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Decline of Violence: Taming the Devil Within Us

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In Defense of Reason

Believe it or not, says **Steven Pinker**, we are getting smarter – and, as a direct result, less violent.

The claim that "the twentieth century was the bloodiest in history" is popular among the romantic, the religious, the nostalgic, and the cynical, who use it to indict a range of ideas that flourished in that century, including science, reason, secularism, Darwinism, and the ideal of progress. But this historical factoid is rarely backed up by numbers, and it is almost certainly an illusion. We are prone to think that modern life is more violent because historical records are more complete from recent eras, and the human mind overestimates the frequency of vivid, memorable events. We also *care* more about violence today. Ancient histories are filled with glorious conquests that today would be classified as genocide, and the emperors known to history as So-and-So The Great would today be prosecuted as war criminals.

Attempts to quantify the death tolls from earlier centuries suggest that many of their collapsing empires, conquering maniacs, horse tribe invasions, slave trades, and annihilation of native peoples had death tolls which, adjusted for population, are comparable to those of the two world wars.[1,2] [See my email to Alison] War before civilization was even bloodier. Forensic archeology and ethnographic demography suggest that around fifteen percent of people living in nonstate societies died violently—five times the proportion of violent deaths in the 20th century from war, genocide, and man-made famines combined.

Moreover, a century has a hundred years, not just fifty, and the second half of the twentieth has astonished military historians with its unprecedented avoidance of wars between developed states and great powers.[3] Civil wars, to be sure, proliferated in the postwar years, but civil wars tend to be less destructive than interstate wars, and they, too, have declined in numbers and in death tolls. Quantitative peace researchers count far fewer deaths in warfare in the first decades of the 21st century than in the decades preceding it.[4]

The obsolescence of major war is just one of many historical declines of violence. European homicide rates have declined at least thirtyfold since the Middle Ages.[5] Barbaric customs that were unexceptionable for millennia, such as human sacrifice, the persecution of witches and heretics, chattel slavery, blood sports, punitive torture and mutilation, sadistic executions (burning, breaking, crucifixion, disemboweling, impalement), and execution for victimless crimes have been abolished in most of the world. The past fifty years have seen a cascade of rights revolutions—civil, women's, children's, gay, animal—which have demonstrably driven down rates of lynching, pogroms, rape, spousal abuse, child abuse, spanking, gay-bashing, hunting, and callousness to laboratory animals.

The historical decline of violence is a challenging scientific puzzle for anyone interested in human nature. Violence is surely not just a cultural fad that is falling out of fashion, like bustles and spats. Violence is found throughout the history and prehistory of our

species, and shows no signs of having been invented in one place and spread to the others. The human brain has conserved mammalian circuits for rage and dominance, and boys universally play-fight. A majority of adults have homicidal fantasies and enjoy violent entertainment, and variation in violent tendencies across individuals is substantially heritable.[6]

At the same time, not a single category of violence has been pinned to a fixed rate over the course of history. Whatever causes violence, it is not a perennial urge like hunger, sex, or sleep.

So what has gone right? Little if any of the decline of violence can be explained by natural selection. Biological evolution has a speed limit measured in generations, and many of the declines have unfolded over decades or years.

The most promising explanation, I believe, is that the components of the human mind that inhibit violence—what Abraham Lincoln called "the better angels of our nature"—have become increasingly engaged.

Today, the most famous of the better angels is empathy. It's being studied in children, chimpanzees, undergraduates, and even single neurons, and has been lauded in bestselling books as the solution to humanity's problems. Indeed, an expansion of empathy -- fostered by literacy, travel, and cosmopolitanism -- helps explain why people today abjure cruel punishments and care more about the human costs of war.

But empathy cannot be the whole story. Contrary to the popular notion that mirror neurons make primates reflexively empathic, empathy is a fickle emotion. It is triggered by cuteness, good looks, kinship, friendship, similarity, and solidarity.[7] And it is easily shut off or converted to its opposite, schadenfreude, by competition or revenge.[8]

The moral sense, [No, it has to be "the moral sense"—see my email of 9/3/11] another hot research topic in psychology, also is less peaceable than one might think. No society defines virtue solely by the avoidance of harm. Moral intuitions also emerge from concerns such as betraying a coalition, contaminating oneself or one's community, and defying or insulting an authority.[9] Since people feel that moral infractions are legitimately punishable, an expansive definition of morality provides an expansive list of offenses for which the sinner can be violently punished, such as homosexuality, licentiousness, blasphemy, heresy, indecency, and desecration of sacred symbols. Indeed, since morality furnishes people with motives for violent acts that bring them no tangible benefit, it is more often the problem than the solution. If you added up all the homicides committed in pursuit of rough justice, the casualties of religious and revolutionary wars, the people executed for victimless crimes, and the eggs broken in genocides to make utopian omelets, they would surely outnumber the fatalities from amoral predation and conquest.

The Best Angel?

The most important psychological contributor to the decline of violence over the long term may instead be *reason*: the cognitive faculties, honed by the exchange of ideas though language, which allow us to understand the world and negotiate social arrangements.

Reason, admittedly, appears to have fallen on hard times. Popular culture is plumbing new depths of dumbth, and American political discourse has become a race to the bottom. We are living in an era of scientific creationism, New Age flimflam, 9/11 conspiracy theories, and psychic hotlines.

Even scientists are piling on. Human beings are led by their passions, say many psychologists, and deploy reason only to rationalize gut feelings after the fact. Behavioral economists exult in showing how human behavior departs from the rational-actor theory, and sympathetic journalists waste no opportunity to smack the theory around. The implication is that since irrationality is inevitable, we may as well lie back and enjoy it.

But I have come to believe that both the pessimistic assessment of the state of reason in the world, and any sentiment that this would not be such a bad thing, are mistaken. For all their foolishness, modern societies have been getting smarter, and all things being equal, a smarter world is a less violent world.

Why might reason lead to less violence? The most obvious pathway is captured in Voltaire's quip that "those who can make you believe absurdities can make you commit atrocities." A debunking of hogwash—such as the notions that gods demand sacrifices, witches cast spells, heretics go to hell, Jews poison wells, animals are insensate, African are brutish, and kings rule by divine right—will undermine many rationales for violence.

Reason can also lead people to *want* less violence. This may seem to violate Hume's dictum that "reason is, and ought to be, only the slave of the passions." Reason, by itself, can lay out a road map to peace or to war, to tolerance or to persecution, depending on what the reasoner [***Microsoft Word keeps correcting "reasoned" to "reasoned"! Please be sure that it stays as "reasoner."] wants.

But two conditions will tend to align reason with nonviolence. The first is that reasoners care about their own well-being: they prefer to live rather than die, keep their body parts intact, and spend their days in comfort rather than in pain. Logic does not force them to have those prejudices. Yet any product of natural selection—indeed, any agent that has endured the ravages of entropy long enough to be reasoning in the first place—is likely to have them.

The second condition is that reasoners be part of a community of agents who can impinge on their well-being and who can comprehend each other's reasoning. And indeed *Homo sapiens* not just a rational animal but a social and language-using one. Self-interest and sociality combine with reason to lay out a morality in which nonviolence is a goal. If one agent says, "It's bad for you to hurt me," he's committed to "It's bad for me to hurt you," since logic cannot tell the difference between "me" and "you." Therefore as soon

as you try to persuade someone to avoid harming you by appealing to *reasons* why he shouldn't, you're sucked into a commitment to the avoidance of harm as a general goal.

Humans, of course, were not created in a state of Original Reason. We descended from apes, spent hundreds of millennia in small bands, and evolved our cognitive processes in the service of foraging and socializing. Only gradually, with the appearance of literacy, cities, and long-distance travel and communication, could our ancestors cultivate their reason and apply it to a broader range of concerns. As collective rationality is honed over the ages, it will progressively whittle away at short-sighted and hot-blooded impulses toward violence, and force us to treat a greater number of agents as we would have them treat us.

To be sure, it remains puzzling that it took us so long to figure this out. Why did human rationality need thousands of years to conclude that something might be a wee bit wrong with slavery? Or with beating children, raping unattached women, exterminating native peoples, imprisoning homosexuals, or waging wars to assuage the injured vanity of kings?

Perhaps humans have been getting nicer because they have been getting smarter.

A Positive Trend

In the early 1980s, the philosopher James Flynn had a Eureka! moment when he noticed that the companies that sell IQ tests periodically renorm the scores.[i] Later generations, given the same set of questions as earlier ones, got more of them correct. Flynn scoured the world for test scores, and the result was the same in every sample: IQ scores had increased throughout the 20th century, everywhere. [10] An average teenager today, if he or she could time-travel back to 1910, would have had an IQ of 130, and typical person of 1910, if time-transported forward to the present, would have a mean IQ of 70. [OK if there is space, but if we're crunched, please delete this and revert back to my pgh of Oct. 1. I have a slight preference for deleting it and just using the Oct 1 summary pgh, but I'm ok with this version of you think it adds vividness.]

The increase is not in general intelligence, the heritable factor which underlies all the components of intelligence (vocabulary, arithmetic, knowledge, etc.). It is concentrated in abstract reasoning, such as similarities ("What do a pound and an inch have in common?") and analogies ("BIRD is to EGG as TREE is to what?"). The most likely causes are increases in the duration and quality of schooling, the spread of symbol-manipulation into work and leisure, and the trickling down of scientific and analytic reasoning into everyday life.

Could an expansion of reasoning really have driven down violence? Consider the statements of the great men of a century ago, such as Theodore Roosevelt, who wrote that "in nine out of ten cases … the only good Indians are the dead Indians," or the young Winston Churchill, who commanded brutal imperial wars in Asia and wrote, "I hate Indians. They are a beastly people with a beastly religion." Today we are stunned by the

compartmentalized morality of these men, who in many ways were enlightened when it came to their own race. Yet they never took the mental leap that would have encouraged them to treat other races with the same consideration. Today's children have been encouraged to take these cognitive leaps with gentle instruction such as "You can't tell whether a person is good or bad by looking at the color of his skin. There are bad Indians and there are good Indians, just like there are bad white people and good white people." and "Yes, the things those people do look funny to us. But the things we do look funny to them." Such lessons are not indoctrination but guided reasoning, leading children to conclusions they can accept by their own lights, and the resulting understanding has become second nature.

Is there any evidence that enhancements in thinking can make us less violent? Cognitive neuroscience suggests that morality is driven not just by the limbic circuits underlying emotion but also by parts of the prefrontal cortex that underlie abstract thought.[11] And the historical record shows many humane advances were initiated in the realm of ideas. Philosophers prepared careful briefs against slavery, despotism, torture, religious persecution, cruelty to animals, harshness to children, violence against women, and frivolous wars. These arguments were disseminated in viral pamphlets and bestsellers and debated in salons and pubs, and then in conventions and legislatures which implemented reforms.[12]

There are also more direct links between reason and peace. On average, and holding all else constant, people with greater reasoning abilities commit fewer violent crimes, are more likely to cooperate in experimental games, and have more classically liberal attitudes, such as opposition to racism and sexism.[13-15] Worldwide, societies with higher levels of educational and intellectual achievement are more receptive to democracy, and have lower rates of civil war.[16,17]

Advocates of reason and its gifts, such as science, technology, and secular democracy, should no longer feel that they must be on the defensive. The association between the best and the worst of the 20th century was always crude, and it is time to reexamine it in the light of statistically literate history. Almost seven decades after the horrors of the first half of the 20th century, we now see that they were not a new normal or harbingers of worse to come, but a local high from which the world would bumpily descend. The ideologies behind them were not woven into modernity but atavisms that ended up in the dustbin of history, and the ideal of universal human rights, which would have seemed saccharine or incoherent to our ancestors, has become the moral commonplace of our age.

The forces of reason have not, of course, pushed steadily in one direction; nor will they ever bring about utopia. But reason has done more than benefit our health, experience, and knowledge—it has, quantifiably, made the world a less violent place.

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