, and many local NGOs. And major databases have been generated by the work of PCS scholars, such as "The Correlates of War" by the Peace Science Society, and, for example, also by PRIO, SIPRI, and the International Center for Nonviolent Conflict.

Finally, peace and conflict studies debates have generally confirmed, not undermined, a broad consensus (Western and beyond) on the importance of human security, human rights, equitable and sustainable economic development, democracy, and the rule of law (though there is a vibrant debate ongoing about the contextual variations and applications of these frameworks).

A necessary but insufficient condition for peace is the absence of war. The main task for peace researchers should be to help in building peace with peaceful means. It seems natural for avowed peace researchers to study the most peaceful cases of conflict resolution and transformation in order to learn how to handle all forms of conflict.

The Future of PCS

The growth of peace studies programs in Canada, the United States, Australia, New Zealand, India, Western Europe, and elsewhere indicates a concern for the future of life on this planet. Faculty members are using their professional skills to educate students about the causes of war while pointing out concrete alternatives to violent behavior. PCS programs vary considerably as to their scope, content, and structure. More conventional programs emphasizing the study of treaty arrangements, alliance systems, deterrence theories, and the study of war between sovereign nation-states have been complemented by newer programs focusing on subnational groups and movements that cut across the boundaries of nation-states.

PCS programs, especially at the graduate level, increasingly require a core curriculum comprising the history of PCS theories and movements; qualitative and quantitative research methodologies; ethics, philosophical, and religious contributions to the field; and case studies and other applications of conflict resolution methods to current conflicts, including peacebuilding and fieldwork.

Many PCS faculty members work with peace and social justice organizations in their communities. Such efforts at peacebuilding may help build a support base for academic peace studies programs. Institutional and increased financial support is needed to give PCS programs both an ongoing identity and a continuing vitality on college and university campuses. Without institutional support, these programs tend to rely too much on the good will of a few committed faculty members, who can easily become burned out as they try to juggle peace studies with their existing academic and personal commitments.

As we move further into the 21st century, there is a danger that many peace studies courses and programs will disappear as faculty and administrators who were attracted to peace studies as a result of the war in Vietnam or the nuclear threat retire. Many graduate programs produce young scholars, committed to peace paradigms, but quite a few of these recent PhDs have trouble finding work in universities that are downsizing and whose faculty and administrators are committed to traditional subject matter. Younger scholars, originally attracted to the idealistic visions of peace education, may become frustrated and disappointed at the academy's inability to incorporate them. Many budding and even established multidisciplinary scholars feel they are peripheral to traditional academic disciplines.

Scholarly debate about the value of multidisciplinary programs also provides a challenge for PCS. Most scholars are accustomed to looking at the world through the lenses of the disciplines in which they were trained. Peace studies, rather than relying on a unidisciplinary perspective, can provide a potentially unifying center for political scientists, educators, sociologists, theologians, psychologists, biological scientists, lawyers, anthropologists, and philosophers seeking to use their academic skills to shed light on how peace and conflict affect humanity and the Earth. Nonetheless, although colleges and universities typically pay lip service to interdisciplinary studies, the reality is that such programs are difficult to establish and to maintain; in this regard, PCS, sadly, is no exception.

Studies of the causes of and remedies for violence are so multifaceted that they should not be limited to one discipline. PCS students are frequently educated in multidimensional and rigorous ways not often rewarded in traditional academic settings. Many peace studies programs are student centered, based upon dialogue (and not lecture) and group and experiential learning, value laden in their commitment to justice, and passionate in their aversion to violence. Such pedagogy has brought forth critics who accuse PCS of being soft or lacking in rigor, as well as champions, especially among the graduates of PCS programs, who frequently laud their educational experiences.

The recent re-emergence of peace, social justice, antiwar, and democracy movements, most notably the Arab Spring and Occupy movements, has created new opportunities for PCS programs. With energized peace and nonviolent democracy movements demanding that attention be paid to problems of violence and injustice, PCS may gain wider acceptance by the West and the rest of the world, as citizens looking for solutions to violent conflict, ecological destruction, and socioeconomic inequity turn to peace researchers and activists for education and support.

Nonetheless, in spite of the tremendous carnage of the 20th century, and the worldwide renaissance of nonviolent movements for social and political change, PCS is still in danger of academic and political marginalization. The mass media's and mainstream politicians' emphasis on responding to violence with greater violence make it hard to build a foundation of support for peace studies among citizenries and decision-makers who see the pursuit of peace by peaceful means as idealistic, unglamorous, impractical, and/or unprofitable.

The pursuit of peace is often labeled idealistic because it is assumed that human beings will always be violent due to human nature, and any talk about building a peaceful global community is seen as dangerous and naive. It is also considered unglamorous in the sense that bloody and dramatic events make headlines; an old saying in journalism is that "If it bleeds, it leads." Peaceful living usually not covered by mainstream mass media seeking to titillate an audience that has been raised on glamorous and unrealistic images of violence promoted on television, in novels, movies, video games, and popular music. News reports obsessively cover the protagonists and antagonists in

violent conflicts but generally ignore the peacemakers who may be present and trying to resolve conflicts nonviolently. And the business of war and preparations for war (aka the Military-Industrial Complex) is a multitrillion dollar global enterprise whose economic and political clout currently dwarfs that of PCS. Accordingly, PCS needs to find ways to dramatize the work of peace heroes and heroines and to signal the successes of nonviolent movements for social, political, and economic equity. It is crucial that the struggle to build a peaceful world be a dynamic part of the public debate, so that the 21st century that will not be as dominated by violence and war as was the 20th century.

PCS faces problems of definition, influence, continuity, legitimacy, status, and funding, but it does so with hundreds of programs, thousands of graduates, and an immense global need for peaceful conflict resolution.

What are some possible futures for PCS? The field may collapse entirely (which at the present time is unlikely), may plateau (which is possible), or may continue to expand. Theories of conflicts based on the knowledge of what most conflicts have in common—from individual conflicts to group and national conflicts to international and global disputes—are increasingly being developed, tested, and refined. With new generations of students graduating from PCS and many moving on to graduate-level programs, recognition of the field as a legitimate, evidence-based discipline should grow. For judicious and effective action to take place, theories need to be combined with in-depth knowledge of actual cases. Informed critical evaluations of past conflicts will help peace activists to act more appropriately to address future ones.

A FINAL NOTE ON PEACE AND CONFLICT STUDIES, EDUCATION, AND RESEARCH

When Gandhi said that the theory and practice of nonviolence was at the same level as electricity in Edison's day, he was probably right. "Peace by peaceful means" has taken the first step on the long road from being a slogan to becoming a reality. With serious research, creative action, and compassion, PCS educators, activists, and students can better address future global challenges. We hope this textbook will be a useful tool for those taking that path.

Like peace itself, peace studies and peace education are very much works in progress. We invite you to discuss and debate the values and methods used by these fields to propagate their vision and mission of creating more peace on earth via education, research, and lifestyle change.

NOTES

1. Letter of Abraham Lincoln, *Collected Works of Abraham Lincoln*, vol. 6. 1991. Rutgers, 410.
2. Anatol Rapoport, paraphrasing R. Duncan Luce and Howard Raiffa. 1991. *The Origins of Violence*. New Brunswick, NJ: Transaction Publishers, xxi.
3. "Peace Studies is an interdisciplinary field encompassing systematic research and teaching on the causes of war and the conditions of peace. It focuses on the causes of . . . violence. While there is disagreement of the exact content of the field, and even on the definition of peace, most would agree that peace studies began to be identified as a separate field of inquiry during the first few decades after World War II . . . the field is multidisciplinary . . . international . . . policy oriented . . . and . . . value explicit." Carolyn M. Stephenson. 1999. "Peace Studies, Overview," in L. Kurtz & J. Turpin, eds., *The Encyclopaedia of Violence, Peace and Conflict*. San Diego: Academic Press, Vol. 2, 809–10.

4. Betty Reardon. 1988. *Comprehensive Peace Education Educating for Global Responsibility.* New York and London: Teachers College Press, Columbia University, ix–x.
5. Gavriel Salomon. 2012. "Four Major Challenges Facing Peace Education in Regions of Intractable Conflict," in Charles P. Webel and Jorgen Johansen, eds., *Peace and Conflict Studies: A Reader.* London & New York: Routledge, 25–35.
6. Conrad G. Brunk. 2012. "Shaping a Vision: The Nature of Peace Studies," in Charles P. Webel and Jorgen Johansen, eds., *Peace and Conflict Studies: A Reader.* London & New York: Routledge, 10–24.
7. The United States Institute of Peace (USIP) was established in 1984 by Congress as a publicly funded national institution chartered to "serve the American people and the federal government through the widest possible range of education and training, basic and applied research opportunities, and peace information services on the means to promote international peace and the resolution of conflicts among the nations and peoples of the world without recourse to violence."
8. See Oliver Richmond's books: *A Post-Liberal Peace.* London: Routledge, 2011; *Liberal Peace Transitions: Between Peacebuilding and Statebuilding,* with Jason Franks. Edinburgh, UK: Edinburgh University Press, 2009; *Peace in International Relations.* London: Routledge, 2008; and *The Transformation of Peace.* New York: Palgrave Macmillan, 2007.
9. See Jorgen Johansen, "Peace Research Needs to Re-Orient," in Hunter, A. ed., *Peace Studies in the Chinese Century.* Aldershot, UK: Ashgate Publishing Ltd., 2006, 31–38; and Peter Wallensteen, *Peace Research: Theory and Practice.* New York: Routledge, 2011.
10. Johan Galtung's proposed "oath" can be found at http://www.pbs.org/wgbh/nova/body/hippocratic-oath-today.html.

QUESTIONS FOR REFLECTION AND DISCUSSION

1. From what you've now read about Peace and Conflict Studies, what would you consider to be the strengths and weaknesses of this field?
2. If you were to design a peace education program for your community/nation, what would you include?
3. Do you think global peace is achievable in your lifetime? Why/why not?
4. What are the most and least fruitful areas of PCS research?
5. How do you envision the future of PCS?

SUGGESTIONS FOR FURTHER READING

Ian M. Harris and Amy L. Schuster, 2006. *Global Directory of Peace Studies and Conflict Resolution Programs.* San Francisco: Peace and Justice Studies Association (PJSA) and the International Peace Research Association Foundation (IPRAF).

Timothy A. McElwee, B. Welling Hall, Joseph Liechty, and Julie Garber, eds. 2009. *Peace, Justice, and Security Studies: A Curriculum Guide.* Boulder and London: Lynne Rienner.

James S. Page. 2008. *Peace Education: Exploring Ethical and Philosophical Foundations.* Charlotte, NC: Information Age Publishing.

Gavriel Salomon and B. Nevo, eds. 2002. *Peace Education: The Concepts, Principles, and Practices around the World.* Mahwah, NJ: Lawrence Erlbaum Associates.

Peter Wallensteen. 2011. *Peace Research: Theory and Practice.* New York: Routledge.

JOURNALS

Journal of Peace Research (JPR): http://jpr.sagepub.com/

Journal of Conflict Resolution: http://jcr.sagepub.com/

Peace and Change: http://www.wiley.com/bw/journal.asp?ref=0149–0508

Peace and Conflict: Journal of Peace Psychology

Peace Review: http://www.tandf.co.uk/journals/titles/10402659.asp

The International Journal of Peace Studies: http://www.gmu.edu/programs/icar/ijps/

WEBSITES

International Peace Research Association (IPRA): http://www.iprafoundation.org/

Peace and Justice Studies Association (PJSA): http://www.peacejusticestudies.org/

Peace Science Society: http://pss.la.psu.edu/

Peace Research Association Oslo (PRIO): http://www.prio.no/

PUGWASH: http://www.pugwash.org/

Stockholm International Peace Research Institute (SIPRI): http://www.sipri.org/

Transcend International: http://www.transcend.org/

CHAPTER 3

THE MEANINGS OF WARS

An American war veteran at the graves of his deceased fellow soldiers.

Source: Istock/ Jonathan Brizendine.

Man's body is so small, yet his capacity for suffering is so immense.

—Rabindranath Tagore

War is a series of catastrophes that results in a victor.

—Georges Clemenceau

Most human activities—buying and selling, sowing and reaping, loving, learning, eating, sleeping, worshipping—take place with a minimum of overt conflict and certainly without anything even remotely like war. Warfare nonetheless has a special importance for human beings, particularly since the invention of nuclear weapons in 1945, which raised the very real possibility that war could extinguish human civilization and, possibly, life on Earth. Peace researcher Quincy Wright began his *A Study of War* by noting that

> to different people war may have very different meanings. To some it is a plague which ought to be eliminated; to some, a mistake which should be avoided; to others, a crime which ought to be punished; to still others, it is an anachronism which no longer serves any purpose. On the other hand, there are some who take a more receptive attitude toward war and regard it as an adventure which may be interesting, an instrument which may be useful, a procedure which may be legitimate and appropriate, or a condition of existence for which one must be prepared.[1]

If wars are to be understood and, ultimately, overcome, we must first agree as to what they are. In this text, we will mainly consider "hot" wars—that is, overt violent conflicts between governments or rival subnational groups hoping to establish governments. In recent times, an official declaration of war has been relatively rare; nonetheless, in many cases, "wars" can still easily be recognized, not only between different nation-states but also as civil wars and so-called wars of liberation. We shall largely exclude feuds, disputes, or cases of banditry, as well as trade wars, propaganda wars, or "cold" wars, except insofar as these have a bearing on hot wars.

Defining Wars

According to *Webster's Third New International Dictionary,* the term *war* ultimately derives from the Old High English noun *werra*, meaning "confusion." This term is perhaps derived from an ancient Greek verb meaning "to go to ruin." The modern English noun *war*, according to *Webster's*, denotes two such "confusing" and/or "ruinous" conditions. The first is a state of hostile and armed conflict between such political units as states, countries, and nations, while the second is a more general state of conflict, opposition, and antagonism between "mental, physical, social, or other forces."[2]

Many people have tried to compile data on wars throughout history, both to help identify the issue and to test various empirical hypotheses about the causes of war. However, researchers have not always agreed which armed struggles deserve to be included in such a compilation. There is little doubt, for example, that World Wars I and II are major examples, but what about the War of the Bavarian Succession (1778–1779)? In this "war," fully armed Prussian and Austrian troops marched while drums rolled, but not a shot was fired. War was declared, but no one died. By contrast, consider the Korean War, in which more than 2 million people (military and civilian) were killed: The United States was a major protagonist, and yet war was never declared. (In fact, neither was peace. This conflict is still officially unresolved, with an ongoing armed truce.) Instead, it was officially known as a United Nations (UN) "police action." Or consider the Vietnam War, in which, once again, no official state of war was ever acknowledged.

Quincy Wright considered a war to have taken place either when it was formally declared or when a certain number of troops were involved; he suggested 50,000 as a baseline. Lewis Richardson, another pioneering peace researcher, sought to define war by the number of deaths incurred. J. D. Singer and M. Small have focused on a minimum of 1,000 combat-related fatalities. Whatever the technicalities involved, most people might agree that war can be described in much the same way as a jurist's observation about pornography: "I may not be able to define it, but I know it when I see it."

Similarly, there can be debate over exactly when a given war began. The United States entered World War II in December 1941, after the Japanese attack on Pearl Harbor, just as the Soviet Union had entered the war 6 months earlier, after it had been attacked by Germany in June. Most historians (and virtually all Europeans), however, consider that World War II began with Hitler's invasion of Poland in 1939, after which France and Great Britain declared war on Germany. On the other hand, some argue that World War II began with Italy's invasion of Ethiopia (1935) or even earlier, with Japan's initial incursion into China (1931). And some historians have even maintained that in fact World War II began when World War I ended, with the Treaty of Versailles (1919), which created great resentment among the German people, leading ultimately to a resumption of armed hostilities 20 years later. The long Cold War (1945–1991) between the United States and the Soviet Union was never declared, but when the Soviet Union collapsed, it was widely considered to have been "won" by the United States.

Psychologically, the essence of war is found in the intensely hostile attitudes among two or more contending groups. Economically, war often involves the forced diversion of major resources from civilian to military pursuits. Sociologically, it frequently results in a rigid structuring of society, with prominence given to military functions. Perhaps the most famous definition of war, however, speaks to its political significance. Karl von Clausewitz (1780–1831), a Prussian army officer best known for the treatise *On War,* defined it as "an act of violence intended to compel our opponents to fulfill our will." He further emphasized that war was "the continuation of politics by other means," by which he meant war should not simply reflect senseless fury; rather, it should be an orchestrated action, with a particular political goal in mind. Very often, that political goal is the preservation of the power of those statesmen and other elites who orchestrate and hope to benefit from a particular war. It is the victors among warring elites who, in its aftermath, will normally declare the war to have been "good" and/or "just." The losers and victims of wars generally have a different view.

The Frequency and Intensity of Wars

By some measures, wars have been relatively infrequent. Based on the number of nation-states existing since 1815, there have been between 16,000 and 20,000 nation-years, and during this time, war has occupied about 4% of the possible total. The 20th century was a very warlike one, with, by one count, about 87 million war deaths (60/40 civilian to military fatalities). But more than 85% of these occurred during the two World Wars, and since 1945, according to the scholar Joshua Goldstein, "war has decreased ... and stands at perhaps at an all-time low" (due, according to Goldstein, principally to the "UN system in general and peacekeeping in particular").[3] And modern warfare, even with its enormous devastation, was directly responsible for fewer than about 2% of all deaths occurring during the past century. Note, however, that there

have also been many indirect casualties of war, since wars and the preparations for wars divert resources that might be directed against other causes of death, such as disease and starvation.

In Iraq, for example, between 1991, when the first Gulf War began, and 2012, the number of civilian casualties occurring as a result of these factors—initiated during the devastating Gulf War, aggravated by sanctions imposed on Iraq by the United Nations under prodding by the United States, and compounded since the second coalition invasion in 2003—has far exceeded the number of military and civilian deaths that occurred during the wars themselves. And in Sudan, particularly in Darfur, millions of displaced and prematurely deceased civilians have been casualties of a multisided civil war. The extraordinary horror and the impact of wars derive from their extraordinary violence and the scale and intensity of needless human suffering that results.

Scholars estimate that between 1500 and 1942 there was an average of nearly one formally declared war per year. This does not count armed revolutions, of which between 1900 and 1965 there were approximately 350, an average of 5 or more per year. According to Lewis Richardson, there were at least 59 million deaths from human violence between 1820 and 1946, of which fewer than 10 million were attributable to individual and small-group violence; the remainder occurred as a result of wars.

Unfortunately, wars between nations in the contemporary world are ongoing in many places and imminent in many others. Since 1955, the number of armed conflicts has ranged from about 20 (in the late 1950s) to nearly 60 (in the late 1980s). During the 1990s and until 2002, the overall number of wars declined somewhat but remained between 30 and 40 per year. In 2010, according to the Uppsala Conflict Data Program (UCDP), the global total of major and minor inter- and intra-state armed conflicts was 30, which is a substantial reduction from the 36 active conflicts recorded in 2009 and the lowest number of active conflicts since 2003. Between 1946 and 2010 a total of 246 armed conflicts have been active according to UCDP criteria. Out of the current 30 or so armed conflicts, four have reached the intensity level of "war," meaning that, by the UCDP's criterion, more than 1,000 battle-related deaths were recorded in the conflict throughout the year. These armed conflicts were the ones in Afghanistan, Iraq, Pakistan, and Somalia.[4]

Indirect Killing

In addition to the direct casualties, war kills indirectly, particularly by disease among armed forces personnel as well as by starvation as a result of disrupted food production and distribution services. For example, more than 8 million soldiers and 1 million civilians died during World War I, with approximately 18 million additional people dying during the influenza epidemic of 1918. Historically, in fact, more soldiers have died of diseases and of exposure than from enemy fire: More than eight times as many French soldiers died from cholera during the Crimean War (1853–1856) than from battle. Similarly, of Napoleon's forces that invaded Russia in 1812, many more died from the cold and pneumonia than from Russian military resistance. During the Thirty Years' War (1618–1648), the armies of Gustavus Adolphus and Albrecht von Wallenstein, facing each other outside Nuremberg, lost 18,000 men to typhus and scurvy and then separated without a shot having been fired.

In modern times, deaths due to disease have become less prominent during times of war, as a result of improved medical technology. At the same time, advances in military technology have made wars themselves more deadly, especially for nearby civilians: Military deaths were roughly

the same in World Wars I and II (about 17 million in each war), but civilian deaths in World War II (approximately 35 million) were about seven times greater than in World War I. In the past, civilians often suffered horribly during wars, notably during the Thirty Years' War, when an estimated third of the German population was killed, and during the sacking of fallen cities, such as Carthage at the end of its long Punic Wars with Rome. But through most of human history, war casualties were overwhelmingly concentrated among military forces. With advances in military technology, not only have casualties generally increased but the ratio of civilian to military deaths also rose to unprecedented levels during the 20th century; this trend appears to be continuing in the 21st century. In the event of nuclear or biochemical war, whether deliberate or accidental, the casualties could well include essentially all the civilian population on both sides—and possibly billions of bystanders in other countries as well.

The Waste of War

The sheer wastefulness of war has been appalling, even with conventional (non-nuclear) weapons. During the Battle of the Somme (1916) in World War I, for example, the British sought to pierce the German lines, gaining a mere 120 square miles at a cost of 420,000 men while the Germans lost 445,000. At the Battle of Ypres (1917), the British advanced 45 square miles, in the process losing 370,000 men. During World War I alone, Europe lost virtually an entire generation of young men. Here is F. Scott Fitzgerald's description of the Somme battlefield:

> See that little stream—we could walk to it in two minutes. It took the British a month to walk to it—a whole empire walking very slowly, dying in front and pushing forward behind. And another empire walked very slowly backward, a few inches a day, leaving the dead like a million bloody rugs.[5]

Numbers can be numbing. For example, of the 2,900,000 men and women who served in the U.S. armed forces during the Vietnam War (average age 19), 300,000 were wounded and 55,000 were killed. Yet these figures convey very little of the war's significance or of its horror, both for those who served and for the country at large—especially among the people of Vietnam. They also ignore the war's devastating socioeconomic consequences for Vietnam, Laos, and Cambodia, as well as for the United States, where it had profound social effects, including widespread alienation of millions of young people and massive antiwar demonstrations around the country. There were also political consequences, not all of them negative, including a hesitancy to engage U.S. servicemen and servicewomen in foreign conflicts (the "Vietnam syndrome"). In Vietnam itself, the economy and natural environment were devastated, and several million Vietnamese were killed. Decades after it has ended, the Iraq and Afghanistan wars may similarly have devastating consequences not only for the millions of Iraqis and Afghans displaced, killed, or maimed by the conflict but also for coalition soldiers and civilians who return home only to be afflicted by post-traumatic stress disorder and other indicators of an "Iraq/Afghan syndrome."

It is deceptively easy to present a sanitized summary, often in statistical form, of incalculable carnage and misery, thereby synopsizing ineffable horrors in a few well-chosen words. In this book, we plead guilty to this form of euphemism and linguistic sanitation, offering only the excuse that the demands of space (and cost) do not permit the reproduction of photos that could reveal the atrocity of warfare infinitely better than a written text.

Historical Trends in War

The following list of (admittedly bloodless) facts and figures should give some idea of how war has evolved over the past half-millennium. Consider, for example, these trends:

1. *An increase in the human, environmental, and economic costs of war; a decrease in the casualty rate among combatants; and an increase in the number of civilian casualties.* In the Middle Ages, for example, the defeated side, typically the one that broke and ran, would be cut down by the victors, often losing as many as 50% of its fighting men. By modern standards, however, the actual numbers in question were small: thousands or, at most, tens of thousands involved in combat, as opposed to modern armies numbering in the hundreds of thousands. Up to the 16th century, about 25% of combatants died; by the 17th century, this proportion was about 20%, dwindling to 15% in the 18th century, 10% in the 19th century, and 6% in the 20th century (perhaps fewer in the first decade of the 21st century). This is partly because with modern technology, a larger proportion of "combatants" are engaged in support and supply rather than actual fighting. In addition, the proportion of combat injuries leading to death had decreased because of better medical care for the wounded. And disease, once a major scourge during wartime, now causes fewer combat fatalities (although the indirect effects of combat may kill many civilians, as in Iraq since 1991). On the other hand, the proportion of the civilian population in the armed services has increased, and since the number and duration of battles has increased as well, the percentage of the national population dying in war has also gone up. In France, for example, approximately 11 out of every 1,000 deaths during the 17th century were due to military service; in the 18th century, this number had increased to 27; by the 19th century, 30; and in the 20th century, 63. The 20th century also witnessed the initiation of large-scale attacks on civilian shipping, especially with the use of submarines. Attacks on noncombatants became particularly pronounced with the use of air bombardment—of Ethiopians by Italy; of Spanish Loyalists by German and Italian "volunteers" during the Spanish Civil War; of Chinese by Japan; of Poles, Dutch, and English by Germany; of Finns by the USSR; of Japanese and Germans by the United States and Britain during World War II; and of Iraq, Afghanistan, Serbia, and Libya by the United States and its allies during the 1990s and first years of the 21st century. The ratio of civilian to military casualties at Hamburg, Dresden, Hiroshima, and Nagasaki was on the order of thousands to one.

2. *An increase in the speed at which wars spread to additional belligerents, in the number of belligerents involved in a given war, and in the area covered.* In ancient times, battles typically took place in, and were named for, cities or mountain passes: the Battles of Thermopylae, Waterloo, Gettysburg. During the 15th and 16th centuries, each war had, on average, just slightly more than two collective participants. By the 20th century, the number of states involved had jumped to five. In World War II, many battles had expanded yet more, to whole countries, even continents or oceans: the Battle of Britain, the Battle of the Atlantic; on land, the tides of battle swept across all of Europe, as well as across much of northern Africa, East Asia, and the Pacific Ocean. Following this tradition, World War III, like the current "War on Terror(ism)," would almost certainly be global.

3. *Since World War II, an increase in the frequency of so-called low-intensity conflicts (LICs), in which the United States and the former Soviet Union, especially, became indirectly involved in*

Third World conflicts, revolutions, and counterrevolutions. Both the United States and to a lesser degree the former Soviet Union tended to consider that their "national interests" included the outcome of struggles taking place virtually anywhere on the globe. Often, they interpreted strictly indigenous conflicts, especially those reflecting revolutionary nationalism, as evidence of meddling by the other side and regarded the nations involved, therefore, as pawns in the East-West conflict. As war has become potentially more destructive and more likely to engulf nuclear powers, military strategy has focused increasingly on fighting comparatively limited wars—for example, U.S. support for the contras in Nicaragua or the mujahideen in Afghanistan—that are perceived as less threatening to the major powers but that nonetheless allowed them to carry on their rivalry on someone else's soil. The U.S. experience in the Vietnam War (and quite possibly, the Russian experiences in Afghanistan and Chechnya) also sensitized government leaders to the difficulties of conducting wars that are expensive, in terms of money as well as lives, and that do not enjoy strong public support. As a result, one might expect increased interest in the 21st century by the great powers in orchestrating LICs that are comparatively low profile and hence less controversial and domestically disruptive.

At the same time, the phrase low-intensity conflict is a euphemism, dangerously misleading as to the death and misery it may produce. Similar euphemisms would include the "police action" in Korea (1950–1953) and Vietnam (1962–1974), "peacekeeping" in the Dominican Republic (1965), and the "rescue operation" in Grenada (1983). To many defense strategists in the United States, who by the late 1980s were especially committed to the concept, an LIC is really a war, typically in the Third World, in which the number of U.S. combatants and casualties is kept low; for those directly affected, by contrast, the damage can be staggering. For example, consider the death toll in Nicaragua during the U.S.-sponsored contra war of the 1980s: more than 29,000. To gain a better perspective on this, imagine that Nicaragua's population (3.5 million) were that of the United States (about 285 million, at the time). A comparable cost to the United States would have been more than 2 million lives. Proportionately, the Nicaraguan death toll in this "low-intensity war" exceeded all U.S. losses in all the wars of its history, from the Revolutionary War to Iraq and Afghanistan.

Even "small" conventional wars can be devastating: For example, the Six-Day War between Israel and its Arab opponents in 1967 resulted in 21,000 battle-related deaths, far greater than the rate of killing per day that occurred during the Korean War. And between 1980 and 1988, the war between Iran and Iraq, generally considered a minor conflagration, may have claimed more than a million lives. Between 1991 and 2000, wars and "ethnic cleansing" in Rwanda, Burundi, Iraq, East Timor, and some parts of the former Soviet Union and Yugoslavia claimed vast numbers of civilian casualties. Millions of Iraqis and Afghans have been displaced, wounded, or killed since 1991. The civil war in Sudan, between an Islamic government in the northern part of that country and Christian and animist secessionists in the south, has claimed perhaps 2 million lives, both from direct fighting and from subsequent disease and mass starvation.

4. *The continuing increase in "asymmetrical" conflicts between nations or empires on the one hand and guerrillas, "freedom fighters," and/or "terrorists" on the other hand.* During the late 18th and early 19th centuries, the Napoleonic era of revolutionary wars initiated the phenomenon of "anti-imperialist," guerrilla warfare. Resistance and "terrorist" fighters had existed since antiquity; best known, perhaps, were the Zealots, dagger-wielding Jewish opponents of Roman rule in ancient Palestine. But the concept of guerrilla warfare as an organized if rather informal uprising on a national scale originated with the Spanish resistance to Napoleon. In fact, during the 5 years

of French occupation, Spanish guerrillas (aided by English forces in Portugal) accounted for as many French casualties as Napoleon's forces suffered during their ill-fated Russian campaign.

5. *An increase in religiously inspired armed conflicts since the Israeli occupation of Arab lands in 1967.* The phenomenon of resistance to imperial dominion by dedicated fighters in small groups has taken on an increasingly religious cast since the Euro-American and former Soviet occupation of much of the Middle East. The Soviet occupation of Afghanistan during the 1980s and the American-led occupations of Afghanistan and Iraq (and emplacement of military bases throughout the Middle East and Islamic world more generally) have been met by fierce resistance on the part of "freedom fighters" and "God's warriors" who believe that "Christian-Jewish crusaders," and their "infidel" Muslim backers, have desecrated the Islamic "holy land." *Jihadis* claim that they are defending their faith from an American-led attack against Islam itself. On the other hand, some conservative Western commentators have called militant Islam "Islamo-Fascism." While militant Islamists believe their "holy war" (*jihad*) to be a just struggle against "imperialists and infidels," many Westerners consider the global "War on Terror(ism)" to be a "just war" against "barbarism." "God's warriors" come in all denominations, and the escalation of violence by all of "God's warriors" has had infernal consequences for countless victims caught in the "divinely inspired" crossfire.

6. Finally, although the future—by definition—cannot be predicted with certainty, many experts anticipate extension of certain recent trends, such as the following: use of child soldiers, especially in impoverished regions (especially sub-Saharan Africa) that are better endowed with people than with financial resources; and increased reliance on robotically controlled munitions and private, mercenary armed forces, especially by wealthier countries.

Modern Weaponry

We can identify four major eras of weaponry: (1) the earliest period (encompassing the entire preindustrial period), based primarily on muscle power; (2) an intermediate period (from approximately the Renaissance until the first half of the 20th century in the West and still the case in most of the rest of the world), powered by chemicals, especially gunpowder, as well as steam and internal combustion engines; (3) the second half of the 20th century, dominated by the threat of nuclear weapons and other weapons of potential mass destruction (especially biochemical weapons), and (4) the early 21st century, which, while preserving the dubious legacy of the late 20th century, may also be increasingly characterized by military adaptations of such cutting-edge technologies as robotics, drones (devices of unmanned "precision" killing at a distance), nanotechnology, space-based weaponry, and cyberwarfare. This "advance" from stone ax to hydrogen bomb and satellite gives particular urgency to peace and impels us to understand the instruments of war so as to appreciate the need for developing alternative, nonweapon "instruments" of peace.

Before 1939, it was assumed by many strategic thinkers that World War II would largely be a replay of the static trench warfare of World War I. Instead, the German Army used quick-moving armored forces closely coordinated with air strikes, in a new style of rapidly penetrating battle known as the *Blitzkrieg*, or "lightning war," which benefited the offense. In contrast with trench warfare, there were relatively few casualties in the Nazi conquest of Poland, the Low Countries (Holland, Belgium, and Luxembourg), and even France. The major loss of life in the European

theater during World War II occurred during prolonged fighting on the eastern front, where the Soviet Union suffered more than 20 million casualties and Germany sustained nearly 90% of its wartime losses.

Toxic gas was used extensively by both sides during World War I. Japan employed chemical weapons against unprepared Chinese forces during the 1930s; Italy did the same in Ethiopia. Subsequently, advances in chemical and biological warfare (CBW) have raised new fears about the potentially devastating consequences of future wars, along with their possible use by terrorists (as in the 1995 attack on the Tokyo subway system by *Aum Shinrikyo*, a religious cult). Iraqi forces apparently used chemical weapons (mustard gases) in their war with Iran during the 1980s, as well as against Kurdish rebels inside Iraq itself, in both cases violating international law. And there may well be biochemical attacks on civilians in the United States and elsewhere during the ongoing "War on Terror(ism)" being conducted around the world.

There have been many innovations in war-fighting technology within the past hundred years: breech-loading artillery, landmines, grenades, torpedoes, machine guns, tanks, chemical warfare, powered ships (first steam, later diesel), iron-hulled ships, submarines, and aircraft, including fighters and bombers. Also, advances in rocketry have permitted swift, stealthy, and relatively accurate attacks on distant targets. The Battle of Leyte Gulf, during World War II, for example, was the greatest naval engagement of all time: In 5 days, Japan lost 4 aircraft carriers, 3 battleships, 6 heavy cruisers, and 11 destroyers (and, of course, many thousands of sailors), all destroyed by torpedoes launched by submarines or by bombs dropped by airplanes; there were no direct encounters between the surface vessels of the two sides.

Other developments in conventional weaponry involve improved armor plating for tanks and ships, as well as highly accurate *precision-guided munitions*—relatively inexpensive, highly accurate rocket-propelled devices that can be fired by small groups of soldiers and that endanger costly targets, such as tanks or aircraft. Many military analysts believe that the future will see further development of highly lethal munitions and robots, used on an increasingly automated, even electronic, battlefield, possibly conducted in space as well. These trends have culminated in what is probably the most important technological development in war making, the invention and high-speed delivery of nuclear weapons.

Cutting-Edge Military Technologies

In their never-ending search for the "winning weapons," military strategists and planners have been busy developing new weapons systems and the means to deliver them. They have increasingly appropriated scientific, technological, and engineering innovations that have dual-use applications, that is, those for civilian and for military purposes. During the early 21st century, cutting-edge and futuristic military technologies include nanotechnological devices; drones, robots and other "terminator-like" weapons; chemical and biological warfare agents; cyberwarfare technologies; and satellites and other space-based weapons systems.

Nanotechnological Devices

Nanotechnology (sometimes shortened to "nanotech," or NT) is the manipulation of matter, or the engineering of functional systems, on an atomic and molecular scale. Generally, NT deals with developing materials, devices, or other structures with at least one dimension sized from 1

to 100 nanometers (one nanometer, or nm, is one billionth, or 10^{-9}, of a meter). NT has a wide range of applications. Molecular manufacturing, also known as molecular nanotechnology, is a field of NT that involves the manufacturing of products that are built one atom or molecule at a time.

NT has military uses as well, especially for technologically advanced machinery and for soldiers. NT can be used to build materials and parts for machines and weapons; for soldiers, it can be used to build materials to enhance clothing, and there is the possibility, according to the Defense Advanced Research Projects Agency (DARPA), of creating sensor microchips that can be implanted in soldiers to monitor their health and vital signs during combat. According to DARPA, this technology could revolutionize war, as the chips would allow the U.S. military and its medical personnel to receive instant updates about any potential medical problems in soldiers, thus expediting medical evacuations. DARPA may also develop chips allowing for treatment of medical conditions from within the body. Whether these chips prove successful in relaying health information and possibly treating medical conditions remains to be seen; however, it is important to consider the future implications of such devices. Since these chips are meant for military uses, they could be developed to do harm to the body from the inside, potentially as a means of torture. There is also the possibility that NT could be developed for surveillance purposes (via nanoscale microphones or cameras) to be used for such covert military operations as spying.

Despite the possible benefits of molecular nanotechnology, such as the potential to improve medical procedures and treatments and to develop alternative energy sources, there are risks associated with its military applications. These risks include potential dangers to soldiers' health; the threat of technologically "improved nuclear" warfare; social and economic disruption, and the threat of criminal or terrorist use of NT.

Nanoparticles used on weapons and machinery (i.e., drones, tanks, planes, etc.) to make surfaces harder, smoother, and more stealthy for covert military operations could erode and enter the body through the respiratory system, possibly leading to lung infections or cancers that could spread to the rest of the body and cause a multitude of health problems. NT that is used to improve human performance can also pose human health risks, especially if injected into the bloodstream. For example, artificial blood cells called respirocytes can greatly enhance a soldier's performance on the battlefield, but such tampering of delicately balanced biological systems within the body could cause overheating of the body, dehydration, and even breakdown of tissues and organs if the immune system perceives the respirocytes as a threat. Another example of NT that can be used to improve human performance is the introduction of nanoscale receptor enhancers that are designed to increase alertness and reduce reaction times. With repeated use, however, these enhancers could cause addiction and, with chronic use, could lead to Chronic Fatigue Syndrome, which in turn often leads to weakness, neural damage, and even to death. (The drug Provigil is already used by military pilots on long-range missions and has been employed by civilians seeking to keep themselves productive despite sleep deprivation.)

Perhaps the most terrifying risk of militarized NT lies in the possible increased likelihood of nuclear war due to the advent of sophisticated molecular nanotechnology. Nuclear war has the potential to be facilitated by nanotechnology devices (i.e., atomic firing, molecular-based lasers, etc.), and nanotechnology weapons can be developed to destroy specific targets with considerable ease and speed once NT itself has progressed to develop inexpensively manufactured military products. Because molecular nanotechnology focuses on the nanoscale, and

because the advent of nuclear weapons has added to our knowledge of the atomic scale, the sophistication of nuclear warfare that incorporates elements of NT weapons has the potential to be not only devastating on the battlefield but also to become the driving force of a new and unstable arms race. Nanotechnology weapons could themselves become part of this arms race, because NT is easier to use, easier to transport, easier to manufacture, and easier to develop into weaponry than most conventional and nuclear technologies. Unless restrictions are put on the applications of NT to nuclear weapons, the number of nations whose military forces are based on nanotechnology weapons could be much greater than the number of nations that have nuclear arsenals, thus increasing the likelihood that a regional conflict could arise as a result of an arms race. As nations are increasingly encouraged to get involved in nanotechnology research due to its implications for military weaponry, superpowers could well lose their current ability to "police" the international arena, thus encouraging the breakup of existing relationships and alliances between nations and contributing to additional global instability.[6]

Drones, Robots, and "Terminator"-Like Weapons

A drone, otherwise known as an unmanned aerial vehicle (UAV), is an aircraft without a human pilot onboard. Its flight is either controlled autonomously by computers in the vehicle or under the remote control of a navigator on the ground or in another vehicle. Although they are also used in a small but growing number of civil applications, such as firefighting or non-military security work (i.e., the surveillance of pipelines), drones are most noted for their military applications and are often preferred for missions that are too dull, dirty, or dangerous for manned aircraft.

Between September 11, 2001 and early 2012, the Pentagon increased the drone inventory from a handful to 7,500, comprising approximately one-third of all U.S. military aircraft. As advances in Artificial Intelligence (AI) continue to be made, drones and other robotic systems designed for military use (e.g., ground-based robots assigned with a wide variety of tasks, such as evacuating wounded soldiers) may be able to make combat decisions without human input.[7] In essence, the usefulness of these robots lies in the fact that they can carry out specific kinds of jobs that human forces would not be able to perform: dull jobs that go beyond the limitations of human endurance or involve extended patrolling; dirty jobs that involve work with hazardous materials or environments (e.g., underwater or even in space); and dangerous jobs that involve direct interaction with enemies or other hostiles. However, another kind of job could feasibly be assigned to these robots, namely the ability to act with dispassion; in other words, robots do not have the emotional capacity to prevent them from committing war crimes, nor be negatively affected by adrenaline, hunger, sleep deprivation, or anything else that has the potential to cloud human judgment. This could have the potential to remove human forces completely from the battlefield and therefore minimize causalities—something that is considered to be the top priority in combat situations. It could also generate serious problems.

This technology still has a long way to go. Taking its usefulness for granted could prove a horrible mistake, impacting relations with other countries. For example, in May 2012, a U.S. military aerial drone attacked a convoy of alleged al-Qaeda militants in Yemen, killing 247 of the alleged militants, 55 military personnel, 18 local militiamen, and 18 civilians. In other cases, drone attacks on supposed Taliban operatives in Afghanistan as well as in Pakistan have instead targeted

wedding parties and other purely civilian events, resulting in the deaths of dozens of innocent people and generating immense anger in the host countries. In such cases, official U.S. government policy is to pay reparations to surviving family members, which is consistent with local Islamic tradition in such regions. However, it is appropriate to ask whether the perceived benefit of remotely terminating alleged terrorists exceeds the cost of civilian lives, in addition to the added cost of antagonizing people whose hearts and minds are supposedly being courted.

This is one of many ethical dilemmas arising from the military uses of such technologies. Another dilemma arises when considering accountability: who is accountable for, say, the killing of civilians in a strike? The commander who can override its orders? The politician(s) who authorized its use? The manufacturer of the robot if its equipment is proven to be faulty? (As of late 2012, authorization of drone attacks in Yemen and Afghanistan in particular has been handled by the Central Intelligence Agency, not the U.S. military command.) In addition: 1) allowing machines to make life-and-death decisions during combat requires extensive legal and ethical constraints; 2) such constraints and policies must be put in place in order to guide future technological developments; and, 3) using unmanned military technology removes major psychological barriers to wars (e.g., the cost of human lives, distances, etc.), making them easier to start.

Space Technologies

No longer a part of science fiction, space technologies are becoming more useful for military purposes, including tiny disposable satellites, material breakthroughs to maximize the efficiency of solar cells for satellites, and even small nuclear reactors for satellite systems and other spacecraft. An additional technology is the unmanned OTV (Orbital Test Vehicle), the U.S. Air Force's mysterious robotic X-37B space plane, a secret reusable spacecraft that looks like a miniature version of a space shuttle.

DARPA's "SeeMe" program includes the use of tiny satellites that could swarm battlefields, allowing soldiers to have much wider and constant surveillance coverage from space and therefore be instantly updated during combat situations. It could also be very cost effective, much less expensive than the flying robots that comprise the U.S. military's drone fleet. According to DARPA, two dozen of these tiny satellites could be launched from missiles fired via aircraft into space, where they would maintain their orbit for a minimum of 45 days, sending updated images of the battlefield taken from space to soldiers on the ground via handheld devices within an hour and a half of receiving image requests. Although this technology is still in the works, its implications are far reaching. From an ethical standpoint, if successful, it would introduce to other nations the necessity of developing technology to shoot down the satellites in order to delay information relay to the battlefield. This could cause political conflict; also, any remaining debris in space could prove detrimental to other spacecraft as well as to soldiers on the ground if it falls through the Earth's atmosphere. In addition, if the technology gets in the wrong hands (i.e., that of terrorists or militant groups), it could be used for spying and theft of information.

Furthermore, the U.S. Air Force has plans to increase the amount of energy available for use by its satellite systems for military-based missions. As Mark Maybury, chief scientist for the U.S. Air Force notes, "Space is the 'ultimate high ground,' providing access to every part of the globe. . . . Space also has the unique characteristic that once space assets reach space, they require comparatively small amounts of energy to perform their mission, much of which is renewable."[8] Additional technologies that can be utilized to provide energy for even ground-based facilities include small

modular nuclear reactors and space tethers, which—when developed—could harvest energy from the Earth's geomagnetic field. Although space tethers are in the far distant future, small modular nuclear reactors are not. In fact, nuclear energy has already been demonstrated for several satellite systems and has been shown to provide a consistent source of power at a much higher level than current technologies. As the size of these nuclear reactors decreases, their utility onboard satellite systems and other spacecraft increases. However, such a technology can easily have catastrophic consequences if not properly maintained or if it ends up in the wrong hands. For instance, it is possible that such technology could be used to build small nuclear weapons or more powerful conventional weapons. Attached to missiles, rockets, or even hand grenades, if small enough, such technology could prove extremely dangerous both physically and politically.

Biological and Chemical Weapons

Biological and chemical agents have been used during warfare throughout history. Today, such weapons are sometimes known as "the poor man's nuclear weapon" because of the ease of developing them compared with nuclear weapons.

Biological agents include pathogens or other microscopic organisms capable of causing disease, such as bacteria (e.g., anthrax), viruses (e.g., smallpox), fungi, and toxins. Biological agents differ from chemical agents in that their release and their effects are not immediately noticeable, simply because infection of the human body requires a certain amount of time to become an illness.[9]

Chemical agents include: 1. nerve agents (e.g., GB, or sarin), 2) blister agents (e.g., HD, or sulfur mustard), and 3) choking agents (e.g., CG, or phosgene). Nerve agents are particularly toxic, as with VX, or methylphosphonothioic acid, which causes death after 15 minutes of absorption, and GB, which can cause death in 1 to 2 minutes if enough is absorbed. Nerve agents are particularly toxic because of their ability to inhibit the enzyme acetylcholineresterase, which is responsible for the hydrolyzation of acetylcholine wherever it is released. Nerve agents irreversibly inhibit acetylcholinesterase, which in turn causes the neurotransmitter acetylcholine to accumulate in the body; victims of nerve agents ultimately die of suffocation because they are unable to control their breathing. Blister agents do not immediately kill like nerve agents; they are meant to limit fighting ability rather than to cause casualties, although exposure to such agents can be fatal. HD (sulfur mustard) is particularly toxic, due to its stability; it attacks not only the skin but also the eyes and the respiratory tract. Choking agents utilize chemical agents that attack lung tissue. Phosgene is the most dangerous of these agents, as it causes massive pulmonary edema and can result in death within 24 to 48 hours of exposure.

Clearly, the use of these weapons against human beings is a significant ethical issue, although it is worth considering why such things should be considered less tolerable than traditional explosive or penetrating weaponry based on gunpowder. Concerning biological agents: 1) they can spread very easily and rapidly if not contained, resulting in secondary infections far from the initial site of release, and 2) advances in biotechnology have made it easier to develop possibly dangerous agents with fewer resources, increasing worries about bioterrorism. The Convention on the Prohibition of the Development, Production and Stockpiling of Bacteriological (Biological) and Toxin Weapons and on their Destruction (usually referred to as the Biological Weapons Convention, or the BWC, or Biological and Toxin Weapons Convention, or BTWC) was the first multilateral disarmament treaty banning the production of an entire category of weapons. It was

the result of prolonged efforts by the international community to establish a new instrument that would supplement the 1925 Geneva Protocol, which prohibited use but not possession or development of chemical and biological weapons. The BWC became effective in 1975. It currently commits the 165 states (but not Israel, Kazakhstan, and about 20 other nations) that are party to it to prohibit the development, production, and stockpiling of biological and toxin weapons. As of early 2012, an additional 12 states signed the BWC but have yet to ratify it. However, the absence of any formal verification regime to monitor compliance has limited the effectiveness of the Convention.

The Chemical Weapons Convention (CWC) is a similar arms control agreement outlawing the production, stockpiling, and use of chemical weapons. As of August 2010, 188 states are party to the CWC. By the end of 2011, about 71% of the world's (declared) stockpile of chemical weapons had been destroyed. The convention also has provisions for systematic evaluation of chemical and military production facilities, as well as for investigating allegations of use and production of chemical weapons.

Chemical agents, like NT and drones, pose their own array of grave ethical, legal, and political concerns. Would their use be the most efficient way to eradicate such alleged enemies as groups of terrorists? What about civilians caught in the crossfire? Is it ethically acceptable to wipe out villages with toxic nerve agents, for instance, in order to kill terrorist groups that have the potential to kill many more people? Also, what about countries that possess chemical weapons but are not under any legal imperatives to surrender them or to allow for their inspection and control? Syria, for example, is one of eight countries (including Israel and North Korea) that have not signed the CWC; Syria also supposedly has the world's largest remaining stockpile of undeclared chemical weapons, namely mustard gas and the VX nerve agent.

Cyberwarfare

Cyberwarfare refers to politically and/or criminally motivated computer hacking. It is a form of information warfare sometimes seen as analogous to conventional warfare. Richard A. Clarke, former National Coordinator for Security and Counterterrorism and Special Adviser to the President for Cyber Security, defines "cyberwarfare" as "actions by a nation-state to penetrate another nation's computers or networks for the purposes of causing damage or disruption."[10] *The Economist* describes cyberspace as "the fifth domain of warfare, "and William J. Lynn, U.S. Deputy Secretary of Defense states that "as a doctrinal matter, the Pentagon has formally recognized cyberspace as a new domain in warfare . . . which has become just as critical to military operations as land, sea, air, and space."[11]

In 2009, President Barack Obama declared America's digital infrastructure to be a "strategic national asset," and in May 2010, the Pentagon set up its new U.S. Cyber Command (USCYBERCOM) to defend American military networks and attack other countries' systems. The European Union has set up European Network and Information Security Agency (ENISA). The United Kingdom has also set up a cyber security and "operations centre." The USCYBERCOM is intended to protect only military assets, whereas civilian government and corporate infrastructures are primarily the responsibility of the Department of Homeland Security and private companies, respectively.

Numerous key sectors of national economies are currently at risk, including cyberthreats to public and private facilities, banking and finance, transportation, manufacturing, medicine,

education, and government, all of which are dependent on computers for daily operations. In 2009, President Obama stated that "cyber intruders have probed our electrical grids." *The Economist* wrote that China has plans for "winning informationised wars by the mid-21st century." It claims that other countries are likewise organizing for cyberwar, among them Russia, Israel, and North Korea. Iran may have the world's second-largest cyberarmy; Iran has also been the subject of more cyberattacks than has any other country, reflecting efforts by Israel and the United States to interrupt Iranian nuclear programs.

Cyberwarfare is often depicted in movies as intense yet easy; with just one click of the mouse and a few keystrokes, the "good guys" (or the "bad guys") successfully hack into a multimillion dollar security system or insert a computer virus undetected. In reality, however, cyberattacks are much more complicated, time-consuming, and expensive. Also, cyberweapons are quite flexible and can be used for a variety of purposes, including propaganda, espionage, and even impersonation, in addition to destroying physical infrastructures (e.g., factories, powerplants, or nuclear enrichment centrifuges, in the case of Iran).

There is also the prospect of cyberterrorism. Many important infrastructures and services rely on the Internet to function, and so can in theory be controlled or manipulated from the Internet. Potentially, the most serious form of cyberwarfare is a targeted attack, designed to breach defenses and disable computerized functions of an individual, company, or organization. Highly sophisticated attacks, such as one against Google in 2009, succeed, despite top security efforts and procedures. As long as people—whether an individual, a small business, or even a large pharmaceutical company or corporation—have something of interest to attackers (e.g., source code, intellectual property, etc.), they are at risk of being victimized by a cyberattack.

Defensive measures against such attacks include not only such standard techniques as security software, firewalls, and encryption but also procedures for what to do after an attack has been successful. Preventive measures include backing up information to a secure outside source, developing advanced analytic software, and setting up network intelligence systems to create awareness of possible attacks and develop means of defense against them. Identification of a highly sophisticated targeted attack involves three steps: 1) detection, or recognizing the attack; 2) situational awareness, or determining the context of the situation (i.e., what information is being stolen); and 3) intelligence, or finding the solution to the problem. Most successful targeted attacks are designed to take advantage of vulnerabilities in software or programs.

Although sophisticated cyberattacks against Iran's nuclear facilities began under the Bush administration in 2006, President Obama accelerated the program under the code name "Olympic Games."[12] Most conspicuously, an American and Israeli cybereffort (later called "Stuxnet" by computer security experts) attacked Iran's Natanz nuclear plant. Additional attacks in the weeks following the initial assault temporarily disabled approximately 1,000 of the 5,000 uranium-enrichment centrifuges in that facility.

The implications of Stuxnet's success in disabling a significant part of Nantanz's operations are considerable, including the fact that the United States, whose economy relies greatly on computer networks, would appear to have the most to lose if and when cyberattack capability becomes widespread. With such cybertechnology, plans and programs in other countries can also be disrupted or sabotaged; however, it is not an easy matter, for there are significant disadvantages associated with using any cyberweapon.

First, cyberweapons are very time consuming in their development as well as in their transfer to the physical site of the target. The team that developed Stuxnet had to physically transfer it via

thumb drives into the Nantanz facility, an operation that was both risky and time-consuming. Because many Middle Eastern infrastructure systems aren't accessible via the Internet, other measures have to be taken in order to infect them; this is why using a cyberweapon to attack Syrian armed forces, for instance, might be futile. The Pentagon is accelerating the development of equipment that utilizes radio signals to insert computer code into system hardware that is offline and therefore inaccessible from the Internet.

Second, cyberweapons have shown the capability to jump from one computer system to another and should therefore be extremely limited in their use as well as intended targets. The implications of this can be seen with Stuxnet's "escape" into the Internet; if Stuxnet were capable of targeting anything else but nuclear centrifuges, the possible damage that could occur might be catastrophic. Third, although unreliable, cyberweapons can be used as leverage to exert dominion over other nations. For instance, the ostensible reason for the cyberattacks against Iran was to prevent war between Israel and Iran.

Although the very nature of computer networks limits the kinds of cyber attacks that can be carried out, cyberwarfare is nonetheless coming to the forefront of weapons strategies. Similarly, cybersecurity measures and defenses are also becoming increasingly important, as DARPA and the USCYBERCOM are given billions of dollars for building and managing new cyberweapons as well as state of the art cybersecurity.

Like other new cutting-edge military technologies, for good and ill, future developments of cyberwarfare are unpredictable, risky, and ethically contentious. To paraphrase the noted ethicist Peter Singer, the growth of technology is exponential whereas that of human institutions and societies grows at a much slower—even glacial—pace. Cyberweapons are currently being developed outside of any regulatory framework. The "Stuxnet" computer worm was essentially the starting gun of what will likely become a unique kind of international competition. Unlike nuclear weapons, for example, in which countries enter into arms races while ostensibly hoping that those weapons will not be used, cyberwarfare is already upon us: Countries are not only developing various computer worms, viruses, and so on and then storing them for possible use in the future, they are actually using these weapons right now, without any overt state of war.

Has Technology Made War Obsolete?

In the age of nuclear and biochemical weapons, some people claim that the destructiveness of these devices has made war obsolete. It is interesting to note, however, that this suggestion is not unique to contemporary weapons of mass destruction: Throughout history, people have regularly claimed that the latest advances in weaponry, by their very deadliness, will somehow prevent war. And then comes the next one. (This brings to mind Mark Twain's comment: "It is easy to stop smoking; I've done it many times.")

Following the invention of the bayonet, for example, an English editor wrote in 1715 that "perhaps Heaven hath in Judgment inflicted the Cruelty of this invention on purpose to fright Men into Amity and Peace, and into an Abhorrence of the Tumult and Inhumanity of War." Similarly, Alfred Nobel hoped that his new invention, dynamite, would make war impossible. In 1910, an Englishman, Norman Angell, wrote a best-selling book, *The Great Illusion*, in which he argued that because of the economic interconnectedness of nations, as well as the increased destructiveness of modern military forces, war had finally become impossible. The "great illusion" was that no one

could rationally conceive of or wage war in the 20th century; ironically, World War I began just 3 years after the publication of Angell's book. And in that conflict, the invention of the machine gun made neither people nor war obsolete. Rather, it led to the deaths of hundreds of thousands, often in just a single military engagement, such as the Battle of the Somme.

Since the dawn of the nuclear age in 1945, some observers of the global military scene have once again suggested that since war has become unacceptably destructive—to a would-be aggressor and even to a supposed "victor"—the likelihood of war has actually decreased. Although this line of reasoning may appear somewhat comforting, it is also seriously flawed. Let us grant that nuclear war, because of its potential for global annihilation, is in a sense its own deterrent. States possessing nuclear weapons (especially the major superpowers) may well be especially cautious in any conflict with other nuclear weapons states. But at the same time, theories of mutual nuclear deterrence seem to have produced the expectation that because of the seriousness of nuclear war, each side can count on the other to refrain from anything resembling a nuclear provocation, which in turn makes the world yet more "safe for conventional war."

In addition, there is the great danger that in a nuclear confrontation, each side will presume that the other will be deterred by the prospect of annihilation and, therefore, expect the other to back down, while remaining determined to stand firm itself. Moreover, nuclear weapons carry with them an inherent ambiguity: Since the consequences of using them are so extreme, the threat to do so lacks credibility. As a result, although technological "progress" in war making has undeniably made war—especially nuclear war—horrifically destructive, it remains uncertain whether such developments have actually made war any less likely. In fact, it may well be true that a nuclear conflict, detonation, or accident is more, not less, likely in this century than in the previous one. This is because of the increased likelihood of "accidental" local (or *theater*) nuclear wars, as well as the likely proliferation of small nuclear devices (possibly deliverable in suitcases) and of "rogue states" and "terrorists" seeking to acquire them.

Perhaps most disturbing of all, the fact remains that human beings, including decision makers, are influenced by many things beyond a cool, rational calculation of their perceived best interests. Wars have been initiated for many reasons, often including mistaken judgment or faulty information. And when war takes place, the combatants make use of whatever weapons they have. Never in the history of human warfare to date has an effective weapon been invented and then allowed to rust without at some time being used.

Historically, the impact of "war is obsolete" reasoning has also been ironic: It has not so much discouraged governments from waging war as diminished whatever hesitation scientists, engineers, and industrialists might otherwise have had about lending their talents to the production of ever-more-destructive weapons. Even the liberal view of the perfectibility of human nature helped justify science's contribution to the manufacture of cannons, no less than steam engines or new techniques of manufacturing metal alloys. And from the late 1980s until the present, many scientists similarly justify their participation in "Star Wars" (Strategic Defense Initiative–Ballistic Missile Defense–related) research.

Total War

One of the most important changes in modern war has been the combination of (1) increased destructiveness of the weapons and (2) decreased selectivity as to their targets. The weapons, in short, have become more deadly while at the same time been increasingly directed toward civilians,

even as their actual targeting has become more accurate. Traditionally, noncombatants have been granted immunity during war—in theory, if not always in practice. In his book *A Sentimental Journey through France and Italy,* English author Laurence Sterne recounted how, in the 18th century, he went to France, entirely omitting the fact that at the time England and France were fighting the Seven Years' War! There was a time when states engaged in war without the lives of all their citizens poisoned, corrupted, or otherwise focused by the conflict. In 1808, for example, with the Napoleonic Wars raging, the French Institute conferred its gold medal on Sir Humphry Davy, an Englishman, who blithely crossed the English Channel to accept his award to the enthusiastic cheers of the great scientists of France. However, this separation between civilian and military, between the lives of the people and the behavior of their states, has changed dramatically with the "hardening" of political boundaries as well as the advent of what has come to be called *total war.*

Although to some extent military forces have long been raised by taxing the population at large, armies in the field had largely supported themselves by foraging, purchasing, or pillaging. With the advent of immense national forces that employed advanced technology and were unable to provide for themselves, it became necessary to mobilize the "home front" in order to provide needed food, clothing, and munitions. As entire populations were enlisted in the war effort, it became increasingly difficult to distinguish between combatants and noncombatants: After all, it was argued, how can the enemy be limited to the person who pulls a trigger, ignoring those who build the bombs, guns, ships, and other articles of war? Furthermore, why shouldn't war also be waged against those who make the clothing used in military uniforms or even those who grow the food, without which no military force can be maintained?

During the Russian retreat before Napoleon's invading French army, partisans destroyed crops and other civilian articles that might be useful to the invader. And toward the end of the War Between the States, also known as the Civil War in the United States, the Union's General Sherman marched destructively through Georgia, punishing the civilians in that part of the Confederacy no less than the rebel military. Total war was therefore not unknown by the 20th century; civilians, moreover, have in many cases suffered greatly after their side was militarily defeated, especially if their city was sacked. New in 20th-century total war, however, was the organized use of military force directly and explicitly against an opponent's homeland in order to win the war.

Total war became institutionalized during World War I, with the first use of the term *home front* and the direct and deliberate targeting of civilians maintaining that front. Italy had actually initiated military bombing of noncombatants during its 1911 campaign in Libya, but Germany's use of zeppelins to bomb London was the first major attack on a home front. To appreciate some of the ambivalence that this tactic raised among the perpetrators, consider the following letter from Captain Peter Strasser, chief of Germany's naval airship division, to his mother:

> We who strike the enemy where his heart beats have been slandered as "baby-killers" and "murderers of women." ... What we do is repugnant to us too, but necessary. Very necessary. Nowadays there is no such animal as a non-combatant; modern warfare is total warfare. A soldier cannot function at the front without the factory worker, the farmer and all the other providers behind him. You and I, mother, have discussed this subject, and I know you understand what I say. My men are brave and honorable. Their cause is holy, so how can they sin while doing their duty? If what we do is frightful, then may frightfulness be Germany's salvation.[13]

Loosening of Restraints

The tendency toward total war at that time was widespread and certainly not limited to Germany. For example, the British naval blockade of Germany during World War I caused great suffering and widespread malnutrition, leading to an estimated 800,000 additional civilian deaths. As the historian John Nef put it, "One consequence of industrialization was to loosen the restraints upon war. With the growing material power to make war, what was needed was more politeness, more art, more wit in the conduct of international relations. What came was more grossness."[14]

What also came, as a result of national commitment to total war, was an inability on the part of the belligerents to call a halt to the carnage. Thus, for example, the disputes leading up to World War I were in their own way no more serious than those of the 18th century, which were resolved with much less bloodshed. What happened, in part, was that, according to the military historian Gwynne Dyer:

> the techniques of war had completely overpowered the ability of governments to limit their commitment to it. The axiom that force can only be overcome by greater force drove them to make war total, and the scale of the sacrifices they then had to demand of their citizens required that the purposes of the war must also be great. . . . When the people's willingness to go on making sacrifices has been sustained in every country by hate propaganda that depicts the war as a moral crusade against fathomless evil—then governments cannot just stop the fighting, sort out the petty and obscure Balkan quarrel that triggered it, swap around a few colonies and trade routes, and thank the surviving soldiers and send them home. Total war requires the goal of total victory, and so the propaganda has become the truth: the future of the nation (or at least the survival of the regime) really does depend on victory, no matter what the war's origins were.[15]

Strategic Bombing

The invention of airplanes, and with it the possibility of long-range, strategic bombing, opened up yet another phase in the march of total war. Following the horrors of trench warfare in World War I, some military analysts initially welcomed the possibility of attacking an enemy's homeland as a means of guaranteeing that future wars would be short and, on balance, less destructive than in the recent past. Foremost among these theorists was Italian Air Force General Guido Douhet (1869–1930), who emphasized that air power, applied directly to an enemy's industry and to the workforce that sustained its war effort, would destroy that side's "will to resist" and break its morale, resulting in a relatively quick and painless victory:

> A complete breakdown of the social structure cannot but take place in a country being subjected to . . . merciless pounding from the air. The time would soon come when, to put an end to horror and suffering, the people themselves, driven by the instinct of self-preservation, would rise up and demand an end to the war.[16]

In pursuit of total war, during the 1930s and continuing through World War II, numerous civilian targets were attacked. German bombers targeted Rotterdam (Holland) as well as

Coventry and London (Britain), while British and American strategic bombers eventually retaliated and then exceeded the initial German bombings, conducting large-scale raids against many German urban areas, including notably the firebombings of Hamburg and Dresden. In the Far East, U.S. bombers attacked Japanese civilian targets, culminating in the firebombing of Tokyo and the use of atomic bombs against the cities of Hiroshima and Nagasaki.

With the exception of these latter two cases, there is no evidence that the national will to resist was ever seriously shaken by total war; on the contrary, national will was typically hardened by such attacks (as in Iraq since the coalition's invasion and occupation of that country in 2003 and Serbia during the 1990s), even as the civilian casualty toll mounted. It is estimated, for example, that German bombs killed 60,000 British civilians during World War II and that Allied bombs killed more than 500,000 Germans and 500,000 Japanese. Perhaps most troubling of all, today many decision makers and others take civilian casualties for granted, as "collateral damage," even as they ostensibly attempt to minimize them. Admittedly, however, we have not yet reached Shakespeare's prediction in *Julius Caesar:*

> Blood and destruction shall be so in use
>
> And dreadful objects so familiar,
>
> That mothers shall but smile when they behold
>
> Their infants quartered with the hands of war. (III, i)

Wars, Empires, Colonialism, and National Liberation

To some extent, the history of war *is* the history of civilization or, more accurately, a history of failures in our struggle to be civilized. The earliest peace treaties known are clay tablets dating from about 3000 BCE and that resulted from wars among the city-states of the Tigris and Euphrates valley. The rise and fall of empires and states have been marked—if not specifically caused—by a pattern of military successes followed eventually by defeats. Empires that rose by the sword generally died by the sword.

Some Ancient Empires

In the ancient Near East, for example, the Sumerian empire was established around 2500 BCE and replaced by that of Sargon of Akkad, which in turn ended around 2000 BCE Hammurabi then forged a Babylonian empire, which lasted about 200 years, until it was conquered by the Mitanni and the Assyrians around 1400 BCE Egypt began uniting in approximately 3000 BCE, whereupon it spread via conquest and contacted the Mitanni, signing a nonaggression pact with them and with the Hittites around 1400 BCE But the Assyrians eventually conquered Egypt as they did the Babylonians. In turn, the Assyrian capital of Nineveh was destroyed by the revivified Egyptians and Medes in 612 BCE.

Next to rise to prominence were the Persians, who conquered Babylon in 538 BCE. The Persian Empire under Darius I in the 5th century BCE extended from what is now southern Russia to southern Egypt and from the Danube to the Indus rivers. But the Greeks held off the Persians, and following their rather unexpected victory, Athenian Greece entered into its

Golden Age, 500–400 BCE. However, this period of prosperity and cultural creativity was shattered by the devastating Peloponnesian War between Sparta and Athens, and the Greeks never regained their civic and military glory.

Ultimately, the Greeks were defeated by the Macedonians under Philip. Philip's son, Alexander the Great, unified the Greek city-states and enabled the Greeks to conquer Egypt and virtually everything previously held by the Persians. Meanwhile, Rome developed as a major force, conquering Macedonia and Greece and defeating its rival Carthage in the Punic Wars by the 3rd century BCE. The ensuing *Pax Romana* lasted about 500 years, but the western Roman Empire ceased to exist after CE 476, because of successful attacks by such "barbarians" as the Huns, Visigoths, and Vandals. The eastern (Byzantine) part of the Roman Empire later came under attack by Muslim Saracens and ultimately fell to the Turks in 1453. Before this, Islamic forces had conquered Egypt, northern Africa, Palestine, and Spain and were engaged in periodic wars with the Christian Crusaders.

Medieval to Modern Empires

Muslim armies, however, were stopped in their advance into Europe at Tours, in modern-day France, by forces under the leadership of Charles Martel. Charlemagne, Martel's grandson, was subsequently crowned Holy Roman Emperor by the pope, in the forlorn hope of rekindling the power of ancient Rome. Several centuries later, in the 12th century, Genghis Khan, leader of nomadic Mongol herdsmen from central Asia, established the largest land empire ever known, while massacring perhaps tens of millions of people. Although Genghis Khan's army was never conclusively defeated, the Mongol empire eventually gave way as well, largely because the various subjugated peoples retained their cultural identity even as they assimilated certain Mongol traditions.

As the Mongol and Islamic empires receded, others gained prominence, each relying heavily on military power and each relatively short-lived. Thus, the Italian city-states, as well as Spain, Portugal, and the Netherlands, have all had their periods as major world powers, especially through their trading activities, secured by naval power. England and France contested the spoils of the New and Old Worlds for centuries, essentially to a draw. Napoleon, and, in more recent times, Hitler, attempted to conquer large parts of the known world, and although they succeeded briefly (at least in continental Europe), their imperial ambitions were defeated by countervailing military force.

From the 18th to the early 20th centuries, Britain was the dominant world power, but the British Empire has also declined, in large measure hastened by the bloodletting and economic costs of World Wars I and II. Neither the "thousand-year Reich" (Hitler's imperial design for Germany) nor the "greater east Asia co-prosperity sphere" (Japan's euphemism for its imperial sway over Asia) lasted for more than a few years. World War I brought about the end of most European monarchism and of four empires. World War II left the United States and the Soviet Union as the two preeminent global powers; soon thereafter, the Cold War was initiated between them. The end of European colonialism in the 20th century was hastened by numerous wars of national liberation. In the 21st century, what some regard as American Imperialism may be challenged by China's rise to global hegemony.

Wars and Social Change

Although wars have been crucial to many of the major political changes on the world scene, paradoxically, they have often also served to prevent significant social and economic changes.

In this sense, the threat of war has helped maintain the status quo. The *Pax Romana*, during the period of Roman hegemony, was due largely to the ability of Rome to act essentially as (Western) world police. The same was true, but to a lesser extent, during the so-called *Pax Britannica*, from the late 18th century to the early 20th century. Following World War II, the United States attempted to forge a kind of *Pax Americana;* some would claim it succeeded. But it may well be that the only kind of peace likely to be truly lasting and socially significant will have to be something as yet unknown in modern times, a *Pax Mundi*—that is, a global peace associated not with an individual nation but with the entire world.

Owing largely to their advantages in science, socio economic and educational development, and military technology, the major European powers—and, to a lesser extent, the United States and the former Soviet Union—were able to conquer, or at least to dominate militarily and politically, large areas of the globe. In the early stages of European colonial expansion, such indigenous peoples as Native Americans, Africans, and Chinese had numerical superiority, but they lacked modern firearms and often the necessary social and political organization to resist effectively. Cortés, for example, conquered 8 million Aztecs with 400 men with muskets, 16 horses, and 3 cannons. Pizarro was similarly successful in Peru, as was Clive in India. Commodore Perry "opened" Japan with a handful of naval vessels. An Englishman, Hilaire Belloc, offered this sardonic commentary on the crucial role of technology in 19th-century British imperial conquest:

> Whatever happens we have got
>
> The Maxim gun, and they have not.

But just as Native Americans eventually obtained rifles (especially during the late 19th century), anti-*junta* rebels in El Salvador during the 1980s captured large amounts of military hardware, provided initially by the United States to the repressive, neocolonial Salvadoran government. And much of Saddam Hussein's Iraqi arsenal, as well as the arms controlled by the anti-Soviet *mujahideen* in Afghanistan, came by way of their eventual U.S. enemies.

Revolutionary nationalism, especially in the form of guerrilla warfare, has been very successful, particularly since World War II, in evicting the weakened European powers from such regions as eastern Africa, Algeria, Vietnam, and Indonesia. By contrast, revolutionary forces have only rarely triumphed over locally based, nationalist governments, except when those governments were corrupt and generally out of touch with their citizenry, as happened in Russia in 1917, China in 1949, Cuba in 1959, and Nicaragua and Iran in 1979.

The Desirability of Peace Versus Justifications for Wars

Given the positive response that most people have to the word *peace,* it is fair to question why for almost all human cultures and for most of our history we have never attained it; at least, not for long. In fact, for many centuries, war has been considered acceptable, even honorable, by large numbers of people and most governments. How can one explain the conundrum that the same human beings who say they want peace will nonetheless kill other human beings, sometimes ruthlessly and indiscriminately, to obtain it and to protect their own "vital interests" and "national security"? What justifications are provided for violent conflicts, and what are the motivations that underlie decisions made by leaders who make war?

Biological Justifications for Wars

War has long been the ultimate arbiter of human disputes and a way of achieving glory, both for individuals and for entire peoples and nations. Ares, the Greek god of war (Mars was his Roman equivalent), was a major deity, whereas Irene, the Greek goddess of peace, was a minor figure at best. According to Heraklitos, the pre-Socratic philosopher, war (or strife) "is the father of all things." And an influential 19th- and 20th-century intellectual movement, Social Darwinism, maintained that war was not only rewarding, virtuous, and manly but also biologically appropriate.

Social Darwinism attempted to apply (or misapply) the evolutionary concept of natural selection to human political and social activities by providing a biological rationale for national conquests, imperialism, military dictatorships, and the subjugation of "weaker" by "stronger" peoples. But in fact, Social Darwinism is not scientifically valid, since natural selection and thus the process of organic evolution favor living things that are most successful reproductively, not necessarily those that are the most aggressive. Moreover, there is no objective basis for assuming that just because something is the case in the biological world, it is therefore socially desirable, ethically defensible, or even characteristic of the human world. AIDS and typhoid fever, for example, are both "natural" and "organic," yet virtually all people agree that neither is desirable.

Social and Political Justifications for Wars

Some influential Western philosophers, including Hobbes and Hegel, have at times expressed views that deem war not merely natural but beneficial to humanity because, in Hegel's words (intended as a critique of Immanuel Kant's pathbreaking essay *Perpetual Peace*), "war prevents a corruption of nations which a perpetual, let alone an eternal peace would produce."[17]

Although this view may be in disrepute today, throughout most of the "civilized" world the fact is that wars have frequently shaken up the existing (and often unjust) sociopolitical order and have resulted in many changes, not all of them for the worse. Through revolutionary wars and wars of national liberation, many peoples have won their independence from colonial powers, both by overthrowing despotic governments and by repulsing the efforts of other powers to force them back into subjugation. In some cases, however, revolutionary struggles have resulted in newer forms of autocracy, as in the Iranian revolution of 1979, in which the despotic pro-Western shah was overthrown, only to be replaced by the despotic Islamic fundamentalist Ayatollah Khomeini. Still, revolts against oppression should not automatically be condemned because they sometimes go astray after the insurrectionary groups have seized state power.

Thus, wars, especially those fought to throw off the shackles of despotic indigenous regimes or the sometimes less visible controls of imperial global powers, may at times serve the enticing ends of enhancing, at least for a short time, national self-determination and political liberty. Indigenous peoples, no less than those in advanced technological societies, also tend to "rally 'round the flag" in times of perceived military danger, and this sense of patriotic fervor and national unity is usually achieved at the cost of projecting a stereotyped, and often dehumanized, image of "the enemy." Indeed, domestic political elites often employ the unifying effect of war and the threat of war to distract their citizenry from domestic problems and scandals in order to increase electoral support for themselves.

Social Justice and War

Social injustices, such as economic exploitation and political autocracy, are important not only as contributors to structural violence but also as major factors in the outbreak of wars. Perhaps ironically, although the United States of America originally arose following a war of independence from Great Britain in the late 18th century, during the final decades of the 20th century and continuing into the first decade of the 21st, the United States became widely perceived as both an antirevolutionary force and a "status quo power," the "policeman of the world." Not coincidentally, for most American citizens, as well as for privileged Europeans and other economic elites in less affluent societies, the military, cultural, and political hegemony of the United States at the beginning of this millennium is welcomed as the guarantor of their wealth, power, and status. For them, peace means the continuation of things as they now are, with the additional hope that overt violence will be minimized or prevented altogether. Others—perhaps a majority of the world's present population—yearn for dramatic social and economic change from the status quo. And for some of the most militant people, peace is something to kill and die for if it can bring about greater social justice and economic equity. As a Central American peasant is reported to have said, "I am for peace, but not peace with hunger."

The great 18th-century French philosopher Denis Diderot was convinced that a world of justice and plenty would mean a world free from tyranny and war. Hence, in his treatise, the *Encyclopédie,* Diderot hoped to establish peace by disseminating globally all of humanity's accumulated scientific and technical knowledge, from beekeeping and leather tanning to iron forging. Similar efforts continue today, although few advocates of economic and social development and equity claim that the problem of war can be solved simply by spreading knowledge or even by keeping everyone's belly full. It is indeed disquieting that in a time of historically unprecedented affluence in many nations (despite the global economic downturn since 2008) and of the increasing global dissemination of Western (particularly American) economic and cultural ideals, the inhabitants of this planet continue to dissipate their resources and lives fighting among themselves, or preparing to do so, for an increased share of Earth's abundance. Although there is nothing new in the human experience about recourse to war and political violence, what is new, as we shall see, is the global risk involved in these potentially cataclysmic squabbles.

Political Ideologies and Militarism

The noted British historian Michael Howard introduced the term *bellicist* to refer to cultures "almost universal in the past, far from extinct in our own day, in which the settling of contentious issues by armed conflict is regarded as natural, inevitable and right." For example, Howard continues, bellicism during World War I "accounts not only for the demonstrations of passionate joy that greeted the outbreak of war but sustained the peoples of Europe uncomplainingly through years of hardship and suffering."[18]

While this account may overstate the "peoples of Europe's" toleration of horrific loss of life, it does point to the fact that many people are inclined (or manipulated) to identify perceived adversaries as bellicist, while claiming that they (and their governments) are peace loving, if not pacifist. The latter is a term of opprobrium hurled by many political leaders against opponents they

wish to caricature as weak. Not coincidentally, certain political ideologies, notably Fascism and Nazism, have openly glorified war, not only as a means to alleged national political goals but also as a desirable end in itself.

Some Conservative Viewpoints

In contrast with more liberal and progressive political worldviews, conservatism has long tended to look upon war more favorably. Nonetheless, even most conservative ideologies have espoused a preference for peace and war prevention. The mainstream Anglo-American conservative tradition, for example, traces its roots to a rather pessimistic, even bellicose, view of human nature. One of the philosophical founders of this tradition, the great 17th-century English philosopher Thomas Hobbes, warned that because of humanity's ostensibly inherent, competitive, and sinful nature, life for humans in what Hobbes termed "the state of nature" consisted of *bellum omnium contra omnes* (the war of everyone against everyone). For Hobbes, this "natural state" of war required people who wished to avoid violent death to impose on themselves an autocratic governmental authority (which he called the "Leviathan").

More than 2,000 years earlier, Socrates had also argued against democracy and popular sovereignty, though for very different reasons. Socrates claimed that the great majority of Athenian citizens were inclined to be misled and duped by political and religious demagogues and hence could not be trusted to make rational decisions (an assembly of Socrates' peers in fact condemned him to death for "impiety" and "misleading the young"). So, in Plato's *Republic*, Socrates is depicted as arguing that only philosopher-kings should rule, rather than the people as a whole. Plato also concluded from the Peloponnesian War that city-states must be hierarchically and stringently organized if they are to survive in a violent, unruly world in which war seems an unavoidable fact of life.

The mainstream Western conservative tradition also suggests that strong moral and governmental controls over individual conduct are necessary if social order and peace are to be secured. To many conservatives, wars usually occur because we are, at bottom, predatory and aggressive animals by nature and also because social order and political stability constantly threaten to break down. Since social organizations are regarded by most conservatives as basically unstable and often irrational, peace, security, and stability can be safeguarded only by strong laws and the efficacious use of force, thereby achieving a desirable combination of deterrence (to prevent breaches of the peace) and punishment (in case deterrence fails).

For Hobbes, and for many in the mainstream Western conservative tradition, virtually nothing justifies the overthrow of a monarch or duly elected political authority. From this perspective, the "state of nature" is so dangerous and abhorrent that the people make a *social contract* with political authority, whereby they cede to the Leviathan their allegiance (and forgo their right to rebel) in return for protection against real and alleged enemies, foreign and domestic. This is a contract whose purpose is to minimize the risk of *anarchy* (lack of order) within a nation-state. But Hobbes also noted that states interacted with other nations in what was essentially an anarchic situation. "The state of Commonwealths considered in themselves is natural, that is to say, hostile," he declared in *The Citizen*, and so "neither if they cease from fighting, is it therefore to be called peace; but rather a breathing time."[19]

According to mainstream Western conservative political ideology, if power is properly and securely held and wielded, there should be little reason for war or insurrection, except perhaps

for occasional brief wars to adjust the "international state system"—that is, for what has come to be called "reasons of state." War may be acceptable, even laudable, if it serves to prevent civic and moral breakdown. For example, the Roman historian Livy (59 BCE to CE 17) reported approvingly in *The Early History of Rome* that the Roman Senate had "ordered an immediate raising of troops and a general mobilization on the largest possible scale" in the hope that the revolutionary proposals that some Roman tribunes were bringing forth might be forgotten in the bustle and excitement of three imminent military campaigns against Rome's perceived enemies. The Roman general Vegetius is first credited with having coined the phrase *si vis pacem, para bellum* ("if you wish peace, prepare for war"). And in more recent times, the doctrines of "balance of power," "peace through strength," "national security," and "*Realpolitik*" have continued this line of conservative political thought.

Probably the most articulate spokesperson for conservative political theory in the English-speaking world was the 18th-century orator and statesman Edmund Burke. Reacting to the violent extremes of the French Revolution, Burke articulated mainstream Anglo-American conservative political doctrine by stressing the primacy of "community" and "tradition," the importance of preserving existing institutional order, and skepticism about the perfectibility of human societies and individual persons. According to Burke, society is a partnership "not only between those who are living, but between those who are living, those who are dead, and those who are to be born."[20] This philosophy has long been motivated by a lack of trust in the rational potential of autonomous individual citizens and by a deep suspicion of democracy.

Not surprisingly, most conservatives have long been especially concerned about the alleged threats of disorder and subversion being imported from abroad. Writing about the French Revolution, Burke observed, "It is a war between the partisans of the ancient, civil, moral, and political order of Europe the monarchy against a set of fanatical and ambitious atheists which means to change them all." For most conservatives, the traditions inherited from past generations must be respected. Social cohesion and political stability are seen to come from reverence for, and deference to, established authority (which is one reason why K'ung fu-tzu, or Confucius, is also considered a conservative social thinker). Authority per se, and usually patriarchy and authoritarianism as well, are typically valued over equality, spontaneity, and change.

Social hierarchies have also been generally admired by most mainstream conservative political theorists. Hierarchical social and political relations are claimed by conservatives to provide a citizenry with necessary reference points and stability. In the 19th and 20th centuries, however, with the overthrow of hereditary monarchy in most of Europe, mainstream Western conservatism shifted its focus away from a prior veneration of established political authorities and began instead to concentrate more on the advocacy of "rugged individualism" and "free enterprise and free markets," unimpeded by "state interference." This is an ironic inversion of the classical Greco-Roman privileging of community and society over individualism. Many contemporary Anglo-American conservative thinkers in particular have also become ambivalent about the state, generally opposing big government (except in the realm of military expenditures and in support of what has been called "the prison-industrial complex"), yet also revering patriotism and loyalty to the state.

During the late 1990s and through the first decade of the 21st century, a new trend gained momentum within conservative circles, especially in the United States. So-called neo-cons (for "new conservatives") advocated a pro-interventionist foreign policy aimed at toppling regimes deemed unfriendly to the United States and installing governments that are sympathetic to both

democracy and free enterprise. This approach differs from the older, "paleoconservative" perspective, which, although generally more bellicist than its liberal counterpart, takes a more pessimistic view of human nature and thus of the prospects of changing political and socioeconomic systems in other countries. Neo-cons were especially influential during the presidency of George W. Bush; however, their impact waned somewhat as the failures of the Iraq War became increasingly apparent even to traditional war-supporting conservatives.

Some Liberal Viewpoints

Most Anglo-American political liberals have valued highly the autonomous individual, free from political and ecclesiastical authority. Major liberal theorists in the Anglo-American tradition include John Locke, Thomas Jefferson, Jeremy Bentham, John Stuart Mill, John Maynard Keynes, John Kenneth Galbraith, and John Rawls. According to the mainstream liberal tradition in the English-speaking world, political and legal equality are more desirable than social hierarchy. The classical liberalism of the early 18th century (represented most keenly by Jefferson, Bentham, and J. S. Mill) was opposed to monarchism and in favor of free-market entrepreneurship. This early defense of capitalism by classical liberals may come as a surprise to many contemporary conservatives, who have associated liberalism with advocacy of the welfare state. But the two leading theorists and early defenders of capitalist economics, Adam Smith and David Ricardo, were considered the leading liberals of their day. The liberal theorist Norman Angell even claimed in 1910 that capitalists were necessarily opposed to war because "the capitalist has no country, and he knows . . . that arms and conquests and juggling with frontiers serve no ends of his and may very well defeat them, through the great destruction that such wars will generate."[21]

Another major strand in Western liberal political thought addresses the issue of peace from an economic perspective. In *The Spirit of Laws*, the 18th-century French political philosopher Montesquieu proposed that international trade and commerce would naturally tend to promote peace: "Two nations which trade with each other become reciprocally dependent; if it is to the advantage of one to buy, it is to the advantage of the other to sell; and all unions are founded on mutual needs." (This foreshadows the widespread view, sometimes known as "liberal peace theory," that democracies do not go to war against each other in large measure because their economic interests would be severely undermined by international conflicts.) Montesquieu also argued that trade leads to an improvement in manners and basic civility: "It is almost a general rule that wherever there are tender manners, there is commerce, and wherever there is commerce, there are tender manners."[22] In a similar vein, J. S. Mill claimed that "it is commerce which is rapidly rendering war obsolete, by strengthening and multiplying the personal interests which act in natural opposition to it."[23]

Mill's and Montesquieu's views soon became part of the liberal antiwar credo: By expanding commerce and spreading free-market capitalism around the world, as well as by promoting democracy and harnessing public opinion, war could be made obsolete. The leaders of the so-called Manchester School of British economic theory, Richard Cobden and John Bright, for example, in the mid- to late 19th century opposed foreign interventionism by the British crown and maintained that maximum free trade between peoples would serve to make war not only unnecessary but also impossible. As the process of economic globalization gathered steam at the beginning of the 21st century, its supporters have argued similarly that increased trade and

economic interdependence would contribute not only to enhanced wealth for most nations but also to peace. The opponents of contemporary globalization disagree vehemently with these claims.

In a reversal of theoretical roles, however, 20th-century liberals, especially in the United States, placed greater emphasis on social responsibility and community than have the conservative champions of free enterprise and possessive individualism, except possibly in the area of civil liberties, where liberals defend individual rights and freedom and most conservatives prioritize traditional social units, such as the family, church, and state.

With regard to the establishment of peace and the reasons for wars, Anglo-American liberals have decried the excessive power of nation-states and their often imperious leaders. However, most liberals were also caught off guard by the rise of Fascist, racist, and xenophobic movements in 20th-century central Europe, especially in Austria, Germany, and Italy, and in 21st-century Eastern Europe (where Roma, aka gypsies, have been particularly targeted by racists and xenophobics). Perhaps ironically, these countries were also the birthplace of many liberal and progressive ideas, social movements, and political parties. Nonetheless, a combination of right-wing populism, virulent nationalism, and xenophobic ethnocentrism led directly to political authoritarianism and militarist campaigns against perceived threats to the established political orders. With their optimistic view of human nature, most liberals have had great difficulty understanding how this could take place within advanced industrial societies with long-standing democratic traditions and humanistic cultural values.

After World War II, conservatives generally saw the rise of Communism in the former Soviet Union and in "Red China" as the chief peril to "the free world," and they were prepared to use any military and propaganda means necessary to defeat it. By contrast, most Western liberals were less rhetorically aggressive in promoting the "war against Communism," while nonetheless continuing to allocate massive expenditures to military and espionage activities aimed at defeating left-wing governments, many of which were more nationalist than "communist inspired." Both liberals and conservatives applauded in triumphalist ways the apparent end of Soviet Marxism and the breakup of the former Soviet Union in 1991. Still, compared with conservatives, Anglo-American liberals tend to be more favorably disposed to arms control agreements with the Russians and other perceived threats to national security, and they place more hope in the peacemaking and peacekeeping roles of international organizations, such as the United Nations, than do most conservatives, who tend to be quite skeptical of any supranational institutions.

Liberals have on occasion supported specific wars. The Spanish Civil War (1936–1939), for example, was initially seen by virtually all Western progressives as an unambiguously just war, the defense of a popularly elected (socialist) government against an attack by reactionary forces aided by Fascist dictatorships in Germany and Italy. America's entry into World War II occurred under the administration of perhaps the most liberal American president of the 20th century, Franklin Delano Roosevelt. Many liberals associated with the Kennedy and Johnson administrations initially supported America's war in Southeast Asia. And virtually all prominent liberal congressional figures in the United States also were in favor of American involvement in the Persian Gulf War, the war in Kosovo, the invasion of Afghanistan in late 2001, and The North Atlantic Treaty Organization's (NATO) intervention in Libya in 2011. At the same time, the rationale for American involvement in wars of the 1990s shifted from its previous anticommunist rhetoric to a defense of human rights in the face of potentially genocidal *ethnic cleansing* (a term initially employed to depict the actions by ethnic Serbs in Bosnia against Bosnian Muslims and Croats) or in defense of the republic against terrorists "and the states that support or harbor them."

Liberals have typically been more ambivalent about war than most conservatives and typically require a "better rationale" for military action. Nonetheless, by the beginning of the 21st century, traditional liberal and conservative perspectives on war and peace had become even more fractionated. Some conservatives, for example, embraced an isolationist approach to international relations, while others, especially in the United States, favored selective military interventions in order to maintain and enhance the global military and economic preeminence of the United States. Some liberals favor military intervention for humanitarian purposes or to vanquish terrorism, while others oppose any military incursion into another country. Once again, the Iraq War created strange political bedfellows within the United States. Just as some old-line conservatives opposed that war (while neo-cons orchestrated it), an important contingent of "liberal internationalists" or "Wilsonian liberals" (named for their parallel to President Woodrow Wilson's enthusiasm for World War I as a means of reworking global politics) also supported the U.S. overthrow of Saddam Hussein.

Some Progressive or Leftist Viewpoints

Political movements of the far right (and even some moderate right-wing or conservative parties) have rarely if ever professed peace as an important national political goal. By contrast, most left-wing (progressive and/or radical) thinkers and parties have traditionally claimed a strong association with world peace (although, as we have just seen, many of the less radical members of progressive political movements and parties have frequently approved of war under certain conditions). The most explicit and best-known example of a radical left-wing (communist) leader supporting war is Mao Tse-tung, who wrote,

> Political power grows out of the barrel of a gun. . . . All things grow out of the barrel of a gun. . . . Some people ridicule us as advocates of the "omnipotence of war." Yes, we are advocates of the omnipotence of revolutionary war; that is good, not bad. . . . We are advocates of the abolition of war, we do not want war; but war can only be abolished through war, and in order to get rid of the gun it is necessary to take up the gun.[24]

Mao's apparently paradoxical rationale for war (as the best means to abolish war) is the quintessential *Realpolitik* perspective, one that justifies war as the best means to end class violence and social oppression. Ironically, whereas the purported goals of left-wing revolutionary wars differ from the espoused aims of right-wing military campaigns, people from all political perspectives have justified the use of organized state violence as a defensible (if sometimes regrettable) means of attaining allegedly higher political, social, and economic goals, such as freedom and national security.

Within left-wing political traditions, stemming from Karl Marx and continuing through Lenin, Mao, and Che Guevara to the present, there is a further justification for the selective use of revolutionary violence (and even of terror) against established "reactionary" regimes or in defense of "progressive" ones. This is found in the ostensibly humanistic social goals of the use of "selective" violence: the emancipation of workers and other oppressed peoples from capitalist domination and exploitation and the construction of socialism (leading eventually perhaps to a classless, or "communist," society) both domestically and globally.

This radical political tradition is often in opposition to another viewpoint—namely, an antimilitarist, socialist-pacifist tradition, represented in the 20th-century European progressive movements by Rosa Luxemburg, Karl Liebknecht, and Bertrand Russell and in the United States by Eugene V. Debs, Norman Thomas, Emma Goldman, and A. J. Muste. For Muste in particular,

religious considerations loomed large, such as the necessity of personal, faith-based "witness" against war. Muste is particularly well known for his insistence that "there is no way to peace; peace is the way" and that "wars will end when men refuse to fight."

Prior to World War I, European pacifists and socialists had hoped that *worker solidarity* would prevent the outbreak of war. But the war that erupted between 1914 and 1918 was an enormous blow to the optimism of many socialist-pacifists, especially since overwhelming majorities in the European Socialist and Social Democratic parties elected to support their governments' war efforts (with such notable exceptions as Rosa Luxemburg and Karl Liebknecht), rather than to organize antiwar protests and demonstrations. Eighty-five years later, in 1999, many members of the European Left—especially those with important political offices in England and Germany—enthusiastically supported NATO's bombing campaigns in Serbia and Kosovo, despite the protests of many more pacifistically inclined members of their own political parties (such as the Labour, Social Democratic, and Green parties). And in response to the attacks on the United States in 2001, and on Madrid in 2004 and London in 2005, many hitherto "pacifists" on the red/green left sanctioned the use of violence against terrorists in the Middle East and elsewhere.

Similarly troublesome issues arise when there is a significant disparity in wealth and power between two contending parties, with the militarily stronger one satisfied with the status quo and the weaker one, dissatisfied. This is largely the case, for example, in Israel and Palestine: Most Israelis want peace, as do most Palestinians. However, most Israelis are also content with the current situation, whereas most Palestinians are not. Peace, for most Israelis, therefore involves keeping things as they are, whereas for most Palestinians, peace requires change. As a result, insofar as nonviolent means fail to induce such change, many Palestinians—as well as their sympathizers—have become increasingly convinced that only violence will get the other side's attention, never mind actually achieving their desired results.

From a mainstream Israeli perspective, as a senior adviser to the government has pointed out, Israel "cannot make peace while there is violence and when there is no violence it sees little reason to make peace." The situation that emerges is like the paradox of when to repair a leaky roof: You don't want to do it while it is raining (i.e., while violence is occurring, since this can appear to be appeasement), and when it isn't raining, there seems little reason to do anything! This perpetuates a status quo that at least one major party in the conflict, the Palestinians, finds unacceptable and increases the risk of an escalation of violence by all parties.

In summary, radical leftists and other political progressives have long advocated opposition to war in general, although many have believed that the abolition of war, the prevention of genocide, and the struggle against terrorism—and in some cases, even social justice itself—can be accomplished only via war. With the fall of the Soviet Union and the end of the 20th-century Cold War, many progressives have become more involved in local, often environmentally related movements, rather than in the mass antiwar and antinuclear movements with which they had been closely identified between 1950 and 1990, their opposition to the invasion and occupation of Iraq notwithstanding. Whether this continues in the first part of this millennium remains to be seen.

Is War Inevitable?

Many 19th-century liberals viewed war as a deplorable interruption in the linear progression of our species to a better, more peaceful world. Even today, many liberal views of the reasons for wars emphasize the role of misperceptions and cognitive errors (rather than human iniquity on

the part of political leaders who initiate wars). War is, in this view, a blunder, the consequence of human fallibility: If decision makers would only operate more carefully and thoughtfully, most wars could be prevented.

In contrast, there is another, sterner tradition associated with conservative viewpoints. The emphasis here is on innate human weakness, sin, and/or the allegedly unalterable fact of "evil" in human nature. According to one of the most important conservative politicians of the 20th century, Winston Churchill, "The story of the human race is war." From this perspective, wars do not in general occur because one side, presumably the more peace-loving one, misunderstands the other. Rather, wars are usually forced on otherwise rational and peace-loving national leaders because their "vital interests" have been assaulted or because they realistically perceive an impending threat to their "national security" and hence must defend themselves and others against those who would do them harm. According to this view, epitomized by the administration of George W. Bush but not in principle disputed by the Obama administration, the defense of freedom requires a political willingness by national statesmen to go to war if need be.

Regardless of one's thinking about the ultimate, underlying causes of wars, the belief that war is inevitable carries a great danger. Consider, for instance, the idea of a *self-fulfilling prophecy,* in which something that is not necessarily true may become true if enough people believe it will occur. Thus, if one believes that another person or country is an enemy and acts on this assumption, the belief may create a new reality. Similarly, if war is deemed inevitable and societies therefore prepare to fight against each other—by drafting an army, procuring and deploying weapons systems that threaten their neighbors, and/or engaging in bellicose foreign policy—war may well result. Such a war may then be cited as "proof" that it was inevitable from the start. Moreover, it may be used to justify similar bellicose behavior in the future (as was often the case during the Cold War of the late 20th century).

Importantly, many social practices once common and widely viewed by many as inevitable—such as slavery and dueling—are virtually unknown today. If opponents of slavery and dueling had simply conceded the inevitability (if undesirability) of this ancient social practice, they would not have struggled to end it. Nonetheless, it must be acknowledged that ending slavery and dueling may well have been easy compared with ending war, since these social changes were often feasible without regard to what other nation-states, especially the most heavily armed, were doing. A state that renounces war as a means of settling international conflicts may, by contrast, find itself vulnerable to demands and threats made by other, better-armed nations, particularly by nuclear states. In short, unlike the case of slavery in the United States, an end to war cannot be simply declared by a Lincoln-like "emancipation proclamation," which is then unilaterally implemented. An end to war in this millennium seems to require a global will to do so, although this does *not* mean that individual countries are powerless in this respect until everyone agrees.

Can Nations Change?

There are some reasons for guarded optimism. For example, history provides many examples of societies changing dramatically from warlike to peaceful. During the early Middle Ages, the Swiss were among Europe's most bellicose people, fighting successfully against the French in northern Italy and fighting for their own independence against the Holy Roman Empire. But Switzerland hasn't fought a war since 1515, when it was defeated by France and adopted a policy of permanent neutrality. Today, Switzerland's vaunted "neutrality" (most keenly

compromised during World War II due to the support by many Swiss for Nazi Germany) is undergirded by a large, well-equipped, defensively oriented modern army and by a civilian network of underground shelters.

Japan has also changed notably over the centuries. It gave birth to one of the world's great warrior traditions, the code of *Bushidō* and the very aggressive samurai. Within several decades after European firearms reached Japan via Portuguese traders (in 1542), Japanese musketry was among the most advanced in the world. But a century later, guns were virtually absent from all of Japan. And when Commodore Matthew Perry "opened" Japan (for Western trade) in 1853, Japanese warfare was technologically medieval.

The process of Japan's transformation had been remarkable. The 16th-century shogun Tokugawa, upon being victorious over his rivals, centralized all firearms manufacture and arranged for all gunpowder weapons gradually to be destroyed, without replacement. His decision was not based on a wholehearted devotion to peace; rather, it reflected the samurais' great distaste for muskets and cannons, which threatened to ruin the cult of the warrior/nobleman. Despite the reasons for this "conversion," the Japanese example is still inspiring, since it demonstrates that militarism can be curtailed and whole societies reorganized along more peaceful lines, once the authorities (and in democracies, the citizenry) consider such changes to be in their best interest.

However, demilitarization can be reversed, as was the case in Japan during the latter half of the 19th century. After being humiliated by Perry, Japan modernized very rapidly and initiated successful wars against China (1894) and Russia (1904–1905). But Japan's increasingly aggressive and warlike ventures, including its attacks on China and much of the rest of Asia in the late 1930s and on the United States in 1941 at Pearl Harbor, culminated in its defeat and the atomic devastation of Hiroshima and Nagasaki in 1945. Since the end of World War II, Japan has kept its military force considerably smaller than that of comparably affluent nations (in part because it has been "protected by America's nuclear umbrella") and has instead devoted its energies to economic growth (although there is currently much internal debate about Japan increasing its military role).

Germany has been similarly variable in its war/peace behavior. After the devastating Thirty Years' War, the principalities and kingdoms in the German-speaking world went on to become the philosophical, musical, and scientific centers of central Europe, although militarism continued to flourish in Prussia, the most influential of the German states. Beginning around 1860, with the wars of German unification, the newly constituted state of Germany became increasingly militarized, a process culminating in Germany's military aggression during World War I and World War II and in its total defeat by the Allies in 1945. Since then, Germany (like Japan) has been comparatively demilitarized, although it participated directly in NATO's military strikes against Serbia in 1999 and has played a "support" role in Afghanistan, much to the consternation of Germany's considerable antiwar movement.

Peaceful traditions can be ruptured by war, just as peaceful societies can become militarized. For example, despite long-standing Jewish advocacy of peace and nonviolence, modern-day Israel expends about 30% of its Gross National Product on its military, and Israel has been involved in five wars (1948, 1956, 1967, 1974, and 2006), as well as many military incursions into Lebanon, during its brief existence. On the other hand, nations that had previously been rent by war and domestic violence can renounce those behaviors, as did Costa Rica in 1948, when the government abolished its standing army.

War can become a national habit, and militarism a way of life. But so can peace. Long-standing traditions of war and conflict may, with sufficient popular support, give way to nonbellicose traditions. Great Britain and France, for example, which were bitter opponents for hundreds of years and

had fought many devastating wars against each other, were close allies for much of the 20th century, as were other longtime enemies, such as the United States and Great Britain. Kenneth Boulding, one of the founders of peace studies, has pointed out that a zone of "stable peace" has spread to include most of Western Europe (though notably not in the Balkans or in Northern Ireland and the Basque region of Spain), North America, and Oceania (Australia and New Zealand). Within this zone, war seems very unlikely to break out between democratically governed nation-states.

The case of Northern Ireland provides another, more recent example of a transition from war to peace. In 2005, the (Catholic) Irish Republican Army disarmed and pledged never to resume its unsuccessful, violent campaign to drive Britain out of Northern Ireland, while the (Protestant) Ulster Volunteer Force made a parallel commitment, with both sides agreeing to political power sharing. There has been violent conflict between Irish Catholics and Protestant English essentially since the Norman conquest in 1066, and more actively since Henry VIII sought to impose Protestantism and English land ownership on an overwhelmingly Catholic indigenous Irish population. It is certainly possible that the current agreement will break down at some point, but the fact that these belligerents have finally agreed to peace after literally centuries of violent animosity must be seen as a hopeful step and a powerful statement of the capacity of people to change.

Are We "Winning the War Against War" and the "Fight Against Violence?"

According to the noted psychologist Steven Pinker and the military historian Joshua Goldstein, the answer, perhaps surprisingly, is a qualified yes, because long-term historical trends indicate [25]

1. Wars today are measurably fewer and smaller than 30 years ago.
2. The number of people killed directly by war violence has decreased by 75% in that period.
3. Interstate wars have become very infrequent and relatively small.
4. Wars between "great powers" have not occurred for more than 50 years.
5. The number of civil wars is also shrinking, though less dramatically, as old ones end faster than new ones begin.

Based on these recent trends, Goldstein concludes that "For now peace is increasing. Year by year, we are winning the war on war." Why? Because, according to Goldstein, of the "efforts of international peacekeepers, diplomats, peace movements, and other international organizations" (such as the UN, EU, NATO, African Union, as well as other nongovernmental actors and individuals) "in war-torn and postwar countries . . . ." Bottom line: "World peace is not preordained and inevitable, but neither is a return to large-scale war."

And Pinker argues that "believe it or not . . . today we may be living in the most peaceable era in our species existence . . . ." This "makes the present less sinister and the past less innocent." Pinker's evidence for this possibly striking and counterintuitive claim includes the facts that:

1. Homicide rates in Europe have declined 30-fold since the Middle Ages.
2. Human sacrifice, slavery, punitive torture, and mutilation have been abolished around the world.

3. Wars between developed countries have vanished, and even in the developing world (civil) wars kill a fraction of the numbers they did decades ago.
4. Rape, battering, hate crimes, deadly riots, child abuse, cruelty to animals—"every category of violence from deaths in war to the spanking of children to the number of motion pictures in which animals were harmed . . . declined."
5. "Forms of institutionalized violence that can be eliminated by the stroke of a pen—such as capital punishment, the criminalization of homosexuality . . . and the corporal punishment of children in schools—will continue to decline."

However one judges the merits of these claims, the desirability of peace or the legitimacy of (at least some) wars, and the defensibility of at least some forms of violence, such as "self-defense," it should be clear that peace and war exist on a continuum of violent/nonviolent national behaviors and that they constantly fluctuate. Neither should be taken for granted, and neither is humanity's "natural state." The human condition—whether to wage war or to strive to build an enduring peace—is for us to decide.

The Nature and Functions of Conflict

We end this chapter with a brief discussion of various ways of conceptualizing conflict. The word *rivalry,* for example, originated with the Latin *rivus* (river or stream). Rivals were literally "those who use a stream in common." Competitors, by contrast, are those who seek to obtain something that is present in limited supply, such as water, food, mates, or status. But the word *enemy* derives from the Latin *in* (not) plus *amicus* (friendly), and it implies a state of active hostility. Rivals necessarily compete, if there is a scarcity of a sought-after resource—this much is unavoidable—but they do not have to be enemies. The word *conflict,* on the other hand, derives from the Latin *confligere,* which means literally "to strike together." It is impossible for two physical objects, such as two billiard balls, to occupy the same space. They conflict, and if either is in motion, the conflict will be resolved by a new position for both of them.

Within the human realm, conflict occurs when different social groups are rivals or otherwise in competition. Such conflicts can have many different outcomes: one side changed, one side eliminated, both sides changed, neither side changed, or (rarely) both sides eliminated. Conflicts can be resolved in many ways: by violence, by the issues changing over time, by the deaths (natural or otherwise) of one or more of the conflicting parties, or by mutual agreement. Most people would agree that the latter is best.

A FINAL NOTE ON WAR

Today's armed conflicts, as previously noted, rarely involve a formal declaration of war, probably because, in general, diplomatic formalities are less prominent, and war is increasingly considered an illegitimate way to settle grievances. However, wars—often under various euphemisms—are still taking place, causing immense destruction and misery. Moreover, the threat of war remains great, with its likely consequences more severe and potentially far-reaching than ever.

The history of war in the 20th and early 21st centuries shows that human life certainly is *not* considered priceless. It also shows that some lives are valued more than others, especially those of white, Western male soldiers and decision makers when they choose to perform military "operations" on other people. Moreover, a great danger lurks in a very special kind of calamity—nuclear or chemical-biological war—that could be catastrophic not only for all humans but also, perhaps, for all life on Earth.

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