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Chapter 17
Violence

> The story of the human race is war. Except for brief and precarious interludes there has never been peace in the world; and long before history began murderous strife was universal and unending.[1]

Winston Churchill's summary of our species could be dismissed as the pessimism of a man who fought history's most awful war and was present at the birth of a cold war that could have destroyed humanity altogether. In fact it has sadly stood the test of time. Though the cold war is a memory, and hot wars between major nations are rare, we still do not have peace in the world. Even before the infamous year of 2001, with its horrific terrorist attacks on the United States and subsequent war in Afghanistan, the World Conflict List catalogued sixty-eight areas of systematic violence, from Albania and Algeria through Zambia and Zimbabwe.[2]

Churchill's speculation about prehistory has also been borne out. Modern foragers, who offer a glimpse of life in prehistoric societies, were once thought to engage only in ceremonial battles that were called to a halt as soon as the first man fell. Now they are known to kill one another at rates that dwarf the casualties from our world wars.[3] The archaeological record is no happier. Buried in the ground and hidden in caves lie silent witnesses to a bloody prehistory stretching back hundreds of thousands of years. They include skeletons with scalping marks, ax-shaped dents, and arrowheads embedded in them; weapons like tomahawks and maces that are useless for hunting but specialized for homicide; fortification defenses such as palisades of sharpened sticks; and paintings from several continents showing men firing arrows, spears, or boomerangs at.one another and being felled by these weapons.[4] For decades, "anthropologists of peace" denied that any human group had ever practiced cannibalism, but evidence to the contrary has been piling up and now includes a smoking gun. In an 850-year-old site in the American Southwest, archaeologists have found human bones that were hacked up like the bones of animals used for food. They also found traces of human myoglobin (a muscle protein) on pot shards, and—damningly—in a lump of fossilized human excrement.[5] Members *of Homo antecessor,* relatives of the common ancestor of Neanderthals and modern humans, bashed and butchered one another too, suggesting that violence and cannibalism go back at least 800,000 years.[6]

War is only one of the ways in which people kill other people. In much of the world, war shades into smaller-scale violence such as ethnic strife, turf battles, blood feuds, and individual homicides. Here too, despite undeniable improvements, we do not have anything like peace. Though Western societies have seen murder rates fall between tenfold and a hundredfold in the past millennium, the United States lost a million people to homicide in the twentieth century, and an American man has about a one-half percent lifetime chance of being murdered.[7]

History indicts our species not just with the number of killings but with the manner. Hundreds of millions of Christians decorate their homes and adorn their bodies with a facsimile of a device that inflicted an unimaginably agonizing death on people who were a nuisance to Roman politicians. It is just one example of the endless variations of torture that the human mind has devised over the millennia, many of them common enough to have become words in.our lexicon: *to crucify, to draw and quarter, to flay, to press, to stone; the garrote, the rack, the stake, the thumbscrew.* Dostoevsky's Ivan Karamazov, learning of the atrocities committed by the Turks in Bulgaria, said, "No animal could ever be so cruel as a man, so artfully, so artistically

cruel." The annual reports of Amnesty International show that artistic cruelty is by no means a thing of the past.

The reduction of violence on scales large and small is one of our greatest moral concerns. We ought to use every intellectual tool available to understand what it is about the human mind and human social arrangements that leads people to hurt and kill so much. But as with the other moral concerns examined in this part of the book, the effort to figure out what is going on has been hijacked by an effort to legislate the correct answer. In the case of violence, the correct answer is that violence has nothing to do with human nature but is a pathology inflicted by malign elements outside us. Violence is a behavior taught by the culture, or an infectious disease endemic to certain environments.

This hypothesis has become the.central dogma of a secular faith, repeatedly avowed in public proclamations like a daily prayer or pledge of allegiance. Recall Ashley Montagu's UNESCO resolution that biology supports an ethic of "universal brotherhood" and the anthropologists who believed that "nonviolence and peace were likely the norm throughout most of human prehistory." In the 1980s, many social science organizations endorsed the Seville Statement, which declared that it is "scientifically incorrect" to say that humans have a "violent brain" or have undergone selection for violence.[8] "War is not an instinct but an invention," wrote Ortega y Gasset, paralleling his claim that man has no nature but only history.[9] A recent United Nations Declaration on the Elimination of Violence Against Women announced that "violence is part of an historical process, and is not natural or born of biological determinism." A 1999 ad by the National Funding Collaborative on Violence Prevention declared that "violence is learned behavior."[10]

Another sign of this faith-based approach to violence is the averred *certainty* that particular environmental explanations are correct. We *know* the causes of violence, it is repeatedly said, and we also know how to eliminate it. Only a failure of commitment has prevented us from doing so. Remember Lyndon Johnson saying that "all of us know" that the conditions that breed violence are ignorance, discrimination, poverty, and disease. A 1997 article on violence in a popular science magazine quoted a clinical geneticist who echoed LBJ:

> We know what causes violence in our society: poverty, discrimination, the failure of our educational system. It's not the genes that cause violence in our society. It's our social system.[11]

The authors of the article, the historians Betty and Daniel Kevles, agreed:

> We need better education, nutrition, and intervention in dysfunctional homes and in the lives of abused children, perhaps to the point of removing them from the control of their incompetent parents. But such responses would be expensive and socially controversial.[12]

The creed that violence is learned behavior often points to particular elements of American culture as the cause. A member of a toy-monitoring group recently told a reporter, "Violence is a learned behavior. Every toy is educational. The question is, what do you want your children to learn?"[13] Media violence is another usual suspect. As two public health experts recently wrote:

> The reality is that children learn to value and use violence to solve their problems and deal with strong feelings. They learn it from role models in their families and communities. They learn it from the heroes we put in front of them on television, the movies, and video games.[14]

Childhood abuse, recently implicated in Richard Rhodes's *Why They Kill,* is a third putative cause. "The tragedy is that people who have been victimized often become victimizers themselves," said the president of the Criminal Justice Policy Foundation. "It's a cycle we could break, but it involves some expense. As a society, we haven't put our resources there."[15] Note in these statements the mouthing of the creed ("Violence is a learned behavior"), the certainty that it is true ("The reality is"), and the accusation that we suffer from a lack of commitment ("We haven't put our resources there") rather than an ignorance of how to solve the problem.

Many explanations blame "culture," conceived as a superorganism that teaches, issues commands, and doles out rewards and punishments. A *Boston Globe* columnist must have been oblivious to the circularity of his reasoning when he wrote:

> So why is America more violent than other industrialized Western democracies? It's our cultural predisposition to violence. We pummel each other, maul each other, stab each other and shoot each other because it's our cultural imperative to do so.[16]

When culture is seen as an entity with beliefs and desires, the beliefs and desires of actual people are unimportant. After Timothy McVeigh blew up a federal office building in Oklahoma City in 1995, killing 168 people, the journalist Alfie Kohn ridiculed Americans who "yammer about individual responsibility" and attributed the bombing to American individualism: "We have a cultural addiction to competition in this country. We're taught in classrooms and playing fields that other people are obstacles to our own success."[17] A related explanation for the bombing put the blame on American symbols, such as the arrow-clutching eagle on the national seal, and state mottoes, including "Live Free or Die" (New Hampshire) and "With the sword, we seek peace, but under liberty" (Massachusetts).[18]

A popular recent theory attributes American violence to a toxic and peculiarly American conception of maleness inculcated in childhood. The social psychologist Alice Eagly explained sprees of random shootings by saying, "This sort of behavior has been part of the male role as it has been construed in US culture, from the frontier tradition on."[19] According to the theory, popularized in bestsellers like Dan Kindlon's *Raising Cain* and William Pollack's *Real Boys,* we are going through a "national crisis of boyhood in America," caused by the fact that boys are forced to separate from their mothers and stifle their emotions. "What's the matter with men?" asked an article in the *Boston Globe Magazine.* "Violent behavior, emotional distance, and higher rates of drug addiction can't be explained by hormones," it answers.. "The problem, experts say, is cultural beliefs about masculinity—everything packed into the phrase 'a real man.' "[20]

The statement that "violence is learned behavior" is a mantra repeated by right-thinking people to show that they believe that violence should be reduced. It is not based on any sound research. The sad fact is that despite the repeated assurances that "we know the conditions that breed violence," we barely have a clue. Wild swings in crime rates—up in the 1960s and late 1980s, down in the late 1990s—continue to defy any simple explanation. And the usual suspects for understanding violence are completely unproven and sometimes patently false. This is most blatant in the case of factors like "nutrition" and "disease" that are glibly thrown into lists-of the social ills that allegedly bring on violence. There is no evidence, to put it mildly, that violence is caused by a vitamin deficiency or a bacterial infection. But the other putative causes suffer from a lack of evidence as well.

Aggressive parents often have aggressive children, but people who conclude that aggression is learned from parents in a "cycle of violence" never consider the possibility that violent tendencies could be inherited as well as learned. Unless one looks at *adopted* children and shows that they act more like their adoptive parents than like their biological parents, cycles of violence prove nothing. Similarly, the psychologists who note that men commit more acts of

violence than women and then blame it on a culture of masculinity are wearing intellectual blinkers that keep them from noticing that men and women differ in their biology as well as in their social roles. American children are exposed to violent role models, of course, but they are also exposed to clowns, preachers, folk singers, and drag queens; the question is why children find some people more worthy of imitation than others.

To show that violence is caused by special themes of American culture, a bare minimum of evidence would be a correlation in which the cultures that have those themes also tend to be more violent. Even that correlation, if it existed, would not prove that the cultural themes cause the violence rather than the other way around. But there may be no such correlation in the first place.

To begin with, American culture is not uniquely violent. All societies have violence, and America is not the most violent one in history or even in today's world. Most countries in the Third World, and many of the former republics of the Soviet Union, are considerably more violent, and they have nothing like the American tradition of individualism.[21] As for cultural norms of masculinity and sexism, Spain has its machismo, Italy its braggadocio, and Japan its rigid gender roles, yet their homicide rates are a fraction of that of the more feminist-influenced United States. The archetype of a masculine hero prepared to use violence in a just cause is one of the most common motifs in mythology, and it can be found in many cultures with relatively low rates of violent crime. James Bond, for example—who actually has a *license to kill*—is British, and martial arts films are popular in many industrialized Asian countries. In any case, only a bookworm who has never actually seen an American movie or television program could believe that they glorify murderous fanatics like Timothy McVeigh or teenagers who randomly shoot classmates in high school cafeterias. Masculine heroes in the mass media are highly moralistic: they fight bad guys.

Among conservative politicians and liberal health professionals alike it is an article of faith that violence in the media is a major cause of American violent crime. The American Medical Association, the American Psychological Association, and the American Academy of Pediatrics testified before Congress that over 3,500 studies had investigated the connection and only 18 failed to find one. Any social scientist can smell fishy numbers here, and the psychologist Jonathan Freedman decided to look for himself. In fact, only *two hundred* studies have looked for a connection between media violence and violent behavior, and *more than half failed* to find one.[22] The others found correlations that are small and readily explainable in other ways—for example, that violent children seek out violent entertainment, and that children are temporarily aroused (but not permanently affected) by action-packed footage. Freedman and several other psychologists who have reviewed the literature have concluded that exposure to media violence has little or no effect on violent behavior in the world.[23] Reality checks from recent history suggest the same thing. People were more violent in the centuries *before* television and movies were invented. Canadians watch the same television shows as Americans but have a fourth their homicide rate. When the British colony of St. Helena installed television for the first time in 1995, its people did not become more violent.[24] Violent computer games took off in the 1990s, a time when crime rates plummeted.

What about the other usual suspects? Guns, discrimination, and poverty play a role in violence, but in no case is it a simple or decisive one. Guns surely make it easier for people to kill, and harder for them to de-escalate a fight before a death occurs, and thus multiply the lethality of conflicts large and small. Nonetheless, many societies had sickening rates of violence before guns were invented, and people do not automatically kill one another just because they have access to guns. The Israelis and Swiss are armed to the teeth but have low rates of violent personal crime, and among American states, Maine and North Dakota have the lowest homicide rates but almost every home has a gun.[25] The idea that guns increase lethal crime, though certainly plausible, has been so difficult to prove that in 1998 the legal scholar John Lott published a. book of statistical analyses with a title that flaunts the opposite

conclusion: *More Guns, Less Crime.* Even if he is wrong, as I suspect he is, it is not so easy to show that more guns mean *more* crime.

As for discrimination and poverty, again it is hard to show a direct cause-and-effect relationship. Chinese immigrants to California in the nineteenth century and Japanese-Americans in World War II faced severe discrimination, but they did not react with high rates of violence. Women are poorer than men and are more likely to need money to feed children, but they are less likely to steal things by force. Different subcultures that are equally impoverished can vary radically in their rates of violence, and as we shall see, in many cultures relatively affluent men can be quick to use lethal force.[26] Though no one could object to a well-designed program that was shown to reduce crime, one cannot simply blame crime rates on a lack of commitment to social programs. These programs first flourished in the 1960s, the decade in which rates of violent crime skyrocketed.

Scientifically oriented researchers on violence chant a different mantra: "Violence is a public health problem." According to the National Institute of Mental Health, "Violent behavior can best be understood—and prevented—if it is attacked as if it were a contagious disease that flourishes in vulnerable individuals and resource-poor neighborhoods." The public health theory has been echoed by many professional organizations, such as the American Psychological Society and the Centers for Disease Control, and by political figures as diverse as the surgeon general in the Clinton administration and the Republican senator Arlen Specter.[27] The public health approach tries to identify "risk factors" that are more common in poor neighborhoods than affluent ones. They include neglect and abuse in childhood, harsh and inconsistent discipline, divorce, malnutrition, lead poisoning, head injuries, untreated attention deficit hyperactivity disorder, and the use of alcohol and crack cocaine during pregnancy.

Researchers in this tradition are proud that their approach is both "biological"—they measure bodily fluids and take pictures of the brain—and "cultural"—they look for environmental causes of the brain conditions that might be ameliorated by the equivalent of public health measures. Unfortunately, there is a rather glaring flaw in the whole analogy. A good definition of a disease or disorder is that it consists of suffering experienced by an individual because of a malfunction of a mechanism in the individual's body.[28] But as a writer for *Science* recently pointed out, "Unlike most diseases, it's usually not the perpetrator who defines aggression as a problem; it's the environment. Violent people may feel they are functioning normally, and some may even enjoy their occasional outbursts and resist treatment."[29] Other than the truism that violence is more common in some people and places than others, the public health theory has little to recommend it. As we shall see, violence is not a disease in anything like the medical sense.

Pure environmental theories of violence remain an article of faith because they embody the Blank Slate and the Noble Savage. Violence, according to these theories, isn't a natural strategy in the human repertoire; it's learned behavior, or poisoning by a toxic substance, or the symptom of an infectious illness. In earlier chapters we saw the moral appeal of such doctrines: to differentiate the doctrine-holders from jingoists of earlier periods and ruffians of different classes; to reassure audiences that they do not think violence is "natural" in the sense of "good"; to express an optimism that violence can be eliminated, particularly by benign social programs rather than punitive deterrence; to stay miles away from the radioactive position that some individuals, classes, or races are innately more violent than others.

Most of all, the learned-behavior and public health theories are moral declarations, public avowals that the declarer is opposed to violence. Condemning violence is all to the good, of course, but not if it is disguised as an empirical claim about our psychological makeup. Perhaps the purest example of this wishful confusion comes from Ramsey Clark, attorney general in the

Johnson administration and the author of the 1970 bestseller *Crime in America.* In arguing that the criminal justice system should replace punishment with rehabilitation, Clark explained:

> The theory of rehabilitation is based on the belief that healthy, rational people will not injure others, that they will understand that the individual and his society are best served by conduct that does not inflict injury, and that a just society has the ability to provide health and purpose and opportunity for all its citizens. Rehabilitated, an individual will not have the capacity—cannot bring himself—to injure another or take or destroy property.[30]

Would that it were so! This theory is a fine example of the moralistic fallacy: it would be so nice *if* the idea were true that we should all believe *that* it is true. The problem is that it is not true. History has shown that plenty of healthy, rational people can bring themselves to injure others and destroy property because, tragically, an individual's interests sometimes *are* served by hurting others (especially if criminal penalties for hurting others are eliminated, an irony that Clark seems to have missed). Conflicts of interest are inherent to the human condition, and as Martin Daly and Margo Wilson point out, "Killing one's adversary is the ultimate conflict resolution technique."[31]

Admittedly, it is easy to equate health and rationality with morality. The metaphors pervade the English language, as when we call an evildoer *crazy, degenerate, depraved, deranged, mad, malignant, psycho, sick,* or *twisted.* But the metaphors are bound to mislead us when we contemplate the causes of violence and ways to reduce it. Termites are not malfunctioning when they eat the wooden beams in houses, nor are mosquitoes when they bite a victim and spread the malaria parasite. They are doing exactly what evolution designed them to do, even if the outcome makes people suffer. For scientists to moralize about these creatures or call their behavior pathological would only send us all down blind alleys, such as a search for the "toxic" influences on these creatures or a "cure" that would restore them to health. For the same reason, human violence does not have to be a disease for it to be worth combating. If anything, it is the belief that violence is an aberration that is dangerous, because it lulls us into forgetting how easily violence may erupt in quiescent places.

The Blank Slate and the Noble Savage owe their support not just to their moral appeal but to enforcement by ideology police. The blood libel against Napoleon Chagnon for documenting warfare among the Yanomamo is the most lurid example of the punishment of heretics, but it is not the only one. In 1992 a Violence Initiative in the Alcohol, Drug Abuse, and Mental Health Administration was canceled because of false accusations that the research aimed to sedate inner-city youth and to stigmatize them as genetically prone to violence. (In fact, it advocated the public health approach,) A conference and book on the legal and moral issues surrounding the biology of violence, which was to include advocates of all viewpoints, was canceled by Bernadine Healey, director of the National Institutes of Health, who overruled a unanimous peer-review decision because of concerns "associated with the sensitivity and validity of the proposed conference."[32] The university sponsoring the conference appealed and won, but when the conference was held three years later, protesters invaded the hall and, as if to provide material for comedians, began a shoving match with the participants.[33]

What was everyone so sensitive about? The stated fear was that the government would define political unrest in response to inequitable social conditions as a psychiatric disease and silence the protesters by drugging them or worse. The radical psychiatrist Peter Breggin called the Violence Initiative "the most terrifying, most racist, most hideous thing imaginable" and "the kind of plan one would associate with Nazi Germany."[34] The reasons included "the medicalization of social issues, the declaration that the victim of oppression, in this case the Jew, is in fact a genetically and biologically defective person, the mobilization of the state for eugenic purposes and biological purposes, the heavy use of psychiatry in the development of social-control programs."[35] This is a fanciful, indeed paranoid, reading, but Breggin has tirelessly

repeated it, especially to African American politicians and media outlets. Anyone using the words "violence" and "biology" in the same paragraph may be put under a cloud of suspicion for racism, and this has affected the intellectual climate regarding violence. No one has ever gotten into trouble for saying that violence is completely learned.

There are many reasons to believe that violence in humans is not literally a sickness or poisoning but part of our design. Before presenting them, let me allay two fears.

The first fear is that examining the roots of violence in human nature consists of reducing violence to the bad genes of violent individuals, with the unsavory implication that ethnic groups with higher rates of violence must have more of these genes.

There can be little doubt that some individuals are constitutionally more prone to violence than others. Take men, for starters: across cultures, men kill men twenty to forty times more often than women kill women.[36] And the lion's share of the killers are *young* men, between the ages of fifteen and thirty.[37] Some young men, moreover, are more violent than others. According to one estimate, 7 percent of young men commit 79 percent of repeated violent offenses.[38] Psychologists find that individuals prone to violence have a distinctive personality profile. They tend to be impulsive, low in intelligence, hyperactive, and attention-deficient. They are described as having an "oppositional temperament": they are vindictive, easily angered, resistant to control, deliberately annoying, and likely to blame everything on other people.[39] The most callous among them are psychopaths, people who lack a conscience, and they make up a substantial percentage of murderers.[40] These traits emerge in early childhood, persist through the lifespan, and are largely heritable, though nowhere near completely so.

Sadists, hotheads, and other natural-born killers are part of the problem of violence, not just because of the harm they wreak but because of the aggressive posture they force *others* into for deterrence and self-defense. But my point here is that they are not the major part of the problem. Wars start and stop, crime rates yo-yo, societies go from militant to pacifist or vice versa within a generation, all without any change in the frequencies of the local genes. Though ethnic groups differ today in their average rates of violence, the differences do not call for a genetic explanation, because the rate for a group at one historical period may be matched to that of any other group at another period. Today's docile Scandinavians descended from bloodthirsty Vikings, and Africa, wracked by war after the fall of colonialism, is much like Europe after the fall of the Roman Empire. Any ethnic group that has made it into the present probably had pugnacious ancestors in the not-too-distant past.

The second fear is that if people are endowed with violent motives, they can't help being violent, or must be violent all the time, like the Tasmanian Devil in *Looney Tunes* who tears through an area leaving a swath of destruction in his wake. This fear is a reaction to archaic ideas of killer apes, a thirst for • blood, a death wish, a territorial imperative, and a violent brain. In fact, if the brain is equipped with strategies for violence, they are *contingent* strategies, connected to complicated circuitry that computes when and where they should be deployed. Animals deploy aggression in highly selective ways, and humans, whose limbic systems are enmeshed with outsize frontal lobes, are of course even more calculating. Most people today live their adult lives without ever pressing their violence buttons.

So what is the evidence that our species may have evolved mechanisms for discretionary violence? The first thing to keep in mind is that aggression is an organized, goal-directed activity, not the kind of event that could come from a random malfunction. If your lawnmower continued to run after you released the handle and it injured your foot, you might suspect a sticky switch or other breakdown. But if the lawnmower lay in wait until you emerged from the garage and then chased you around the yard, you would have to conclude that someone had installed a chip that programmed it to do so.

The presence of deliberate chimpicide in our chimpanzee cousins raises the possibility that the forces of evolution, not just the idiosyncrasies of a particular human culture, prepared us for violence. And the ubiquity of violence in human societies throughout history and prehistory is a stronger hint that we are so prepared.

When we look at human bodies and brains, we find more direct signs of design for aggression. The larger size, strength, and upper-body mass of men is a zoological giveaway of an evolutionary history of violent male-male competition.[41] Other signs include the effects of testosterone on dominance and violence (which we will encounter in the chapter on gender), the emotion of anger (complete with reflexive baring of the canine teeth and clenching of the fists), the revealingly named fight-or-flight response of the autonomic nervous system, and the fact that disruptions of inhibitory systems of the brain (by alcohol, damage to the frontal lobe or amygdala, or defective genes involved in serotonin metabolism) can lead to aggressive attacks, initiated by circuits in the limbic system.[42]

Boys in all cultures spontaneously engage in rough-and-tumble play, which is obviously practice for fighting. They also divide themselves into coalitions that compete aggressively (calling to mind the remark attributed to the Duke of Wellington that "the Battle of Waterloo was won upon the playing fields of Eton").[43] And children are violent well before they have been infected by war toys or cultural stereotypes. The most violent age is not adolescence but toddlerhood: in a recent large study, almost half the boys just past the age of two, and a slightly smaller percentage of the girls, engaged in hitting, biting, and kicking. As the author pointed out, "Babies do not kill each other, because we do not give them access to knives and guns. The question . . . we've been trying to answer for the past 30 years is how do children learn to aggress. [But] that's the wrong question. The right question is how do they learn not to aggress."[44]

Violence continues to preoccupy the mind throughout life. According to independent surveys in several countries by the psychologists Douglas Ken-rick and David Buss, more than 80 percent of women and 90 percent of men fantasize about killing people they don't like, especially romantic rivals, stepparents, and people who have humiliated them in public.[45] People in all cultures take pleasure in thinking about killings, if we are to judge by the popularity of murder mysteries, crime dramas, spy thrillers, Shakespearean tragedies, biblical stories, hero myths, and epic poems. (A character in Tom Stoppard's *Rosencrantz and Guildenstern Are Dead* asks, "You're familiar with the great tragedies of antiquity, are you? The great homicidal classics?") People also enjoy watching the stylized combat we call "sports," which are contests of aiming, chasing, or fighting, complete with victors and the vanquished. If language is a guide, many other efforts are conceptualized as forms of aggression: intellectual argument *(to shoot down, defeat,* or *destroy* an idea or its proponent), social reform *(to fight crime, to combat prejudice, the War on Poverty, the War on Drugs),* and medical treatment *(to fight cancer, painkillers, to defeat AIDS, the War on Cancer).*

In fact, the entire question of what went wrong (socially or biologically) when a person engages in violence is badly posed. Almost everyone recognizes the need for violence in defense of self, family, and innocent victims. Moral philosophers point out that there are even circumstances in which torture is justified—say, when a captured terrorist has planted a time bomb in a crowded place and refuses to say where it is. More generally, whether a violent mindset is called heroic or pathological often depends on whose ox has been gored. Freedom fighter or terrorist, Robin Hood or thief, Guardian Angel or vigilante, nobleman or warlord, martyr or kamikaze, general or gang leader— these are value judgments, not scientific classifications. I doubt that the brains. or genes of most of the lauded protagonists would differ from those of their vilified counterparts.

In this way I find myself in agreement with the radical scientists who insist that we will never understand violence by looking only at the genes or brains of violent people. Violence is a social and political problem, not just a biological and psychological one. Nonetheless, the phenomena

we call "social" and "political" are not external happenings that mysteriously affect human affairs like sunspots; they are shared understandings among individuals at a given time and place. So one cannot understand violence without a thorough understanding of the human mind.

In the rest of this chapter 1 explore the logic of violence, and why emotions and thoughts devoted to it may have evolved. This is necessary to disentangle the knot of biological and cultural causes that make violence so puzzling. It can help explain why people are prepared for violence but act on those inclinations only in particular circumstances; when violence is, at least in some sense, rational and when it is blatantly self-defeating; why violence is more prevalent in some times and places than in others, despite a lack of any genetic difference among the actors; and, ultimately, how we might reduce and prevent violence.

The first step in understanding violence is to set aside our abhorrence of it long enough to examine why it can sometimes pay off in personal or evolutionary terms. This requires one to invert the statement of the problem—not why violence occurs, but why it is avoided. Morality, after all, did not enter the universe with the Big Bang and then pervade it like background radiation. It was discovered by our ancestors after billions of years of the morally indifferent process known as natural selection.

In my view, the consequences of this background amorality were best worked out by Hobbes in *Leviathan.* Unfortunately, Hobbes's pithy phrase "nasty, brutish, and short" and his image of an all-powerful leviathan keeping us from each other's throats have led people to misunderstand his argument. Hobbes is commonly interpreted as proposing that man in a state of nature was saddled with an irrational impulse for hatred and destruction. In fact his analysis is more subtle, and perhaps even more tragic, for he showed how the dynamics of violence fall out of interactions among rational and self-interested agents. Hobbes's analysis has been rediscovered by evolutionary biology, game theory, and social psychology, and I will use it to organize my discussion of the logic of violence before turning to the ways in which humans deploy peaceable instincts to counteract their violent ones.

Here is the analysis that preceded the famous "life of man" passage:

> So that in the nature of man, we find three principal causes of quarrel. First, competition; secondly, diffidence; thirdly, glory. The first maketh men invade for gain; the second, for safety; and the third, for reputation. The first use violence, to make themselves masters of other men's persons, wives, children, and cattle; the second, to defend them; the third, for trifles, as a word, a smile, a different opinion, and any other sign of undervalue, either direct in their persons or by reflection in their kindred, their friends, their nation, their profession, or their name.[46]

First, competition. Natural selection is powered by competition, which means that the products of natural selection—survival machines, in Richard Dawkins's metaphor—should, by default, do whatever helps them survive and reproduce. He explains:

> To a survival machine, another survival machine (which is not its own child or another close relative) is part of its environment, like a rock or a river or a lump of food. It is something that gets in the way, or something that can be exploited. It differs from a rock or a river in one important respect: it is inclined to hit back. This is because it too is a machine that holds its immortal genes in trust for the future, and it too will stop at nothing to preserve them. Natural selection favors genes that control their survival machines in such a way that they make the best use of their environment. This includes making the best use of other survival machines, both of the same and of different species.[47]

If an obstacle stands in the way of something an organism needs, it should neutralize the obstacle by disabling or eliminating it. This includes obstacles that happen to be other human beings—say, ones that are monopolizing desirable land or sources of food. Even among modern nation-states, raw self-interest is a major motive for war. The political scientist Bruce Bueno de Mesquita analyzed the instigators of 251 real-world conflicts of the past two centuries and concluded that in most cases the aggressor correctly calculated that a successful invasion would be in its national interest.[48]

Another human obstacle consists of men who are monopolizing women who could otherwise be taken as wives. Hobbes called attention to the phenomenon without knowing the evolutionary reason, which was provided centuries later by Robert Trivers: the difference in the minimal parental investments of males and females makes the reproductive capacity of females a scarce commodity over which males compete.[49] This explains why men are the violent gender, and also why they always have something to fight over, even when their survival needs have been met. Studies of warfare in pre-state societies have confirmed that men do not have to be short of food or land to wage war.[50] They often raid other villages to abduct women, to retaliate for past abductions, or to defend their interests in disputes over exchanges of women for marriage. In societies in which women have more say in the matter, men still compete for women by competing for the status and wealth that tend to attract them. The competition can be violent because, as Daly and Wilson point out, "Any creature that is recognizably on track toward complete reproductive failure must somehow expend effort, often at risk of death, to try to improve its present life trajectory."[51] Impoverished young men on this track are therefore likely to risk life and limb to improve their chances in the sweepstakes for status, wealth, and mates.[52] In all societies they are the demographic sector in which the firebrands, delinquents, and cannon fodder are concentrated. One of the reasons the crime rate shot up in the 1960s is that boys from the baby boom began to enter their crime-prone years.[53] Though there are many reasons why countries differ in their willingness to wage war, one factor is simply the proportion of the population that consists of men between the ages of fifteen and twenty-nine.[54]

This whole cynical analysis may not ring true to modern readers, because we cannot think of other people as mere parts of our environment that may have to be neutralized like weeds in a garden. Unless we are psychopaths, we *sympathize* with other people and cannot blithely treat them as obstacles or prey. Such sympathy, however, has not prevented people from committing all manner of atrocities throughout history and prehistory. The contradiction may be resolved by recalling that people discern a moral circle that may not embrace all human beings but only the members of their clan, village, or tribe.[55] Inside the circle, fellow humans are targets of sympathy; outside, they are treated like a rock or a river or a lump of food. In a previous book I mentioned that the language of the Wari people of the Amazon has a set of noun classifiers that distinguish edible from inedible objects, and that the edible class includes anyone who is not a member of the tribe. This prompted the psychologist Judith Rich Harris to observe:

In the Wari dictionary
Food's defined as "Not a Wari."
Their dinners are a lot of fun
For all but the un-Wari one.

Cannibalism is so repugnant to us that for years even anthropologists failed to admit that it was common in prehistory. It is easy to think: could other human beings really be capable of such a depraved act? But of course animal rights activists have a similarly low opinion of meat eaters, who not only cause millions of preventable deaths but do so with utter callousness: castrating and branding cattle without an anesthetic, impaling fish by the mouth and letting them suffocate in the hold of a boat, boiling lobsters alive. My point is not to make a moral case for vegetarianism but to shed light on the mindset of human violence and cruelty. History and

ethnography suggest that people can treat strangers the way we now treat lobsters, and our incomprehension of such deeds maybe compared with animal rights activists' incomprehension of ours. It is no coincidence that Peter Singer, the author of *The Expanding Circle,* is also the author of *Animal Liberation.*

The observation that people may be morally indifferent to other people who are outside a mental circle immediately suggests an opening for the effort to reduce violence: understand the psychology of the circle well enough to encourage people to put all of humanity inside it. In earlier chapters we saw how the moral circle has been growing for millennia, pushed outward by the expanding networks of reciprocity that make other human beings more valuable ' alive than dead.[56] As Robert Wright has put it, "Among the many reasons I don't think we should bomb the Japanese is that they built my minivan." Other technologies have contributed to a cosmopolitan view that makes it easy to imagine trading places with other people. These include literacy, travel, a knowledge of history, and realistic art that helps people project themselves into the daily lives of people who in other times might have been their mortal enemies.

We have also seen how the circle can shrink. Recall that Jonathan Glover showed that atrocities are often accompanied by tactics of dehumanization such as the use of pejorative names, degrading conditions, humiliating dress, and "cold jokes" that make light of suffering.[57] These tactics can flip a mental switch and reclassify an individual from "person" to "nonperson," making it as easy for someone to torture or kill him as it is for us to boil a lobster alive. (Those who poke fun at politically correct names for ethnic minorities, including me, should keep in mind that they originally had a humane rationale.) The social psychologist Philip Zimbardo has shown that even among the students of an elite university, tactics of dehumanization can easily push one person outside another's moral circle. Zimbardo created a mock prison in the basement of the Stanford University psychology department and randomly assigned students to the role of prisoner or guard. The "prisoners" had to wear smocks, leg irons, and nylon-stocking caps and were referred to by serial numbers. Before long the "guards" began to brutalize them—standing on their backs while they did push-ups, spraying them with fire extinguishers, forcing them to clean toilets with their bare hands—and Zimbardo called off the experiment for the subjects' safety.[58]

In the other direction, signs of a victim's humanity can occasionally break through and flip the switch back to the sympathy setting. When George Orwell fought in the Spanish Civil War, he once saw a man running for his life half-dressed, holding up his pants with one hand. "I refrained from shooting at him," Orwell wrote. "I did not shoot partly because of that detail about the trousers. I had come here to shoot at 'Fascists'; but a man who is holding up his trousers isn't a 'Fascist,' he is visibly a fellow creature, similar to your self."[59] Glover recounts another example, reported by a South African journalist:

> In 1985, in the old apartheid South Africa, there was a demonstration in Durban. The police attacked the demonstrators with customary violence. One policeman chased a black woman, obviously intending to beat her with, his club. As she ran, her shoe slipped off. The brutal policeman was also a well-brought-up young Afrikaner, who knew that when a woman loses her shoe you pick it up for her. Their eyes met as he handed her the shoe. He then left her, since clubbing her was no longer an option.[60]

We should not, however, delude ourselves into thinking that the reaction of Orwell (one of the twentieth century's greatest moral voices) and of the "well-brought-up" Afrikaner is typical. Many intellectuals believe that the majority of soldiers cannot bring themselves to fire their weapons in battle. The claim is incredible on the face of it, given the tens of millions of soldiers who were shot in the wars of the last century. (I am reminded of the professor in Stoppard's *Jumpers* who noted that Zeno's Paradox prevents an arrow from ever reaching its target, so Saint Sebastian must have died of fright.) The belief turns out to be traceable to a single,

dubious study of infantrymen in World War II. In follow-up interviews, the men denied having even been *asked* whether they had fired their weapons, let alone having claimed they hadn't.[61] Recent surveys of soldiers in battle and of rioters in ethnic massacres find that they often kill with gusto, sometimes in a state they describe as "joy" or "ecstasy."[62]

Glover's anecdotes reinforce the hope that people are capable of putting strangers inside a violence-proof moral circle. But they also remind us that the default setting may be to keep them out.

Secondly, diffidence, in its original sense of "distrust." Hobbes had translated Thucydides' *History of the Peloponnesian War* and was struck by his observation that "what made war inevitable was the growth of Athenian power and the fear which this caused in Sparta." If you have neighbors, they may covet what you have, in which case you have become an obstacle to their desires. Therefore you must be prepared to defend yourself. Defense is an iffy matter even with technologies such as castle walls, the Maginot Line, or antiballistic missile defenses, and it is even iffier without them. The only option for self-protection may be to wipe out potentially hostile neighbors first in a preemptive strike. As Yogi Berra advised, "The best defense is a good offense and vice versa."

Tragically, you might arrive at this conclusion even if you didn't have an aggressive bone in your body. All it would take is the realization that others might covet what you have and a strong desire not to be massacred. Even more tragically, your neighbors have every reason to be cranking through the same deduction, and if they are, it makes your fears all the more compelling, which makes a preemptive strike all the more tempting, which makes a preemptive strike by *them* all the more tempting, and so on.

This "Hobbesian trap," as it is now called, is a ubiquitous cause of violent conflict.[63] The political scientist Thomas Schelling offered the analogy of an armed homeowner who surprises an armed burglar. Each might be tempted to shoot first to avoid being shot, even if neither wanted to kill the other. A Hobbesian trap pitting one man against another is a recurring theme in fiction, such as the desperado, in Hollywood westerns, spy-versus-spy plots in cold-war thrillers, and the lyrics to Bob Marley's "I Shot the Sheriff."

But because we are a social species, Hobbesian traps more commonly pit groups against groups. There is safety in numbers, so humans, bound by shared genes or reciprocal promises, form coalitions for protection. Unfortunately, the logic of the Hobbesian trap means there is also *danger* in numbers, because neighbors may fear they are becoming outnumbered and form alliances in their turn to contain the growing menace. Since one man's containment is another man's encirclement, this can send the spiral of danger upward. Human sociality is the original "entangling alliance," in which two parties with no prior animus can find themselves at war when the ally of one attacks the ally of the other. It is the reason I discuss homicide and war in a single chapter. In a species whose members form bonds of loyalty, the first can easily turn into the second.

The danger is particularly acute for humans because, unlike most mammals, we tend to be patrilocal, with related males living together instead of dispersing from the group when they become sexually mature.[64] (Among chimpanzees and dolphins, related males also live together, and they too form aggressive coalitions.) What we call "ethnic groups" are very large extended families, and though in a modern ethnic group the family ties are too distant for kin-based altruism to be significant, this was not true of the smaller coalitions in which we evolved. Even today ethnic groups often *perceive* themselves as large families, and the role of ethnic loyalties in group-against-group violence is all too obvious.[65]

The other distinctive feature of *Homo sapiens* as a species is, of course, toolmaking. Competitiveness can channel toolmaking into weaponry, and diffidence can channel weaponry into an arms race. An arms race, like an alliance, can make war more likely by accelerating the

spiral of fear and distrust. Our species' vaunted ability to make tools is one of the reasons we are so good at killing one another.

The vicious circle of a Hobbesian trap can help us understand why the escalation from friction to war (and occasionally, the de-escalation to detente) can happen so suddenly. Mathematicians and computer simulators have devised models in which several players acquire arms or form alliances in response to what the other players are doing. The models often display chaotic behavior, in which small differences in the values of the parameters can have large and unpredictable consequences.[66]

As we can infer from Hobbes's allusion to the Peloponnesian War, Hobbesian traps among groups are far from hypothetical. Chagnon describes how Yanomamo villages obsess over the danger of being massacred by other villages (with good reason) and occasionally engage in preemptive assaults, giving other villages good reason to engage in their own preemptive assaults, and prompting groups of villages to form alliances that make their neighbors ever more nervous.[67] Street gangs and Mafia families engage in similar machinations. In the past century, World War I, the Six-Day Arab-Israeli War, and the Yugoslavian wars in the 1990s arose in part from Hobbesian traps.[68]

The political scientist John Vasquez has made the point quantitatively. Using a database of hundreds of conflicts from the past two centuries, he concludes that the ingredients of a Hobbesian trap—concern with security, entangling alliances, and arms races—can statistically predict the escalation of friction into war.[69] The most conscious playing-out of the logic of Hobbesian traps took place among nuclear strategists during the cold war, when the fate of the world literally hinged on it. The logic produced some of the maddening paradoxes of nuclear strategy: why it is extraordinarily dangerous to have enough missiles to destroy an enemy but not enough to destroy him after he has attacked those missiles (because the enemy would have a strong incentive to strike preemptively), and why erecting an impregnable defense against enemy missiles could make the world a *more* dangerous place (because the enemy has an incentive to launch a preemptive strike before the completed defense turns him into a sitting duck).

When a stronger group overpowers a weaker one in a surprise raid, it should come as no surprise to a Hobbesian cynic. But when one side defeats another in a battle that both have joined, the logic is not so clear. Given that both the victor and the vanquished have much to lose in a battle, one would expect each side to assess the strength of the other and the weaker to cede the contested resource without useless bloodshed that would only lead to the same outcome. Most behavioral ecologists believe that rituals of appeasement and surrender among animals evolved for this reason (and not for the good of the species, as Lorenz had supposed). Sometimes the two sides are so well matched, and the stakes of a battle are so high, that they engage in a battle because it is the only way to find out who is stronger.[70]

But at other times a leader will march—or march his men—into the valley of death without any reasonable hope of prevailing. Military incompetence has long puzzled historians, and the primatologist Richard Wrangham suggests that it might grow out of the logic of bluff and self-deception.[71] Convincing an adversary to avoid a battle does not depend on *being* stronger but on *appearing* stronger, and that creates an incentive to bluff and to be good at detecting bluffs. Since the most effective bluffer is the one who believes his own bluff, a limited degree of self-deception in hostile escalations can evolve. It has to be limited, because having one's bluff called can be worse than folding on the first round, but when the limits are miscalibrated and both sides go to the brink, the result can be a human disaster. The historian Barbara Tuchman has highlighted the role of self-deception in calamitous wars throughout history in her books *The Guns of August* (about World War I) and *The March of Folly: From Troy to Vietnam.*

A readiness to inflict a preemptive strike is a double-edged sword, because it makes one an inviting *target* for a preemptive strike. So people have invented, and perhaps evolved, an alternative defense: the advertised deterrence policy known as *lex talionis,* the law of retaliation, familiar from the biblical injunction "An eye for an eye, a tooth for a tooth."[72] If you can credibly say to potential adversaries, "We won't attack first, but if we are attacked, we will survive and strike back," you remove Hobbes's first two incentives for quarrel, gain and mistrust. The policy that you will inflict as much harm on others as they inflicted on you cancels their incentive to raid for gain, and the policy that you will not strike first cancels their incentive to raid for mistrust. This is reinforced by the policy to retaliate with *no more harm* than they inflicted on you, because it allays the fear that you will use a flimsy pretext to justify a massive opportunistic raid.

The nuclear strategy of "Mutual Assured Destruction" is the most obvious contemporary example of the law of retaliation. But it is an explicit version of an ancient impulse, the emotion of vengeance, that may have been installed in our brains by natural selection. Daly and Wilson observe, "In societies from every corner of the world, we can read of vows to avenge a slain father or brother, and of rituals that sanctify those vows—of a mother raising her son to avenge a father who died in the avenger's infancy, of graveside vows, of drinking the deceased kinsman's blood as a covenant, or keeping his bloody garment as a relic."[73] Modern states often find themselves at odds with their citizens' craving for revenge. They prosecute vigilantes—people who "take the law into their own hands"—and, with a few recent exceptions, ignore the clamoring of crime victims and their relatives for a say in decisions to prosecute, plea-bargain, or punish.

As we saw in Chapter 10, for revenge to work as a deterrent it has to be implacable. Exacting revenge is a risky business, because if an adversary was dangerous enough to have hurt you in the first place, he is not likely to take punishment lying down. Since the damage has already been done, a coolly rational victim may not see it in his interests to retaliate. And since the aggressor can anticipate this, he could call the victim's bluff and abuse him with impunity. If, on the other hand, potential victims and their kin would be so consumed with the lust for retribution as to raise a son to avenge a slain father, drink the kinsman's blood as a covenant, and so on, an aggressor might think twice before aggressing.[74]

The law of retaliation requires that the vengeance have a moralistic pretext to distinguish it from a raw assault. The avenger must have been provoked by a prior act of aggression or other injustice. Studies of feuds, wars, and ethnic violence show that the perpetrators are almost always inflamed by some grievance against their targets.[75] The danger inherent in this psychology is obvious: two sides may disagree over whether an initial act of violence was justified (perhaps as an act of self-defense, the recovery of ill-gotten gains, or retribution for an earlier offense) or was an act of unprovoked aggression. One side may count an even number of reprisals and feel that the scales of justice have been balanced, while the other side counts an odd number and feels that they still have a score to settle.[76] Self-deception may embolden each side's belief in the rectitude of its cause and make reconciliation almost impossible.

Also necessary for vengeance to work as a deterrent is that the willingness to pursue it be made public, because the whole point of deterrence is to give would-be attackers second thoughts *beforehand.* And this brings us to Hobbes's final reason for quarrel.

Thirdly, glory—though a more accurate word would be "honor." Hobbes's observation that men fight over "a word, a smile, a different opinion, and any other sign of undervalue" is as true now as it was in the seventeenth century. For as long as urban crime statistics have been recorded, the most frequent cause of homicide has been "argument"—what police blotters classify as "altercation of relatively trivial origin; insult, curse, jostling, etc."[77] A Dallas homicide detective recalls, "Murders result from little ol' arguments over nothing at all. Tempers flare. A fight starts, and somebody gets stabbed or shot. I've worked on cases where the principals had

been arguing over a 10 cent record on a juke box, or over a one dollar gambling debt from a dice game."[78]

Wars between nation-states are often fought over national honor, even when the material stakes are small. In the late 1960s and early 1970s, most Americans had become disenchanted over their country's involvement in the war in Vietnam, which they thought was immoral or unwinnable or both. But rather than agreeing to withdraw American forces unconditionally, as the peace movement had advocated, a majority supported Richard Nixon and his slogan "Peace with Honor." In practice this turned into a slow withdrawal of American troops that prolonged the military presence until 1973 at a cost of twenty thousand American lives and the lives of many more Vietnamese—and with the same outcome, defeat of the South Vietnamese government. A defense of national honor was behind other recent wars, such as the British retaking of the Falkland Islands in 1982 and the American invasion of Grenada in 1983. A ruinous 1969 war between El Salvador and Honduras began with a disputed game between their national soccer teams.

Because of the logic of deterrence, fights over personal or national honor are not as idiotic as they seem. In a hostile milieu, people and countries must advertise their willingness to retaliate against anyone who would profit at their expense, and that means maintaining a reputation for avenging any slight or trespass, no matter how small. They must make it known that, in the words of the Jim Croce song, "You don't tug on Superman's cape; you don't spit into the wind; you don't pull the mask off the old Lone Ranger; and you don't mess around with Jim."

The mentality is foreign to those of us who can get Leviathan to show up by dialing 911, but that option is not always available. It was not available to people in pre-state societies, or on the frontier in the Appalachians or the Wild West, or in the remote highlands of Scotland, the Balkans, or Indochina. It is not available to people who are unwilling to bring in the police because of the nature of their work, such as Prohibition rum-runners, inner-city drug dealers, and Mafia wise guys. And it is not available to nation-states in their dealings with one another. Daly and Wilson comment on the mentality that applies in all these arenas:

> In chronically feuding and warring societies, an essential manly virtue is the capacity for violence; head-hunting and coup counting may then become prestigious, and the commission of a homicide may even be an obligatory rite of passage. To turn the other cheek is not saintly but stupid. Or contemptibly weak.[79]

So the social constructionists I cited earlier are not wrong in pointing to a culture of combative masculinity as a major cause of violence. But they are wrong in thinking that it is peculiarly American, that it is caused by separation from one's mother or an unwillingness to express one's emotions, and that it is an arbitrary social construction that can be "deconstructed" by verbal commentary. And fans of the public health approach are correct that rates of violence vary with social conditions, but they are wrong in thinking that violence is a pathology in anything like the medical sense. Cultures of honor spring up all over the world because they amplify universal human emotions like pride, anger, revenge, and the love of kith and kin, and because they appear at the time to be sensible responses to local conditions.[80] Indeed, the emotions them selves are thoroughly familiar even when they don't erupt in violence, such as in road rage, office politics, political mudslinging, academic backstabbing, and email flame wars.

In *Culture of Honor,* the social psychologists Richard Nisbett and Dov Cohen show that violent cultures arise in societies that are beyond the reach of the law and in which precious assets are easily stolen.[81] Societies that herd animals meet both conditions. Herders tend to live in territories that are unsuitable for growing crops and thus far from the centers of government. And their major asset, livestock, is easier to steal than the major asset of farmers, land. In herding societies a man can be stripped of his wealth (and of his ability to acquire wealth) in an

eyeblink. Men in that milieu cultivate a hair trigger for violent retaliation, not just against rustlers, but against anyone who would test their resolve by signs of disrespect that could reveal them to be easy pickings for rustlers. Scottish highlanders, Appalachian mountain men, Western cowboys, Masai warriors, Sioux Indians, Druze and Bedouin tribesmen, Balkan clansmen, and Indochinese Montagnards are familiar examples.

A man's honor is a kind of "social reality" in John Searle's sense: it exists because everyone agrees it exists, but it is no less real for that, since it resides in a shared granting of power. When the lifestyle of a people changes, their culture of honor can stay with, them for a long time, because it is difficult for anyone to be the first to renounce the culture. The very act of renouncing it can be a concession of weakness and low status even when the sheep and mountains are a distant memory.

The American South has long had higher rates of violence than the North, including a tradition of dueling among "men of honor" such as Andrew Jackson. Nisbett and Cohen note that much of the South was originally settled by Scottish and Irish herdsman, whereas the North was settled by English farmers. Also, for much of its history the mountainous frontier of the South was beyond the reach of the law. The resulting Southern culture of honor is, remarkably, alive at the turn of the twenty-first century in laws and social attitudes. Southern states place fewer restrictions on gun ownership, allow people to shoot an assailant or burglar without having to retreat first, are tolerant of spanking by parents and corporal punishment by schools, are more hawkish on issues of national defense, and execute more of their criminals.[82]

These attitudes do not float in a cloud called "culture" but are visible in the psychology of individual Southerners. Nisbett and Cohen advertised a fake psychology experiment at the liberal University of Michigan. To get to the lab, respondents had to squeeze by a stooge who was filing papers in a hallway. As a respondent brushed past him, the stooge slammed the drawer shut and muttered, "Asshole." Students from Northern states laughed him off, but students from Southern states were visibly upset. The Southerners had elevated levels of testosterone and cortisol (a stress hormone) and reported lower levels of self-esteem. They compensated by giving a firmer handshake and acting more dominant toward the experimenter, and on the way out of the lab they refused to back down when another stooge approached in a narrow hallway and one of the two had to step aside. It's not that Southerners walk around chronically fuming: a control group who had not been insulted were as cool and collected as the Northerners. And Southerners do not approve of violence in the abstract, only of violence provoked by an insult or trespass.

African American inner-city neighborhoods are among the more conspicuously violent environments in Western democracies, and they too have an entrenched culture of honor. In his insightful essay "The Code of the Streets," the sociologist Elijah Anderson describes the young men's obsession with respect, their cultivation of a reputation for toughness, their willingness to engage in violent retaliation for any slight, and their universal acknowledgment of the rules of this code.[83] Were it not for giveaways in their dialect, such as "If someone disses you, you got to straighten them out," Anderson's description of the code would be indistinguishable from accounts of the culture of honor among white Southerners.

Inner-city African Americans were never goatherds, so why did they develop a culture of honor? One possibility is that they brought it with them from the South when they migrated to large cities after the two world wars—a nice irony for Southern racists who would blame inner-city violence on something distinctively African American. Another factor is that the young men's wealth is easily stealable, since it is often in the form of cash or drugs. A third is that the ghettos are a kind of frontier in which police protection is unreliable—the gangsta rap group Public Enemy has a recording called "911 Is a Joke." A fourth is that poor people, especially young men, cannot take pride in a prestigious job, a nice house, or professional accomplishments, and this may be doubly true for African Americans after centuries of slavery and discrimination. Their reputation on the streets is their only claim to status. Finally, Anderson points out that the code

of the streets is self-perpetuating. A majority of African American families in the inner city subscribe to peaceable middle-class values they refer to as "decent."[84] But that is not enough to end the culture of honor:

> Everybody knows that if the rules are violated, there are penalties. Knowledge of the code is thus largely defensive; it is literally necessary for operating in public. Therefore, even though families with a decency orientation are usually opposed to the values of the code, they often reluctantly encourage their children's familiarity with it to enable them to negotiate the inner-city environment.[85]

Studies of the dynamics of ghetto violence are consistent with Anderson's analysis. The jump in American urban crime rates between 1985 and 1993 can be tied in part to the appearance of crack cocaine and the underground economy it spawned. As the economist Jeff Grogger points out, "Violence is a way to enforce property rights in the absence of legal recourse."[86] The emergence of violence within the new drug economy then set off the expected Hobbesian trap. As the criminologist Jeffrey Pagan noted, gun use spread contagiously as "young people who otherwise wouldn't carry guns felt that they had to in order to avoid being victimized by their armed peers."[87] And as we saw in the chapter on politics, conspicuous economic inequality is a good predictor of violence (better than poverty itself), presumably because men deprived of legitimate means of acquiring status compete for status on the streets instead.[88] It is not surprising, then, that when African American teenagers are taken out of underclass neighborhoods they are no more violent or delinquent than white teenagers.[89]

Hobbes's analysis of the causes of violence, borne out by modern data on crime and war, shows that violence is not a primitive, irrational urge, nor is it a "pathology" except in the metaphorical sense of a condition that everyone would like to eliminate. Instead, it is a near-inevitable outcome of the dynamics of self-interested, rational social organisms.

But Hobbes is famous for presenting not just the causes of violence but a means of preventing it: "a common power to keep them all in awe." His commonwealth was a means of implementing the principle "that a man be willing, when others are so too ... to lay down this right to all things; and be contented with .so much liberty against other men, as he would allow other men against himself."[90] People vest authority in a sovereign person or assembly who can use the collective force of the contractors to hold each one to the agreement, because "covenants, without the sword, are but words, and of no strength to secure a man at all."[91]

A governing body that has been granted a monopoly on the legitimate use of violence can neutralize each of Hobbes's reasons for quarrel. By inflicting penalties on aggressors, the governing body eliminates the profitability of invading for gain. That in turn defuses the Hobbesian trap in which mutually distrustful peoples are each tempted to inflict a preemptive strike to avoid being invaded for gain. And a system of laws that defines infractions and penalties and metes them out disinterestedly can obviate the need for a hair trigger for retaliation and the accompanying culture of honor. People can rest assured that someone *else* will impose disincentives on their enemies, making it unnecessary for them to maintain a belligerent stance to prove they are not punching bags. And having a third party measure the infractions and the punishments circumvents the hazard of self-deception, which ordinarily convinces those on each side that they have suffered the greater number of offenses. These advantages of third-party intercession can also come from nongovernmental methods of conflict resolution, in which mediators try to help the hostile parties negotiate an agreement or arbitrators render a verdict but cannot enforce it.[92] The problem with these toothless measures is that the parties can always walk away when the outcome doesn't come out the way they want.

Adjudication by an armed authority appears to be the most effective general violence-reduction technique ever invented. Though we debate whether tweaks in criminal policy, such as executing murderers versus locking them up for life, can reduce violence by a few percentage points, there can be no debate on the massive effects of having a criminal justice system as opposed to living in anarchy. The shockingly high homicide rates of pre-state societies, with 10 to 60 percent of the men dying at the hands of other men, provide one kind of evidence.[93] Another is the emergence of a violent culture of honor in just about any corner of the world that is beyond the reach of the law.[94] Many historians argue that people acquiesced to centralized authorities during the Middle Ages and other periods to relieve themselves of the burden of having to retaliate against those who would harm them and their kin.[95] And the growth of those authorities may explain the *hundredfold* decline in homicide rates in European societies since the Middle Ages.[96] The United States saw a dramatic reduction in urban crime rates from the first half of the nineteenth century to the second half, which coincided with the formation of professional police forces in the cities.[97] The causes of the decline in American crime in the 1990s are controversial and probably multifarious, but many criminologists trace it in part to more intensive community policing and higher incarceration rates of violent criminals.[98]

The inverse is true as well. When law enforcement vanishes, all manner of violence breaks out: looting, settling old scores, ethnic cleansing, and petty warfare among gangs, warlords, and mafias. This was obvious in the remnants of Yugoslavia, the Soviet Union, and parts of Africa in the 1990s, but can also happen in countries with a long tradition of civility. As a young teenager in proudly peaceable Canada during the romantic 1960s, I was a true believer in Bakunin's anarchism. I laughed off my parents' argument that if the government ever laid down its arms all hell would break loose. Our competing predictions were put to the test at 8:00 a.m. on October 17, 1969, when the Montreal police went on strike. By 11:20 a.m. the first bank was robbed. By noon most downtown stores had closed because of looting. Within a few more hours, taxi drivers burned down the garage of a limousine service that had competed with them for airport customers, a rooftop sniper killed a provincial police officer, rioters broke into several hotels and restaurants, and a doctor slew a burglar in his suburban home. By the end of the day, six banks had been robbed, a hundred shops had been looted, twelve fires had been set, forty carloads of storefront glass had been broken, and three million dollars in property damage had been inflicted, before city authorities had to call in the army and, of course, the Mounties to restore order.[99] This decisive empirical test left my politics in tatters (and offered a foretaste of life as a scientist).

The generalization that anarchy in the sense of a lack of government leads to anarchy in the sense of violent chaos may seem banal, but it is often overlooked in today's still-romantic climate. Government in general is anathema to many conservatives, and the police and prison system are anathema to many liberals. Many people on the left, citing uncertainty about the deterrent value of capital punishment compared to life imprisonment, maintain that deterrence is not effective in general. And many oppose more effective policing of inner-city neighborhoods, even though it may be the most effective way for their decent inhabitants to abjure the code of the streets. Certainly we must combat the racial inequities that put too many African American men in prison, but as the legal scholar Randall Kennedy has argued, we must also combat the racial inequities that leave too many African Americans exposed to ' criminals.[100] Many on the right oppose decriminalizing drugs, prostitution, and gambling without factoring in the costs of the zones of anarchy that, by their own free-market logic, are inevitably spawned by prohibition policies. When demand for a commodity is high, suppliers will materialize, and if they cannot protect their property rights by calling the police, they will do so with a violent culture of honor. (This is distinct from the moral argument that our current drug policies incarcerate multitudes of nonviolent people.) School-children are currently fed the disinformation that Native Americans and other peoples in pre-state societies were inherently peaceable, leaving them uncom-

prehending, indeed contemptuous, of one of our species' greatest inventions, democratic government and the rule of law.

Where Hobbes fell short was in dealing with the problem of policing the police. In his view, civil war was such a calamity that any government— monarchy, aristocracy, or democracy— was preferable to it. He did not seem to appreciate that in practice a leviathan would not be an otherworldly sea monster but a human being or group of them, complete with the deadly sins of greed, mistrust, and honor. (As we saw in the preceding chapter, this became the obsession of the heirs of Hobbes who framed the American Constitution.) Armed men are always a menace, so police who are not under tight democratic control can be a far worse calamity than the crime and feuding that go on without them. In the twentieth century, according to the political scientist R. J. Rummel in *Death by Government,* 170 million people were killed by their own governments. Nor is murder-by-government a relic of the tyrannies of the middle of the century. The World Conflict List for the year 2000 reported:

> *The stupidest conflict in this year's count is Cameroon.* Early in the year, Cameroon was experiencing widespread problems with violent crime. The government responded to this crisis by creating and arming militias and paramilitary groups to stamp out the crime extrajudicially. Now, while violent crime has fallen, the militias and paramilitaries have created far more chaos and death than crime ever would have. Indeed, as the year wore on mass graves were discovered that were tied to the paramilitary groups.[101]

The pattern is familiar from other regions of the world (including our own) and shows that civil libertarians' concern about abusive police practices is an indispensable counterweight to the monopoly on violence we grant the state.

Democratic leviathans have proven to be an effective antiviolence measure, but they leave much to be desired. Because they fight violence with violence or the threat of violence, they can be a danger themselves. And it would be far better if we could find a way to get people to abjure violence to begin with rather than punishing them after the fact. Worst of all, no one has yet figured out how to set up a worldwide democratic leviathan that would penalize the aggressive competition, defuse the Hobbesian traps, and eliminate the cultures of honor that hold between the most dangerous perpetrators of violence of all, nation-states. As Kant noted, "The depravity of human nature is displayed without disguise in the unrestricted relations which obtain between the various nations."[102] The great question is how to get people and nations to repudiate violence from the start, preempting escalations of hostility before they can take off.

In the 1960s it all seemed so simple. War is unhealthy for children and other living things. What if they gave a war and nobody came? War: What is it good for? Absolutely nothing! The problem with these sentiments is that the other side has to feel the same way at the same time. In 1939 Neville Chamberlain offered his own antiwar slogan, "Peace in our time." It was followed by a world war and a holocaust, because his adversary did not agree that war is good for absolutely nothing. Chamberlain's successor, Churchill, explained why peace is not a simple matter of unilateral pacifism: "Nothing is worse than war? Dishonor is worse than war. Slavery is worse than war." A popular bumper sticker captures a related sentiment: if you want peace, work for justice. The problem is that what one side sees as honor and justice the other side may see as dishonor and injustice. Also, "honor" can be a laudable willingness to defend life and liberty, but it can also be a reckless refusal to de-escalate.

Sometimes all sides really do see that they would be better off beating their swords into plowshares. Scholars such as John Keegan and Donald Horowitz have noted a general decline in the taste for violence as a means of settling disputes within most Western democracies in the last half-century.[103] Civil wars, corporal and capital punishment, deadly ethnic riots, and foreign

wars requiring face-to-face killing have declined or vanished. And as I have mentioned, though some decades in recent centuries have been more violent than others, the overall trend in crime has been downward.

One possible reason is the cosmopolitan forces that work to expand people's moral circle. Another may be the long-term effects of living with a leviathan. Today's civility in Europe, after all, followed centuries of beheadings and public hangings and exiles to penal colonies. And Canada may be more peaceable than its neighbor in part because its government outraced its people to the land. Unlike the United States, where settlers fanned out over a vast two-dimensional landscape with innumerable nooks and crannies, the habitable portion of Canada is a one-dimensional ribbon along the American border without remote frontiers and enclaves in which cultures of honor could fester. According to the Canadian studies scholar Desmond Morton, "Our west expanded in an orderly, peaceful fashion, with the police arriving before the settlers."[04]

But people can become less truculent without the external incentives of dollars and cents or governmental brute force. People all over the world have reflected on the futility of violence (at least when they are evenly enough matched with their adversaries that no one can prevail). A New Guinean native laments, "War is bad and nobody likes it. Sweet potatoes disappear, pigs disappear, fields deteriorate, and many relatives and friends get killed. But one cannot help it."[105] Chagnon reports that some Yanomamo men reflect on the futility of their feuds and a few make it known that they will have nothing to do with raiding.[106] In such cases it can become clear that both sides would come out ahead by splitting the differences between them rather than continuing to fight over them. During the trench warfare of World War I, weary British and German soldiers would probe each other's hostile intent with momentary respites in shelling. If the other side responded with a respite in kind, long periods of unofficial peace broke out beneath the notice of their bellicose commanders.[107] As a British soldier said, "We don't want to kill you, and you don't want to kill us, so why shoot?"[108]

The most consequential episode in which belligerents sought a way to release their deadly embrace was the Cuban Missile Crisis of 1962, when the United States discovered Soviet nuclear missiles in Cuba and demanded that they be removed. Khrushchev and Kennedy were both reminded of the human costs of the nuclear brink they were approaching, Khrushchev by memories of two world wars fought on his soil, Kennedy by a graphic briefing of the aftermath of an atomic bomb. And each understood they were in a Hobbesian trap. Kennedy had just read *The Guns of August* and saw how the leaders of great nations could blunder into a pointless war. Khrushchev wrote to Kennedy:

> You and I should not now pull on the ends of the rope in which you have tied a knot of war, because the harder you and I pull, the tighter this knot will become. And a time may come when this knot is tied so tight that the person who tied it is no longer capable of untying it, and then the knot will have to be cut.[109]

By identifying the trap, they could formulate a shared goal of escaping it. In the teeth of opposition from many of their advisers and large sectors of their publics, both made concessions that averted a catastrophe.

The problem with violence, then, is that the advantages of deploying it or renouncing it depend on what the other side does. Such scenarios are the province of game theory, and game theorists have shown that the best decision for each player individually is sometimes the worst decision for both collectively. The most famous example is the Prisoner's Dilemma, in which partners in crime are held in separate cells. Each is promised freedom if he is the first to implicate his partner (who then will get a harsh sentence), a light sentence if neither implicates the other, and a moderate sentence if each implicates the other. The optimal strategy for each prisoner is to defect from their partnership, but when both do so they end up with a worse

outcome than if each stayed loyal. Yet neither can stay loyal out of fear that his partner might defect and leave him with the worst outcome of all. The Prisoner's Dilemma is similar to the pacifist's dilemma: what is good for one (belligerence) is bad for both, but what is good for both (pacifism) is unattainable when neither can be sure the other is opting for it.

The only way to win a Prisoner's Dilemma is to change the rules or find a way out of the game. The World War I soldiers changed the rules in a way that has been much discussed in evolutionary psychology: play it repeatedly and apply a strategy of reciprocity, remembering the other player's last action and repaying him in kind.[110] But in many antagonistic encounters that is not an option, because when the other player defects he can destroy you—or, in the case of the Cuban Missile Crisis, destroy the world. In that case the players had to recognize they were in a futile game and mutually decide to get out of it.

Glover draws an important conclusion about how the cognitive component of human nature might allow us to reduce violence even when it appears to be a rational strategy at the time:

> Sometimes, apparently rational self-interested strategies turn out (as in the prisoners' dilemma...) to be self-defeating. This may look like a defeat for rationality, but it is not. Rationality is saved by its own open-endedness. If a strategy of following accepted rules of rationality is sometimes self-defeating, this is not the end. We revise the rules to take account of this, so producing a higher-order rational strategy. This in turn may fail, but again we go up a level. At whatever level we fail, there is always the process of standing back and going up a further level.[111]

The process of "standing back and going up a further level" might be necessary to overcome the emotional impediments to peace as well as the intellectual ones. Diplomatic peacemakers try to hurry along the epiphanies that prompt adversaries to extricate themselves from a deadly game. They try to blunt competition by carefully fashioning compromises over the disputed resources. They try to defuse Hobbesian traps via "confidence-building measures" such as making military activities transparent and bringing in third parties as guarantors. And they try to bring the two sides into each other's moral circles by facilitating trade, cultural exchanges, and people-to-people activities.

This is fine as far as it goes, but the diplomats are sometimes frustrated that at the end of the day the two sides seem to hate each other as much as they did at the beginning. They continue to demonize their opponents, warp the facts, and denounce the conciliators on their own side as traitors. Milton J. Wilkinson, a diplomat who failed to get the Greeks and Turks to bury the hatchet over Cyprus, suggests that peacemakers must understand the emotional faculties of adversaries and not just neutralize the current rational incentives. The best-laid plans of peacemakers are often derailed by the adversaries' ethnocentrism, sense of honor, moralization, and self-deception.[112] These mindsets evolved to deal with hostilities in the ancestral past, and we must bring them into the open if we are to work around them in the present.

An emphasis on the open-endedness of human rationality resonates with the finding from cognitive science that the mind is a combinatorial, recursive system.[113] Not only do we have thoughts, but we have thoughts about our thoughts, and thoughts about our thoughts about our thoughts. The advances in human conflict resolution we have encountered in this chapter—submitting to the rule of law, figuring out a way for both sides to back down without losing face, acknowledging the possibility of one's own self-deception, accepting the equivalence of one's own interests and other people's—depend on this ability.

Many intellectuals have averted their gaze from the evolutionary logic of violence, fearing that acknowledging it is tantamount to accepting it or even to approving it. Instead they have pursued the comforting delusion of the Noble Savage, in which violence is an arbitrary product of learning or a pathogen that bores into us from the outside. But denying the logic of violence

makes it easy to forget how readily violence can flare up, and ignoring the parts of the mind that ignite violence makes it easy to overlook the parts that can extinguish it. With violence, as with so many other concerns, human nature is the problem, but human nature is also the solution.

Notes

Chapter 17: Violence

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