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The Decline of War and Conceptions of Human Nature

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Abstract: Many observers are skeptical of the evidence that war has declined, because they think that a decline in war requires an unrealistic, romantic theory of human nature. In fact it is compatible with a hardheaded view of human violent inclinations which is firmly rooted in evolutionary biology. *Homo sapiens* evolved with violent tendencies, but they are triggered by particular circumstances; they are not a hydraulic urge that must periodically be discharged. And though our species evolved with motives that can erupt in violence, it also evolved motives that can inhibit violence, including self-control, empathy, a sense of fairness, and open-ended cognitive mechanisms that can devise technologies for reducing violence.

The Decline of War and Conceptions of Human Nature

War appears to be in decline. In the two-thirds of a century since the end of World War II, the great powers, and developed states in general, have rarely faced each other on the battlefield, a historically unprecedented state of affairs (Gaddis, 1989; Gat, 2006; Gleditsch, 2008; Holsti, 1986; Howard, 1991; Jervis, 1988; Keegan, 1993; Luard, 1988; Mueller, 1989, 2004, 2009; Payne, 2004; Ray, 1989); see Pinker (2011), chapter 5, for a review). Contrary to expert predictions, the United States and the Soviet Union did not launch World War III, nor have any of the great powers fought each other since the end of the Korean War in 1953. After a six-hundred year stretch in which Western European countries started two new wars a year, they haven't started one since 1945. Nor have the forty or so richest nations anywhere in the world engaged each other in armed conflict.

In another pleasant surprise, since the end of the Cold War in 1989, wars of all kinds have declined throughout the world (Gleditsch, 2008; Goldstein, 2011; Human_Security_Centre, 2005; Human_Security_Report_Project, 2007, 2009, 2011; Lacina, Russett, & Gleditsch, 2005); see (Pinker, 2011), chapter 6, for a review). Wars between states have become extremely rare, and civil wars, after increasing in number from the 1960s through the 1990s, have declined in number. The worldwide rate of death from interstate and civil war combined has juddered downward as well, from almost 300 per 100,000 world population during World War II, to almost 30 during the Korean War, to the low teens during the era of the Vietnam War, to single digits in the 1970s and 1980s, to less than 1 in the 21st century.

How seriously should we take the evidence for a decline in war? Is it a statistical fluke, a gambler's lucky streak which is sure to run out? Is it an artifact of the way that wars and their human costs are counted? Is it a temporary lull in an inexorable cycle—the calm before the storm, the San Andreas Fault before the Big One, an overgrown forest awaiting the first careless toss of a lit cigarette?

No one can answer these questions with certainty. Some of the articles in this issue address them by analyzing the statistical patterning of wars, the norms and attitudes of leaders and populaces, and the tripwires and safety catches of the international system today. In this article, I'll address it with a different relevant knowledge base: the nature of human nature.

Many observers are skeptical that war could possibly be in decline because, they say, human nature has not changed, and so we continue to harbor the innate inclinations to violence that caused the incessant warring in our history. The evidence for innate aggressive tendencies is plentiful enough: we see it in the ubiquity of aggression among primates and in the universality of violence in human societies, including homicide, rape, domestic violence, rioting, raiding, and feuding. Moreover, there is good reason to believe that certain genes, hormones, brain circuits, and selective pressures militated toward violence as our species evolved (see Pinker, 2011, chapters 2, 8, and 9 for reviews). In just the two generations that have grown to adulthood since 1945, those pressures could not have gone into reverse and undone the results of several million years of hominid evolution. Since our biological impulses toward war have not gone away, any interlude of peace is bound to be temporary. Those who believe that the decline of war is anything but an artifact or a lucky streak are often accused of being romantics, idealists, utopians. In response, a few Rousseauans have veered toward accepting the accusation by denying that human nature has impulses toward violence in the first place—we are, they say, naked bonobos (the so-called hippie chimps), suffused with oxytocin and equipped with empathy neurons that naturally incline us toward peace.

I don't believe we are hippie chimps, but I also believe that the decline in war is real. As someone who is on record as being a Hobbesian realist, I am particularly suited to argue that a decline in war is compatible with a nonromantic of human nature. In *The Blank Slate* (Pinker, 2002) I argued that our brains have been shaped by natural selection to include, among other traits, greed, fear, revenge, rage, machismo, tribalism, and self-deception, which alone and in combination can incite our species to

violence. Yet I will argue that this jaded view of human nature is perfectly compatible with interpreting the decline of war as a real and possibly enduring development in human history.

Four Reasons Why the Decline of War is Compatible with a Realistic Conception of Human Nature

1. Stranger Things Have Happened. A decline in the rate—and in some cases the existence—of a particular category of violence is by no means unusual in human history. My book *The Better Angels of Our Nature* (Pinker, 2011), and James Payne's *A History of Force* (Payne, 2004), document dozens of them. Here are some examples:

- Anarchic tribal societies had rates of death in warfare that were probably five times those in early settled states.
- Human sacrifice was a regular practice in every early civilization, and now has vanished.
- Between the Middle Ages and the 20th century, rates of homicide in Europe fell at least thirty-five-fold.
- In a Humanitarian Revolution centered in the second half of the 18th century, every major Western country abolished the use of torture as a form of criminal punishment.
- European countries used to have hundreds of capital crimes on the books, including trivial offenses such as stealing a cabbage and criticizing the royal garden. Beginning in the 18th century, capital punishment began to be reserved for treason and the most severe violent crimes, and in the 20th century it was abolished by every Western democracy except the United States. Even in the United States, seventeen of the fifty states have abolished capital punishment, and in the remaining ones the per capita rate of executions is a tiny fraction of what it was in colonial times.
- Chattel slavery was once legal everywhere on earth, but the 18th century launched a wave of abolitions that swept over the world, culminating in 1980 when slavery was abolished in Mauritania.
- Also abolished in the Humanitarian Revolutio were witch hunts, religious persecution, dueling, blood sports, and debtors' prisons.
- Lynchings of African Americans used to take place at a rate of 150 a year. During the first half of the 20th century, the rate fell to zero.
- Corporal punishment of children, both institutionalized paddling and whipping in schools, and spanking and smacking in households, has been in sharp decline in most Western countries, and has been made illegal in several in Western European countries.
- Rates of homicide, rape, domestic violence, child abuse, and hate crimes have declined dramatically (in some cases by as much as eighty percent) since the 1970s.

Given these documented declines in violence, it's pointless to argue whether human nature allows rates of violence to change. Clearly it does; the only question is how.

2. Human nature has multiple components. People tend to reduce human nature to a single essence, and then debate what that essence consists of. Are we nasty or noble, Hobbesian or Rousseauan, angel or ape? In this way of thinking, if we regularly engage in violence, we must be a violent species; if we are capable of peace, we must be pacifistic.

But the brain is a mind-bogglingly complex organ with many anatomically and chemically distinguishable circuits. Most psychologists believe that human nature is not just one thing, but comprises multiple intelligences, modules, faculties, organs, drives, or other subystems. Some of these subsystems may impel us toward violence, but others inhibit us from violence.

Human violence springs from at least four kinds of motives, each involving different neurobiological systems:

- *Exploitation:* Violence used as the means to an end; that is, damage to a human who happens to be an obstacle on the path to something the actor wants. Examples include plunder, rape, conquest, the displacement or genocide of native peoples, and the murder or imprisonment of political or economic rivals.

- *Dominance:* The urge among individuals to ascend the pecking order and become the alpha male, and the corresponding urge among groups for tribal, ethnic, racial, national, or religious supremacy.

- *Revenge:* The conviction that someone who has committed a moral infraction deserves to be punished.

- *Ideology:* Shared belief systems, spread virally or by indoctrination or force, which hold out the prospect of a utopia. Examples include nationalism, Fascism, Nazism, communism, and militant religions. Since a utopia is a world that will be infinitely good forever, one is permitted to perpetrate unlimited amounts of force against those who stand in its way, as in the saying, "You can't make an omelet without breaking a few eggs."

Pushing against these nasty impulses are some of our kinder, gentler faculties:

- *Self-control:* Circuitry in the frontal lobes of the brain that can anticipate the long-term consequence of actions and inhibit them accordingly.

- *Empathy*: The ability to feel someone else's pain.

- *The moral sense:* A system of norms and taboos, centered on intuitions of fairness to individuals, loyalty to a community, deference to legitimate authority, and the safeguarding of purity and sanctity. The moral sense can motivate the imposition of standards of fairness, and can render certain courses of harmful action unthinkable. (Truth be told, it can also be a *cause* of violence, because it can rationalize militant ideologies based on tribalism, puritanism, and authoritarianism.)

- *Reason:* Cognitive processes that allow us to engage in objective, detached analysis.

Whether people actually commit acts of violence, then, depends on the interplay among these faculties; the mere existence of human nature does not doom our species to a constant rate of violence.

The decision to wage war, in particular, may be triggered by any combination of the violence-inducing motives. If the decision is not overturned by any of the motives that inhibit violence, the decision-maker must then mobilize an aggressive coalition by whipping up the aggressive motives in his compatriots, while disabling the peaceable motives. The actual outbreak of war thus depends on many psychological processes lining up in the right way, and escaping the restraining influence of other psychological processes, which are distributed in social networks connecting many other individuals. There is no reason to expect that the relative strengths of these competing influences should remain constant over the course of human history.

3. Many components of human nature are facultative (environmentally sensitive), not hydraulic (homeostatic). The intuition that a respite from war could not possibly be real often rests on a mental model in which the drive toward violence is conceived of as a hydraulic force. At best it can be diverted or channeled, but it cannot be bottled up indefinitely. The

hydraulic model of human motivation is deeply embedded in the way we think about violence. It was given a scientific imprimatur by psychoanalysis, ethology, and behaviorism (in the guise of drive reduction), and it fits with the cybernetic notion of homeostasis, in which a feedback loop maintains a system in a steady state by counteracting any imbalance. It also fits with our subjective experience: no one can go indefinitely without food, water, or sleep, and it's a challenge to do without sex or hold in a mounting urge to yawn, sneeze, scratch an itch, or expel various substances from the body.

But it's a big mistake to think that *all* human responses are homeostatic. Many are opportunistic, reactive, or facultative: they are elicited by combinations of environmental triggers and cognitive and emotional states. Consider evolutionarily prepared fears such as those of heights, snakes, confinement, deep water, or spiders. Even if one were born with an innate phobia of snakes, as long as one never encountered a snake one could live one's entire life without experiencing that fear. Other examples include the tendency to shiver, fall head over heels in love, or experience sexual jealousy.

The motives that lead to violence, too, need not be homeostatic. There is no reason to believe that the urge to hurt someone gradually builds up in a person and periodically needs to be discharged. Violence carries spectacular risks of injury or death when the target defends himself, when he or his relatives wreak revenge, and when he is tempted into attacking preemptively. The theory of natural selection predicts that adaptations evolve when their expected costs exceed their expected benefits. We should not expect a hydraulic urge to violence to evolve, but rather one that is highly sensitive to circumstances. These may include predation and exploitation, when an opportunity to exploit a victim at low risk presents itself; dominance, when one's masculinity is suddenly impugned in front of an important audience; vengeance, to punish (and thus ultimately deter) insults or injuries; rampage, when a longstanding threat is suddenly exposed in window of vulnerability. If the circumstances never materialize—say, if one lives an orderly, bourgeois life, free from grave threats or insults—any tendency to react with violence could lie as dormant as a fear of poisonous snakes. The same sensitivity to environmental contingencies could, if circumstances line up, prevent political leaders from experiencing any urge to mobilize their countries for war.

4. Human cognition is an open-ended generative system. Among the various psychological faculties that can inhibit us from violence, one is special: the cognitive apparatus which makes it possible for humans to reason. Reason is a combinatorial system that can generate an explosive number of distinct thoughts. Just as the tens of thousands of words in our vocabularies can be assembled by the rules of syntax into trillions of sentences, the even greater number of concepts in our mental repertoire can be assembled by cognitive processes into an unfathomably vast number of coherent thoughts ((Pinker, 1994, 1997, 1999). Within this space of humanly possible ideas lie the beliefs, myths, stories, religions, ideologies, superstitions, and intuitive and formal theories that emerge from our ruminations and propagate, via language, through our social networks, there to be further tweaked, revamped, and combined. Given the right social infrastructure—literacy, open debate, the mobility of people and ideas, a shared commitment to logical coherence and empirical testability—good science, deep mathematical truths, useful inventions can occasionally emerge from the chatter.

Just as our species has applied its cognitive powers to ward off the scourges of pestilence and famine, so it can apply them to manage the scourge of war. After all, though the spoils of war are always tempting, sooner or later people are bound to realize that victors and losers tend to change places in the long run, and so everyone would be better off if somehow everyone could simultaneously agree to lay their down their arms. The challenge is how to get the *other guy* to lay down his arms at the same time that you do, since unilateral pacifism leaves a society vulnerable to invasion by its still-warlike neighbors.

It requires no stretch of the imagination to suppose that human ingenuity and experience have gradually been brought to bear on this problem, just as they have chipped away at hunger and disease. Here are just a few of the products of human cognition that have disincentivized leaders and populations from plunging into war:

- Government, which reduces the temptation to launch an exploitative attack, since the punishment cancels out the anticipated gain. This in turn reduces the temptation of a potential target to launch a pre-emptive strikes against aggressors, to maintain a belligerent posture to deter them, or to wreak revenge on them after the fact.
- Limits on government, including the apparatus of democracy, so that governments don't perpetrate more violence on their citizens than they prevent.
- An infrastructure of commerce, which makes it cheaper to buy things than to plunder them, and which makes other people more valuable alive than dead.
- An international community which can propagate norms of nonviolent cooperation that are large-scale analogues of those that allow individual people to get along in their communities and workplaces.
- Intergovernmental organizations, which can encourage commerce, resolve disputes, keep belligerents apart, police infractions, and penalize aggression.
- Measured responses to aggression, including economic sanctions, quarantines, symbolic declarations, tactics of nonviolent resistance, and proportional counterstrikes as opposed to all-out retaliation.
- Reconciliation measures such as ceremonies, monuments, truth commissions, and formal apologies, which consolidate compromises among former enemies by mitigating their urge to settle every score.
- Humanistic counter-ideologies such as human rights, universal brotherhood, expanding empathy, and the demonization of war which can compete in the intellectual marketplace with nationalism, militarism, revanchism, and utopian ideologies.

These and other gadgets seem to have whittled down the probability that the constant frictions which characterize interactions among people will ignite into an actual war (Gleditsch, 2008; Goldstein, 2011; Human_Security_Report_Project, 2011; Long & Brecke, 2003; Mueller, 2004, 2010; Russett & Oneal, 2001). Many of these products of human ingenuity are invoked in the theories of the Liberal or Kantian peace, and the allusion to that Enlightenment thinker is appropriate. Like other political theorists from the Age of Reason and the Enlightenment such as Locke, Hume, and Spinoza, Kant theorized both about the conditions favoring nonviolence and the combinatorial mechanisms of human cognition. The combination of psychological and political interests is, I suggest, is no coincidence.

Conclusion. Only time will tell whether the decline of war is an enduring change in the human condition, rather than a transient lull or a statistical fluke. But I hope to have eliminated one source of skepticism that the decline could be real: the intuition that the violent side of human nature makes it impossible. Not only have other declines of violence indisputably taken place over the course of human history, but such declines are fully compatible with an unsentimental appreciation of the crooked timber of humanity. A modern conception of human nature, rooted in cognitive science and evolutionary psychology, suggests that our species, however flawed, has the means to curb its own mean streak. Human nature is not a single trait or uge but a complex system comprising many parts, including several mechanisms that can cause violence and several mechanisms that inhibit it. The mechanisms that cause violence, moreover, are not irresistible hydraulic forces but facultative reactions to particular circumstances, which can change over time. One of the mechanisms that inhibits violence is an open-ended combinatorial system capable of generating an infinite number of ideas. And among those ideas are institutions that can lessen the probability of war.

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