International Studies Review

International Studies Review (2013) **15**, 396–419

The Forum: The Decline of War[1]

Edited by Nils Petter Gleditsch
Centre for the Study of Civil War (CSCW), Peace Research Institute Oslo (PRIO)

Steven Pinker
Harvard University

Bradley A. Thayer
Utah State University

Jack S. Levy
Rutgers University

and

William R. Thompson
Indiana University

The debate on the waning of war has recently moved into higher gear. This forum contributes to that debate. Steven Pinker observes that a decline in war does not require a romantic theory of human nature. In fact, it is compatible with a hardheaded view of human violent inclinations, firmly rooted in evolutionary biology. Homo sapiens evolved with violent tendencies, but they are triggered by particular circumstances rather than a hydraulic urge that must periodically be discharged. And, although 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. Bradley Thayer argues that the decline of war thesis is flawed because the positive forces identified by these authors do not rule outside of the West or even fully inside of it. Their analysis also neglects the systemic causes of conflict and its insights for increasingly intense security competition between China and the United States. Jack Levy and William Thompson question some of the theoretical arguments advanced to explain the historical pattern of declining violence. They argue that cultural and ideational explanations for the decline in interstate war underestimate the extent to which those factors are endogenous to material and institutional variables. Arguments about the pacifying effects of the rise of the state and of commerce fail to recognize that in some historical contexts, those factors have contributed to the escalation of warfare. The introduction to the symposium outlines briefly some of the major issues: nature versus nurture, the reliability of the data, how broadly violence should be

[1]This symposium originated in a panel at the 54th Annual Convention of the International Studies Association, San Diego, CA, April 1–4, 2012. We are grateful to Azar Gat, discussant on the panel, for his comments. Useful suggestions were also offered by the journal's editor and referee. Gleditsch's work was supported by the Research Council of Norway.

Edited by Gleditsch, Nils Petter. (2013) The Decline of War. *International Studies Review*, doi: 10.1111/misr.12031

defined, whether there is more agreement on the phenomenon than on its causes, and finally whether the future will be like the past.

The Decline of War—The Main Issues

Nils Petter Gleditsch
Centre for the Study of Civil War (CSCW), Peace Research Institute Oslo (PRIO)

The Waning of War Debate

Although several authors have announced a "waning of war" in recent decades (notably Mueller 1989 and Payne 2004), this literature has moved into a higher gear with the recent spate of literature on this topic. Historians (Gat 2006, 2013; Muchembled 2012) and political scientists (Goldstein 2011) have entered the fray, along with a science journalist (Horgan 2012), a web designer (Richards 2010)—and, of course, a cognitive psychologist with a massive 800-page tome (Pinker 2011). Despite the breadth of this literature, this is not the end of the argument, but rather the start of a long debate, to which we hope to make a modest contribution with this forum. It includes a statement on human nature and violence (Pinker 2013) and continues with two contributions that are more skeptical to what has become known as the "declinist" literature (Levy and Thompson 2013; Thayer 2013). Here, I will attempt to summarize some of the main issues that have emerged in the debate so far.

Nature Versus Nurture

Given the extensive polemics against "the blank slate" in Pinker (2002), one might have expected that he would base his argument relating to violence strongly on changes in human nature. However, Pinker (2011, 2012) argues that human nature continues to hold a potential for violence as well as a potential for peace, and that environmental factors must be taken into account if we are to understand how we curb our tendency to resort to violence. Thayer (2013) agrees with this, although he argues that Pinker underestimates the difficulty in suppressing our inner demons.

Data

For the recent decline of war, Pinker, Goldstein, and others rely heavily on the UCDP/PRIO data (Gleditsch, Wallensteen, Sollenberg, Eriksson, and Strand 2002) and the PRIO battle deaths data (Lacina and Gleditsch 2005). These data are constantly being challenged. For instance, Obermeyer, Murray, and Gakidou (2008) argued that it is more appropriate to look at a broader set of war deaths, and that there is no evidence of a decline in war deaths over the past 50 years. Spagat, Mack, Cooper, and Kreutz (2009), however, found that to reach this conclusion, they had to ignore data for the periods after 1994 and before 1955, base their time trends on extrapolations from a biased convenience sample of only 13 countries, and rely on an estimated constant that is statistically insignificant. Gohdes and Price (2013) argue that while the PRIO battle deaths dataset currently offers the most comprehensive assembly of such data, the information used to establish the dataset is neither sufficient nor of appropriate quality to

offer a clear answer as to whether battle deaths have decreased or increased since the end of the Second World War. Lacina and Gleditsch (2013) respond that very strong assumptions must hold in order for measurement errors to explain the trend in battle deaths and conclude that the waning of war is real. This debate is not a sign of weakness. On the contrary, if the data can withstand multiple challenges, our confidence in the real nature of the trend can only increase. Of course, short-term changes like a half-dozen decrease in the number of ongoing armed conflicts in 2010 and a corresponding increase in 2011 (Themnér and Wallensteen 2012) reflect mainly how a number of conflicts hover around the threshold of 25 annual deaths. Such fluctuations should be ignored in the debate about the long-term waning of war.

What Kinds of Violence Should Be Included?

For a long time, the statistical study of war was focused almost exclusively on interstate war (Singer and Small 1972). While civil war had been the dominant form of conflict in terms of the number of ongoing conflicts since the 1950s, the cross-national study of civil war did not really take off until the late 1990s (Collier and Hoeffler 1998; Hegre, Ellingsen, Gates, and Gleditsch 2001; Fearon and Laitin 2003). Despite the high overlap of war and one-sided violence (genocide, politicide), these phenomena have generally been studied separately. Homicide has hardly been studied by conflict scholars. Payne (2004) and Pinker (2011) have broken with this tradition and offer a unified view of human violence, which is even broadened to include painful interrogation, physical punishment of children, and the like. In terms of the overall human propensity for violence, the wider approach seems justified—both one-sided violence and homicide kill more people than wars and civil wars. But, putting too many forms of violence into the same category runs the risk of undermining our ability to find causal explanations, although broad conceptualizations such as "motive versus opportunity" (Collier and Hoeffler 1998) run through the literatures on international war and civil war as well as crime. Levy and Thompson (2013), however, remain skeptical of our ability to come up with theoretical explanations that will capture the various forms of violence at the different levels of social organization.

Absolute Numbers or Rates?

A key point in the controversy in the waning of war literature is the use of relative rather than absolute numbers. While World War II certainly claimed more lives than any individual war in the nineteenth century and possibly more lives than in any human-induced disaster ever, its victims made up a smaller fraction of world population than several earlier conflicts. On this basis, the common characterization of the twentieth century as the world's most violent century becomes questionable (Gat 2013). This simple point invites opposition, even anger. The present writer was pointedly asked in a newspaper interview[2] whether a repetition of the Holocaust today would be a smaller crime because world population has more than doubled since that time. Most people would probably agree that the answer to this question is "no." On the other hand, the fact that we have not had two or more Holocausts in recent decades can still be seen as an indication of progress toward the reduction in violence. In any case, from World War II until today, the number of people killed in armed conflict and genocide has been in decline, whether you look at absolute or relative figures. More demanding is Thomas Pogge's critique—that human progress is less than

[2] *Klassekampen* (Oslo), 14 July 2012.

its potential.[3] It is certainly arguable that by 2013, we ought to have come further in our reduction in violence as a tool in human affairs. But, it would be hard indeed to establish a baseline over time for our potential to do so.

More Agreement on Phenomenon Than on Explanations

Despite the various critiques, there is wide agreement on the decline of war and other forms of violence. For instance, Levy and Thompson (2013) do not dispute the analyses of trends in war in Pinker (2011), and Thayer (2013) also finds that he "convincingly demonstrates" the decline in violence. However, the reasons for the decline are less clear. Thompson and Levy would "give a greater causal role to material than cultural factors," and Thayer finds that the cause (or causes) for the decline are less obvious than the decline itself and that "each major theory of international relation offers an explanation." In other words, there is not a lack of explanations, but we are unable to choose between alternative plausible theories. That there is greater agreement on the existence of a phenomenon than its explanation is not uncommon in the social science, as the literature on the interstate democratic peace illustrates (see for example, Schneider and Gleditsch 2013). Indeed, even in modern medicine, there is frequently greater agreement on the fact that something works than on why it works.[4]

Will the Future Be Like the Past?

Even if the trend toward a reduction in violence is accepted, that trend cannot necessarily be extrapolated into the future. Both Thayer and Levy and Thompson are skeptical of the declinist thesis for this reason. Thayer argues that there is a lack of "better angels" outside the West and that even the West may backslide. Moreover, he feels that Pinker underestimates the importance of the international system and the distribution of power. The rise of China is of particular concern. Levy and Thompson argue that a panel in 1912 could have extrapolated from current trends toward a decline of war, completely missing the factors that soon led to World War I.

While Thayer sees US primacy as a stabilizing force (and the challenge of China as a threat to the stability), almost the direct opposite view is found in "left" critiques of the declinist view. For instance, Herman and Peterson (2012) argue that world domination by the United States has led to a series of wars and worldwide repression that take the world in the wrong direction and which eventually must lead to a counter-reaction. Another skeptical school of thought is found in environmentalist writing about the destructive effects of environmental change in general and climate change in particular. Pundits and politicians have raised the specter of a warming world ridden by scarcity conflicts, but so far, there is little systematic evidence that points in this direction (Gleditsch 2012; Scheffran, Brzoska, Kominek, Link and Schilling 2012; Theisen, Gleditsch, and Buhaug 2013). A more optimistic note is struck by Hegre, Karlsen, Nygård, Strand, and Urdal (2013), who find that the factors robustly linked to civil war in the past (such as poverty, ethnic dominance, unfavorable neighborhood) are projected to decrease in the period 2010–2050, leading these authors to predict a halving of the proportion of the world's countries that have internal armed conflict.

[3]Interview in *Klassekampen* (Oslo), 24 July 2012; Pogge (2010).

[4]See, for instance, http://en.wikipedia.org/wiki/Aspirin. (Accessed January 29, 2013.)

The Decline of War and Conceptions of Human Nature

Steven Pinker
Harvard University

The Decline of War

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 (Holsti 1986; Jervis 1988; Luard 1988; Gaddis 1989; Mueller 1989, 2004, 2009; Ray 1989; Howard 1991; Keegan 1993; Payne 2004; Gat 2006; Gleditsch 2008; 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 600-year stretch in which Western European countries started two new wars a year, they have not started one since 1945. Nor have the 40 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 (Human Security Centre 2005; Lacina, Gleditsch, and Russett 2006; Human Security Report Project 2007; Gleditsch 2008; Goldstein 2011; Human Security Report Project 2011; 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 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 twenty-first 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 symposium 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 will address it with a different 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, according to this argument, 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. Indeed, a few Rousseauans have pretty much accepted this argument and have denied 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 do not believe we are hippie chimps, but I do 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 view 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 twentieth century, rates of homicide in Europe fell at least 35-fold.
- In a Humanitarian Revolution centered in the second half of the eighteenth 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 eighteenth century, capital punishment came to be reserved for treason and the most severe violent crimes, and in the twentieth century, it was abolished by every Western democracy except the United States. Even in the United States, 17 of the 50 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 eighteenth 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 revolution 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 twentieth 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 Western European countries.
- Rates of homicide, rape, domestic violence, child abuse, and hate crimes have declined dramatically (in some cases by as much as 80%) since the 1970s.

Given these documented declines in violence, it is 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, ape or angel? 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 subsystems. 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, damaging 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. (Unfortunately, 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. Facultative Components of Human Nature

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 is a challenge to do without sex or to hold in a mounting urge to yawn, sneeze, scratch an itch, or expel various substances from the body.

But, it is 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 and periodically needs to be discharged. Violence carries significant risks of injury or death when the target defends himself, when he or his relatives wreak revenge, or 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 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 menace is suddenly exposed in a 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 that 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, and 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, although 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, because 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 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, because the legal punishment cancels out the anticipated gain. This in turn reduces the temptation of a potential target to launch preemptive strikes against potential 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 do not 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 analogs 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 cognitive gadgets seem to have whittled down the probability that the constant frictions which characterize interactions among people will ignite into an actual war (Russett and Oneal 2001; Long and Brecke 2003; Mueller 2004, 2010; Gleditsch 2008; Goldstein 2011; Human Security Report Project 2011). 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, 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 urge but a complex system comprising many parts, including several mechanisms that 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 inhibit 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.

Humans, Not Angels: Reasons to Doubt the Decline of War Thesis

Bradley A. Thayer
Utah State University

The decline of war thesis, recently advanced by scholars such as Mueller (1989), Gat (2006), Goldstein (2011), and Pinker (2011), pivots on a centrally important empirical fact: There are fewer interstate wars of all types, small power versus small power, great power versus small power, and great power versus great power, in international politics than there had been in the previous period before World War II. The cause, or causes, of this fact is less obvious, although each major theory of international politics offers an explanation. Depending on the theoretical perspective, it may be due to the structure of the international system, the power of the United States, nuclear deterrence, strong institutions like the European Union, economic interdependence, or the triumph of good ideas.

In this literature, Pinker's book stands out as particularly perceptive and audacious. I will therefore focus on this work, although my argument applies to the

"declinist" literature more generally. Pinker's answer is that historical processes and good ideas have brought out the "better angels" of human nature. They have conquered the belligerent "inner demons" that have pushed or pulled humanity toward war, genocide, torture, and the other unfortunate and lamentably still common occurrences in international politics.

The proposed causes of the decline in violence are complex and multifold. Pinker identifies six historical trends: the transition from hunting to agriculture; the decline in the homicide rate; the rise of increasingly organized movements to stop socially sanctioned forms of violence; the end of wars between great powers after World War II, the Long Peace; "the New Peace" since the end of the Cold War with a decline in all forms of organized conflicts; and finally the growing revulsion against aggression on smaller scales, including violence against women, children, and animals.

In addition to these trends, Pinker identifies the tension, a balance of power if you will, in humanity between "inner demons" and "better angels." The inner demons considered by Pinker are: predatory or instrumental violence; dominance; revenge; sadism; and ideology. The better angels are: empathy; self-control; a moral sense; and reason.

The final component of his argument is that five historical forces that promote peaceable motives have changed the balance toward the better angels. These forces are the Leviathan, the growth of state power, particularly over the use of force; commerce, including exchange of ideas as well as trade; feminization, or respecting the interests and values of women; cosmopolitanism, promoted by literacy, mobility, and mass media that allow people to adopt other perspectives; and the escalator of reason, the application of knowledge and rationality to human affairs so that people recognize the futility of cycles of violence and to recast violence as a problem to be solved rather than a struggle to be won.

This is a significant argument backed by an impressive scholarship. Pinker convincingly demonstrates that there has been a dramatic decline in violence, and he is persuasive about many of the causes of that decline. For Pinker, the question is not whether you are better off today than you were 4 years ago, but rather 400 years ago, and the answer is a resounding: yes. Violence of all types has declined since the Middle Ages. This work is an excellent example of a consilient approach (Wilson 1998), drawing many different disciplines in the life and social sciences to make a compelling argument. To answer the question of why violence has declined, neither the life nor social sciences alone can fully suffice.

The declinist literature cuts against many of the orthodoxies of the age. For example, they argue that there is more peace now than ever before. Although the twentieth century was a bad one for conflict, our perception of the century is colored by presentism—the twentieth century is considered the worst because it is the most recent, and all of its horrors have been documented. Yet, when the violence of the twentieth century is considered within the context of the whole of human history, the expanded context compels the recognition that mass slaughter is common and proportionately worse than the violence of the last 100 years. Indeed, there never has been a Rousseauan "peaceful savage." The chance of our ancient hunter–gatherer ancestors meeting a bloody end was far higher than the likelihood of an American or European dying a violent death (Keeley 1996; Ghiglieri 1999; LeBlanc with Register 2003; Thayer 2004; Gat 2006).

At the same time, declinists are not modern Drs. Pangloss. While the ultimate conclusions concerning the decline of violence are positive, they recognize that the road can be, and often is, a rocky one. For example, Pinker is sensitive to the fact that some of his reasons for the decline of violence such as democratization—especially the process of democratization—may generate violence.

Two Reasons to Doubt the Decline of War Thesis

Although the declinist argument is strong, there is ample fodder for criticism. This literature is far stronger on the causes of the decline of domestic violence than on international violence. I would like to focus on international violence and make two major arguments here. First, the proposed revolution is partial; it has a fragile and incomplete existence outside the West and can be problematic even in the West. Second, I argue that declinists in general, and Pinker in particular, fail to recognize the importance of the international system, and so the role the distribution of power, especially the value of US power, plays in suppressing violence.

The Incomplete and Uneven Distribution of the "Better Angels"

No doubt we live in a time where the likelihood of personal violence is lower than it ever has been. Equally, this progress is tentative, that is to say it contains the potential for reversal, and is incomplete. I perceive two major problems with the declinist hypothesis: first, "the better angels" are unequally distributed in the world and certainly do not rule outside of the West; and second, they do not fully rule, even in the West.

Better Angels in the Rest of the World

Any review of the human rights record reveals that in China, as well as within many of the countries of South Asia, Southeast Asia, the Middle East, and Africa, one still encounters regular brutality, and all too often one does not share the freedom from violence that we in the West do. Of course, Pinker recognizes this and centers his argument on the West. Yet, naturally we wonder how do the stable conditions of the West spread to the rest? The central issue here is what is the transmission mechanism? Should the better angels spread through the export of democracy, as the Democratic Peace school of thought would suggest, or are these societies on the path to the End of History? The problematic nature of both of these solutions is evident.

That is not Pinker's fault—political scientists and, more broadly, social scientists, know little about transmission mechanisms and their durability. How ideas spread, how they change from being dismissed as "nonsense upon stilts," to a possibility, to reality, is imperfectly explored, as are the spread of historical forces Pinker argues are essential for the decline of violence. But, the unknown or imperfect nature of the transmission mechanisms does aid Pinker's argument that the better angels are winning.

... And In the West

We do know that appeals to better angels have a hard time working in the face of egoism, selfishness, and threats. I contend the better angels do not yet rule the West for two reasons. First, the consequences of human evolution in conditions of anarchy imply that the inner demons will never go away and may return when conditions change. Second, I consider the issue of leaders and ponder whether it could be that inner demons are overrepresented among leaders, including the ones in the West.

Our starting point is the core recognition that humans are the product of evolution, and the inner demons, to the degree they are the result of human evolution, may be suppressed but do not go away. The application of an evolutionary perspective is particularly useful here because it predicts that behavior is contingent on the ecological context. Evolution designed behavioral strategies to be triggered in appropriate settings and to be different or dormant in inappropriate settings. A strategy that was permanently fixed on or off regardless of the situa-

tion would be outcompeted by strategies that were flexible and able to reap better payoffs in alternate settings.

My point, shared with Pinker, is not that humans are naturally good or naturally bad at all times in all circumstances, but rather that we have proximate mechanisms for the inner demons, including egoism, dominance, and a strong propensity to make in-group/out-group distinctions that are activated in certain situations.

As Dominic Johnson and I have argued, in our environments of evolutionary adaptation, where there is the threat of predation and resource scarcity (as in the human past and today in many places in the world), egoism, dominance, and sharply defined in-group/out-group distinctions are easily triggered (Johnson and Thayer 2012). Our inner demons are unfettered. Where these conditions are tempered, such as in the modern peaceful democracies of Western Europe, cognitive mechanisms of egoism, dominance, and in-group/out-group distinctions are likely to be more subdued—the triumph of our better angels.

We cooperate where we can (such as within alliances), but the anarchy of international relations is a particularly hostile environment that tends to trigger our egoism, dominance, and group bias instead. In short, our evolutionary legacy is one of behavioral ecology—engaging the right behaviors for the right environment. This is important for international relations because it suggests that we can create environments—at least in principle—that exacerbate or suppress our human nature, so we can turn it to our advantage.

Even Pinker's careful analysis underestimates this difficulty. To do so effectively, all actors—governments, civil society, religious authorities, popular culture—must guard against backsliding and be sensitive to the fact that even if violence declines in the West, our evolutionary legacy ensures that the inner demons never go away. Equally, they may be triggered in response to threats and actions outside of the West.

In ensuring the decline of violence, there is no doubt that leaders play a key role. Here, there is a problem for Pinker's argument. Leaders may differ from the average person in the population, much of this variation stems from contextual differences—such that a given individual's behavior changes across circumstances. However, another important source of variation is individual differences—such that different people exhibit these traits to greater or lesser degrees. This is important because there are reasons to believe that political leaders may be more likely than the average person to be motivated by inner demons (Johnson 2004; Johnson and Thayer, unpub. data; Kurzban 2010; Van Vugt and Ahuja 2011).

A state's elites are more likely than average to show these traits in abundance for several reasons. First, ambitious leaders self-select themselves into running for high-profile political roles. Second, more ambitious and confident leaders are selected into power over weak-willed or hesitant candidates. Third, leaders rise to the top of their respective hierarchies through an intensively competitive process that compels them to be more attentive to self-interest and self-preservation. Finally, the experience of power itself is well known to corrupt, precisely because being a leader elevates one's sense of worth and power. Taking these phenomena together, even a skeptic may concede that the small subset of humans that become political leaders tend to have high levels of these traits and their influence and actions will be overrepresented in state behavior (Johnson and Thayer, unpub. data).

Pinker could counter that factors such as the existence of international institutions, the democratic peace, or better angels, can mitigate these problems. However, an evolutionary perspective raises new doubts about their significance. The very existence of these phenomena, not to mention the extreme efforts, expense, and commitment they continually require to be propped up, only serve

to prove the point: international politics needs very special and powerful arrangements to prevent people from acting in accord with their inner demons. That is true in the West as well as among other states.

Indeed, as Wilson (2012:56) argues, "the human condition is an endemic turmoil rooted in the evolution processes that created us. The worst in our nature coexists with the best, and so it will ever be. To scrub it out, if such were possible, would make us less human." Pinker identifies real and important causes of reduced violence, but Wilson raises a significant point. From an evolutionary standpoint, neither the demon nor angel is better; both were, and are, needed to aid our survival. One cannot cast aside the demon, nor should one want to do so. It may be that to control the inner demon, one must use an inner demon —one needs a Machiavelli to confront a Machiavelli. That is, statesmen must use power, and all of the tools of statecraft, however unpleasant or nefarious, against power to produce a balance, as realists have argued for centuries (Seabury 1965).

Imperfect though they are, the balance of power and deterrence, including nuclear deterrence, are better mechanisms for reducing interstate violence than positive historical developments, such as the spread of liberal democracy. This is because those positive developments so well described by Pinker may be reversed when the balance of power changes, as is occurring now with China's rise. After all, we are dealing with humans, not angels.

The Importance of the System and the Distribution of Power

Pinker adopts a unit level approach to his study, and so the influence of the system is neglected in his approach. He does not recognize, first, the impact of the distribution of power and, second and related, the value of US power. The impact of the system on violence is significant (Waltz 1979). Including changes in the distribution of power and alliance problems that contributed to World Wars I and II, the bipolarity of the Cold War, and most importantly, the rise of China, Pinker largely misses the influence of the system in promoting and, after World War II, suppressing violence.

Accordingly, while Pinker is sensitive to the importance of power in a domestic context—the Leviathan is good for safety and the decline of violence—he neglects the role of power in the international context, specifically he neglects US power as a force for stability. So, if a liberal Leviathan is good for domestic politics, a liberal Leviathan should be as well for international politics. The primacy of the United States provides the world with that liberal Leviathan and has four major positive consequences for international politics (Thayer 2006).

In addition to ensuring the security of the United States and its allies, American primacy within the international system causes many positive outcomes for the world. The first has been a more peaceful world. During the Cold War, US leadership reduced friction among many states that were historical antagonists, most notably France and West Germany. Today, American primacy and the security blanket it provides reduce nuclear proliferation incentives and help keep a number of complicated relationships stable such as between Greece and Turkey, Israel and Egypt, South Korea and Japan, India and Pakistan, Indonesia and Australia. Wars still occur where Washington's interests are not seriously threatened, such as in Darfur, but a Pax Americana does reduce war's likelihood—particularly the worst form—great power wars.

Second, American power gives the United States the ability to spread democracy and many of the other positive forces Pinker identifies. Doing so is a source of much good for the countries concerned as well as the United States because liberal democracies are more likely to align with the United States and be sympathetic to the American worldview. In addition, once states are governed

democratically, the likelihood of any type of conflict is significantly reduced. This is not because democracies do not have clashing interests. Rather, it is because they are more transparent, more likely to want to resolve things amicably in concurrence with US leadership.

Third, along with the growth of the number of democratic states around the world has been the growth of the global economy. With its allies, the United States has labored to create an economically liberal worldwide network characterized by free trade and commerce, respect for international property rights, mobility of capital, and labor markets. The economic stability and prosperity that stems from this economic order is a global public good.

Fourth, and finally, the United States has been willing to use its power not only to advance its interests but to also promote the welfare of people all over the globe. The United States is the earth's leading source of positive externalities for the world. The US military has participated in over 50 operations since the end of the Cold War—and most of those missions have been humanitarian in nature. Indeed, the US military is the earth's "911 force"—it serves, *de facto*, as the world's police, the global paramedic, and the planet's fire department.

There is no other state, group of states, or international organizations that can provide these global benefits. Without US power, the liberal order created by the United States will end just as assuredly. But, the waning of US power, at least in relative terms, introduces additional problems for Pinker concerning the decline of violence in the international realm. Given the importance of the distribution of power in international politics, and specifically US power for stability, there is reason to be concerned about the future as the distribution of relative power changes and not to the benefit of the United States.

One immediate problem for the decline of violence is the complications from the relatively rapid rise of Chinese power. China demonstrates that you can have elements of Pinker's argument, that is to say capitalism separated from liberal democracy. In essence, the Beijing Consensus triumphs over the Washington Consensus as Stefan Halper, among others, has argued (Halper 2010; Wright 2010; Subramanian 2011). For Pinker, high rates of trade and Chinese ownership of debt may be sources of conflict not peace. Yet, it is clear that the Chinese are not yet ruled by the better angels, and there is little reason to think that lucre or the power of commerce will convert them, especially in the face of Chinese civilization and worldview (Jacques 2009). As a thought experiment, one wonders what would be different if it were written from the Chinese perspective. Would the inner demons and better angels be the same? Both would value a Leviathan, but the Chinese Leviathan is not likely to be to Pinker's liking, or the reverse.

Leaving aside the debate about whether or how quickly the United States is in decline, there is no doubt that China's rise in relative power contains great risks of conflict and intense security competition. Indeed, if Pinker's argument is right, that the legacy of World War II has maintained peace in Europe, not nuclear weapons, or bipolarity, then, it is alarming to recognize that those causes of peace do not present in Asia or are so only partially and imperfectly.

Briefly, there are three major reasons for despair when we consider the likelihood of Sino-American security competition. First, China has numerous border disputes in the South and East China Seas, India, and, of course, Taiwan. Each of these conflicts is dangerous, particularly those in the South China Sea, due to the national security interest of Beijing, Washington and its allies, and the risk of intentional or inadvertent escalation.

Second, we must consider Beijing's and Washington's conflicting grand strategic interests. The report underplays how belligerent, revisionist, and risk accepting China may be in the future. The world has witnessed China's abandonment of Deng's 24-character strategy and talk of a "Peaceful Rise" in favor of rapid

military expansion and what can only be described as a strategic autism or tone deafness that has alarmed Japan, India, and the ASEAN states, to the benefit of the United States. Unfortunately, unless Beijing's trajectory changes, it is on a collision course with Washington.

Third, the systemic problems of alliances, mutual concerns over credibility, buck-passing, "chain ganging," and abandonment, confront the United States in its explicit or *de facto* alliances with Japan, India, the Philippines, and Vietnam. These alliances provide prodigious benefits but also introduce pathways to conflict with China. To this, we must add the dangers well identified by Robert Gilpin's theory of hegemonic war and power transition theory concerning the incentives, held by the declining hegemon or challenger, or both, for arms racing and other forms of intense security competition (Organski and Kugler 1980; Gilpin 1981; Rasler and Thompson 1994).

In sum, the better angels are not immune from the influence of the international system. Great power competition still has a large impact in causing "inner demon" behavior. Due to anarchy, if for no other reason, the better angels that Pinker sees driving the West make the West a threat to the rest of the world, which contributes to a classic security dilemma and opens avenues of conflict.

Finally, when we reflect on the durability of the decline of war, there is reason to be pessimistic. Not just because the history of these predictions is often wrong: one can recall the efforts of Marxists to show the scientific necessity of socialism and its inexorable march, or the wave of optimism after the revolutions of 1989 and certainty of the End of History. But, rather because the Long Peace is not a cause itself, but an epiphenomenon, that is the product of a specific constellation of power and ideas that is changing the West. With regret, however, given the expected changes in the relative distribution of power between China and the United States, so too will we have a change in the distribution of power between the better angels and the inner demon—with the demons once again gaining the upper hand.

The Decline of War? Multiple Trajectories and Diverging Trends

Jack S. Levy
Rutgers University

and

William R. Thompson
Indiana University

The thesis that war is in decline has gathered support from a number of authors in the past decade (Mueller 2004; Payne 2004; Gleditsch 2008; Goldstein 2011). Most noteworthy is Pinker (2011), who compiles a massive amount of evidence to make a convincing case that many forms of international and domestic violence have declined over the past half millennium, and to advance his provocative argument that "today we may be living in the most peaceable era in our species' existence" (xxi). Pinker goes beyond documenting these trends and attempts to explain them, collectively as well as individually, by constructing a

general explanation for human violence. That explanation combines evolutionary psychology, the pacifying effects of the state and of commerce, and a theory of culture that gives a central role to an expanding circle of sympathy and the powers of reason.

The importance of the questions Pinker asks is matched only by the breadth of scholarship from which he draws, his attention to detail, and the rigor of his theoretical and empirical analyses. *The Better Angels of Our Nature* is a relatively rare combination of grand theory and systematic social science. Pinker goes beyond his own fields of experimental psychology, evolutionary psychology, cognitive science, and linguistics to build on concepts and data from archeology, anthropology, sociology, political science, and biology, and to incorporate countless references to classical and modern literature and popular culture. Pinker may not have read everything ever written about violence, just more than anyone else.

Here, we focus primarily on the analysis of interstate and intrastate war. Although we do not dispute the descriptive analyses of trends in war by Pinker and other declinist authors, we do not fully share their qualified optimism that all kinds of war will continue to decline, and we question some theoretical explanations for the observed trends in war. We are skeptical of the theoretical utility of a unified theory of violence, and we think that Pinker gives too much causal weight to ideational and cultural factors and too little weight to material and institutional factors. We now develop each of these points.

Will the Trends Continue?

Declinist documentations of the "long peace" between the great powers since 1945 tend to emphasize that the most telling statistic since 1945 is zero: zero uses of nuclear weapons, zero direct battlefield engagements between the two superpowers, zero wars between any two great powers,[5] zero wars between Western European states or between major developed countries, zero territorial conquests by developed countries,[6] and zero internationally recognized states disappearing through conquest (Pinker 2011:249–51). These are impressive numbers, especially because few in 1945 would have predicted anything like the long peace. We share the optimism about the low probability of a future great power war, though we give a greater causal role to material than cultural factors. We are more skeptical about the continued decline of civil wars and interstate wars outside of the West.

We need to be cautious about extrapolating past trends into a highly uncertain future. It would be instructive to imagine the dialog on a hypothetical scholarly panel on the decline of war taking place exactly a hundred years before the April 2012 ISA panel from which this symposium originated. Panelists presumably would have focused on (then) recent books and articles on decline of war, such as Bloch's (1899/2009) book subtitled *Is War Now Impossible?* and Angell's (1911/1972) *The Great Illusion*. Each argued that any war would be long, economically devastating, socially disruptive, and hence non-rational.

Panelists in 1912 could have produced compelling evidence documenting the decline of great power war.[7] The previous century had been the most peaceful on record, continuing the decline in great power war over the previous three centuries. There had been zero great power wars for nearly four decades, a 50% decline over the last two centuries, and zero general wars involving all of the great powers for 97 years. This was the longest period of great power peace in the last four centuries of the modern European system. The median number of battle

[5]One if we include China as a great power beginning in 1949.

[6]We would add Israel as an exception.

[7]For data, see Levy (1983), Levy and Thompson (2011), and Sarkees and Wayman (2010).

deaths continued to decline, and the four great power wars that had occurred since the Congress of Vienna averaged less than a year in duration, far shorter than those in earlier centuries (or the subsequent one). The one European war of the last three decades (Greco-Turkish War of 1897) lasted 30 days. The frequency of civil wars had dropped by 50% in the previous four decades.

Great power disputes might occur, but political leaders were confident that any dispute would be resolved peacefully, as they had been in the crises over Bosnia-Herzegovina 4 years before and Agadir the previous year. Confidence in the peaceful settlement of disputes was reinforced by the ongoing detente between the two leading powers in the system (Germany and Britain) and by the capitalist peace defined by historically unprecedented levels of economic interdependence. There was some talk of preventive war, but (unlike the past decade) no great power had publicly used preventive logic to justify military action, and estimates of the probability of another preventive war were almost certainly lower in 1912 than in 2012.

In terms of quantitative trends in war, then, our counterparts in 1912 had even more grounds for optimism about the prospects for peace than we do today.[8] There was a more sustained decline in great power war and a longer period without a general war. The great power wars that had occurred in the last century were shorter in duration and involved fewer great powers. We all know what happened 2 years later.

A Unified Theory of Violence?

Pinker effectively demonstrates that different forms of war and organized violence at different levels follow a power law distribution, with a strong inverse relationship (linear in their logarithms) between the frequency and severity of violence. Pinker acknowledges that many different causal mechanisms might generate this pattern, and he concedes that the data are not sufficiently precise to specify which is operative. He argues, however, that the evidence fits the intuition that "The same psychological and game-theoretic dynamics that govern whether quarreling coalitions will threaten, back down, bluff, engage, escalate, fight on or surrender apply whether coalitions are street gangs, militias, or great power armies" (Pinker 2011:216).

If true, we would have a unified theory of violence. Pinker subsequently steps back from this expansive claim. He notes that some other forms of violence—including homicides, lynchings, domestic violence, and rapes—do not fit a power law model, suggesting that the mechanisms driving these practices differ from those driving international war. Still, there are others who have insisted on a unified theory of violence. Examples might include Freud's psychoanalytic theory of aggressive instincts as a root cause of war (Einstein and Freud 1933), frustration-aggression theory (Durbin and Bowlby 1939), and contemporary rational choice theories.

We are highly skeptical. We fear that any theory broad enough to explain violence at the levels of the individual, family, neighborhood, communal group, state, and international system would be too general and too indiscriminating to capture variations in violence within each level, which is a prerequisite for any satisfactory theoretical explanation. It is difficult to imagine an explanation for great power war, or interstate war more generally, that does not include system-level structures of power and wealth, dyadic-level rivalries, and domestic institutions and processes. All but the latter contribute little if anything to an explanation of homicides and domestic violence.

[8]We recognize that forecasts should be based on theory as well as evidence. See, for instance, Rapkin and Thompson (2013) for theoretically based forecasts of future relations between China and the United States.

It is not even clear whether different kinds of organized warfare—hegemonic wars, interstate wars, colonial wars, and civil wars—can be explained with a single theory. In fact, the theoretical literature on interstate war and civil war remains for the most part two distinct literatures, with little overlap in their respective analyses of the causes of war.[9] Exceptions include the concept of the security dilemma (Posen 1993; Snyder and Jervis 1999) and the increasingly influential bargaining model of war (Fearon 1995), which cut across both literatures.

International relations scholars are even divided on the question of whether different kinds of interstate wars can be subsumed under a single theory. A 1990 symposium addressed the questions of whether big wars and small wars had similar causes and whether a single theory could account for both.[10] Whereas Bueno de Mesquita (1990) argued that an expected utility framework can explain all kinds of wars, Thompson (1990) argued that system-level structures of power and wealth differentiate big wars from small wars.[11] The closely related question of whether the outbreak and spread (expansion) of war are driven by the same or different variables and processes was the subject of another recent symposium (Vasquez, Diehl, Flint, and Scheffran 2011).

Our skepticism about the utility of a unified theory of violence or war is reinforced by the systematic and rigorous evidence Pinker provides about the trends in different forms of violence over time. As his detailed and informative graphs make clear, different forms of human violence began to decline at different times and proceeded at different rates.[12] Many of the trends are not monotonic and sometimes point in different directions. The gradual decline in the frequency of great power war was interrupted in the first half of the twentieth century but then continued from 1950s to the present, while the frequency of civil wars began to increase significantly after 1960 before beginning an uneven decline by 1990 that included an uptick in the early 2000s. It is clear that great power wars and civil wars follow different trajectories,[13] undercutting any claim that a single process could drive these different patterns (unless those processes are defined so generally as to lose their analytic utility).

Pinker (2011) recognizes this, and concedes that we would not expect the general forces diminishing violence over time to "fall out of a grand unified theory" (p. 672). He points out, however, that it cannot be a coincidence that most human practices have moved in a less violent direction.[14] Pinker takes an important step toward explaining the decline of violence at many different levels by highlighting the role of the "pacification process" associated with the advent of agricultural societies, the "civilizing process" associated with the rise of the state, and especially the "humanitarian revolution" associated with the Enlightenment.

Institutions, Co-evolution, and Multiple Trajectories

Pinker's (2011:xxiii–xxv) underlying explanation for the decline of violence incorporates "five inner demons, four better angels, and five historical forces".

[9]Compare Levy and Thompson (2010) or Vasquez (2009) on interstate war with Mueller (2004), Hironaka (2005), or Midlarsky (2009) on civil war.

[10]"Big" and "small" were not carefully defined, but contributors to the symposium interpreted "big wars" to mean global or general wars, and "small wars" as minor-minor or major-minor wars, or perhaps bilateral major-major wars of low severity.

[11]Levy (1990) argued that this debate could not be settled on a priori theoretical grounds but only by an empirical analysis. Contemporary rationalists would side with Bueno de Mesquita but emphasize the two rationalist mechanisms of information and commitment.

[12]See, for example, figures 3-2, 4-2, 4-4, 4-6, 5-13, 6-3, and 7-2 in Pinker (2011).

[13]There may be a causal relationship. The presence or absence of great power rivalries (like the Cold War) can affect the frequency and duration of civil wars (Hironaka 2005; Kalyvas and Balcells, 2011).

[14]An interesting exception is domestic violence. Pinker's (2011:106?28) explanations for the increase in domestic violence in the 1960s ("decivilization") and its decline by the 1990s ("recivilization") are interesting but too ad hoc.

The inner demons and better angels reflect an evolved human nature. The historical forces (the Leviathan, commerce, feminization, cosmopolitanism, and reason) are exogenous, following Pinker's (2011:xxiii, 678) argument that the best explanations for historical change involve exogenous triggers. They "engage a fixed human nature in different ways" and determine whether our inner demons or better angels have the upper hand.

Here we focus on the Leviathan and commerce. The Leviathan—a state with a monopoly on legitimate violence—helps people within its territory to overcome the pernicious effects of anarchy by reducing the incentives for exploitative violence and for revenge. It is "the most consistent violence reducer" (680), and it contributed to the "pacification process" and later "civilizing process." Commerce contributes to peace by creating a positive-sum game, which reduces incentives to exploit others.

Although the Leviathan and commerce each have important pacifying effects, those effects are conditional rather than universal. Pinker fails to emphasize that under certain conditions both the Leviathan and commerce can contribute to an increase in the frequency or the severity of violence. In addition, as Pinker recognizes, neither is really exogenous. These relationships are captured by Tilly's (1975:42) famous statement that "war made the state and the state made war," and by Howard's (1976:47) statement, in his chapter on the "War of the Merchants" in the seventeenth and eighteenth centuries, that "War, to paraphrase Clausewitz, was a continuation of commerce with an admixture of other means." We might add that commerce was also a continuation of war, and that commerce had a significant impact on the rise of the state (Spruyt 1994).

War was also influenced by the broader political economy, military technology, military organization and strategy, and the external threat environment, with reciprocal relationships among all of these factors, as emphasized by theorists of the "military revolution" in early modern Europe (Rogers 1995). Although the development of the state and other forms of political organization probably contributed to a decline in the frequency of warfare,[15] it contributed to the increased severity of the wars that occurred.

These relationships were not limited to early modern Europe but have characterized the evolution of human societies since the earliest times, as we explain in our recent book *The Arc of War* (Levy and Thompson 2011). We argue that war —defined broadly as "sustained, coordinated violence between political organizations" (Levy and Thompson 2010:5)—co-evolved with changes in threat environment, weaponry, political organization, military organization, and political economy. Significant changes in one factor affected each of the others in dynamic feedback loops that cut across political organizations ranging from agricultural villages, to chiefdoms, early states, empires, and territorial states, and across modes of production ranging from hunter–gatherer to agrarian to industrial periods of political economy. The arc of war has no single driver, but we argue that changes in political economy have most often played a leading causal role. Our primary focus is on how wars have been fought and on the changing severity of war over time. We are less interested in the question—central to the declinist authors—of lower frequencies of violence.

We argue that the evolution of war has been characterized by multiple trajectories, which vary over space and time as a function of different threat environments and ecological conditions. These trajectories are neither linear nor monotonic, and they are not necessarily correlated at any point in time. This contrasts with the declinists' broadly uniform characterization of the decline of

[15]This assessment is complicated by the fact that the rise of the state involved a reduction in the number of political organizations in the system and consequently a mathematical reduction in the number of possible interstate wars.

violence and war, which is more characteristic of the West than of non-Western societies in recent times.

The Western trajectory accelerated significantly in the highly competitive and insecure threat environment of early modern Europe. The larger armies necessary for survival required states to centralize, expand their bureaucracies and taxation systems, and ultimately win the loyalties of their citizens. This reduced states' vulnerability to internal as well as external threats. It also contributed to the rapidly increasing severity and costs of great power war, which over time dampened the frequency of those wars. Although Mueller (2004) and Pinker (2011) correctly emphasize changing attitudes toward war since 1914 (at least in the West), they fail to emphasize the extent to which those changes have been causally shaped by the growing costs of war.

In non-Western trajectories, by contrast, the relative absence of a competitive security environment left states with fewer incentives or opportunities to build state capacities (Hironaka 2005).[16] These weaker states provide fewer services to their populations and have less legitimacy. Consequently, they are more likely to be challenged internally, less capable of dealing with those challenges, and more likely to experience major insurgencies and civil wars. Non-Western states also possess fewer resources with which to engage in full-fledged interstate war. These tendencies help account for the radical divergence in Western and non-Western trajectories of war.

Conclusion

We have argued that the declinists' descriptive analysis of historical trends in interstate and intrastate war is compelling, but that Pinker's explanation for these trends overestimates the role of cultural and ideational factors and underestimates the extent to which those factors are endogenous to material and institutional factors. Still, it is hard to come away from Pinker's analysis of moral psychology and the humanitarian revolution without an enhanced appreciation for the impact of cultural change on other forms of violence. We think, however, that cultural changes need to be specified more precisely in time and space. Historical changes centered in Europe have diffused to some extent throughout the world, but that diffusion has been neither even nor complete. Changes in patterns of violence in the West have been profound, and Pinker has made a major contribution by documenting them, but we need to be cautious and discriminating in universalizing those patterns.

References

Angell, Norman. (1911/1972) *The Great Illusion*. London: Garland.

Bloch, Ivan Stanislavovich. (1899/2009) *The Future of War in Its Technical, Economic, and Political Relations*. Ithaca, NY: Cornell University Library.

Bueno de Mesquita, Bruce. (1990) Big War, Little War: Avoiding Selection Bias. *International Interactions* 16(3): 159–169.

Collier, Paul, and Anke Hoeffler. (1998) On Economic Causes of Civil War. *Oxford Economic Papers* 50(4): 563–573.

Durbin, E. F. M., and John Bowlby. (1939) *Personal Aggressiveness and War*. London: Kegan Paul.

Einstein, Albert, and Sigmund Freud. (1933) *Why War?* Paris: International Institute of Intellectual Cooperation.

Fearon, James D. (1995) Rationalist Explanations for War. *International Organization* 49(3): 379–414.

Fearon, James D., and David D. Laitin. (2003) Ethnicity, Insurgency, and Civil War. *American Political Science Review* 97(1): 75–90.

Gaddis, John Lewis. (1989) *The Long Peace*. New York: Oxford University Press.

[16]European colonization also played a role.

Gat, Azar. (2006) *War in Human Civilization*. Oxford: Oxford University Press.
Gat, Azar. (2013) Is War Declining—and Why? *Journal of Peace Research* 50, in press, posted at OnlineFirst on December 21, 2012 as doi:10.1177/0022343312461023.
Ghiglieri, Michael P. (1999) *The Dark Side of Man*. Reading, MA: Perseus.
Gilpin, Robert. (1981) *War and Change in International Politics*. New York: Cambridge University Press.
Gleditsch, Nils Petter. (2008) The Liberal Moment Fifteen Years On. *International Studies Quarterly* 52(4): 691–712.
Gleditsch, Nils Petter. (2012) Whither the Weather? *Journal of Peace Research* 49(1): 3–9.
Gleditsch, Nils Petter, Peter Wallensteen, Margareta Sollenberg, Mikael Eriksson, and Håvard Strand. (2002) Armed Conflict 1946–2001. *Journal of Peace Research* 39(5): 615–637.
Gohdes, Anita, and Megan Price. (2013) First Things First. *Journal of Conflict Resolution* 57, in press, posted at OnlineFirst on November 15, 2012 as doi:10.1177/0022002712459708.
Goldstein, Joshua S. (2011) *Winning the War on War*. New York: Dutton.
Halper, Stefan. (2010) *The Beijing Consensus*. New York: Basic Books.
Hegre, Håvard, Tanja Ellingsen, Scott Gates, and Nils Petter Gleditsch. (2001) Toward a Democratic Civil Peace? *American Political Science Review* 95(1): 33–48.
Hegre, Håvard, Joakim Karlsen, Håvard Mokleiv Nygård, Håvard Strand, and Henrik Urdal. (2013) Predicting Armed Conflict, 2010–2050. *International Studies Quarterly* 57, in press, posted at Early View on December 6, 2012 as doi:10.1111.isqu.12007.
Herman, Edward S., and David Peterson. (2012) Reality Denial. ColdType e-reader. Available at http://coldtype.net/Assets.12/PDFs/0812.PinkerCrit.pdf. (Accessed January 29, 2013)
Hironaka, Ann. (2005) *Neverending Wars*. Cambridge, MA: Harvard University Press.
Holsti, Kalevi J. (1986) The Horsemen of the Apocalypse. *International Studies Quarterly* 30(4): 355–372.
Horgan, John. (2012) *The End of War*. San Francisco, CA: McSweeney.
Howard, Michael. (1976) *War in European History*. Oxford: Oxford University Press.
Howard, Michael. (1991) *The Lessons of History*. New Haven, CT: Yale University Press.
Human Security Centre. (2005) *Human Security Report 2005*. New York: Oxford University Press.
Human Security Report Project. (2007) *Human Security Brief 2007*. Vancouver, BC: HSRP.
Human Security Report Project. (2011) *Human Security Report 2009/2010*. New York: Human Security Report Project.
Jacques, Martin. (2009) *When China Rules the World*. New York: Penguin.
Jervis, Robert. (1988) The Political Effects of Nuclear Weapons—A Comment. *International Security* 13(2): 80–90.
Johnson, Dominic D. P. (2004) *Overconfidence and War*. Cambridge, MA: Harvard University Press.
Johnson, Dominic D. P., and Bradley, A. Thayer (2012) The Evolution of Offensive Realism. Working Paper, University of Oxford and Utah State University.
Kalyvas, Stathis, and Laia Balcells. (2010) International System and Technologies of Rebellion: How the End of the Cold War Shaped International Conflict. *American Political Science Review* 104 (3): 415–429.
Keegan, John. (1993) *A History of Warfare*. New York: Vintage.
Keeley, Lawrence H. (1996) *War Before Civilization*. New York: Oxford University Press.
Kurzban, Robert. (2010) *Why Everyone (Else) Is a Hypocrite: Evolution and the Modular Mind*. Princeton, NJ: Princeton University Press.
Lacina, Bethany, and Nils Petter Gleditsch. (2005) Monitoring Trends in Global Combat: A New Dataset on Battle Deaths. *European Journal of Population* 21(2–3): 145–166.
Lacina, Bethany, and Nils Petter Gleditsch. (2013) The Waning of War Is Real: A Response to Gohdes and Price. *Journal of Conflict Resolution* 57, in press, posted at OnlineFirst on November 15, 2012 as doi:10.1177/0022002712459708.
Lacina, Bethany, Nils Petter Gleditsch, and Bruce Russett. (2006) The Declining Risk of Death in Battle. *International Studies Quarterly* 50(3): 673–680.
LeBlanc, Steven A., With Katherine E. Register. (2003) *Constant Battles: Why We Fight*. New York: St. Martin's.
Levy, Jack S. (1983) *War in the Modern Great Power System, 1495–1975*. Lexington, KY: University Press of Kentucky.
Levy, Jack S. (1990) Big Wars, Little Wars, and Theory Construction. *International Interactions* 16(3): 215–224.
Levy, Jack S., and William R. Thompson. (2010) *Causes of War*. Chichester: Wiley-Blackwell.

Levy, Jack S., and William R. Thompson. (2011) *The Arc of War: Origins, Escalation, and Transformation*. Chicago, IL: University of Chicago Press.
Levy, Jack S., and William R. Thompson. (2013) The Decline of War? Multiple Trajectories and Diverging Trends. International Studies Review. DOI: 10.1111/misr12035.
Long, William J., and Peter Brecke. (2003) *War and Reconciliation*. Cambridge, MA: MIT Press.
Luard, Evan. (1988) *The Blunted Sword*. New York: New Amsterdam Books.
Midlarsky, Manus I. (ed.) (2009) *Handbook of War Studies III*. Ann Arbor, MI: University of Michigan Press.
Muchembled, Robert. (2012) *A History of Violence*. Cambridge: Polity [French original 2008].
Mueller, John. (1989) *Retreat from Doomsday*. New York: Basic Books.
Mueller, John. (2004) *The Remnants of War*. Ithaca, NY: Cornell University Press.
Mueller, John. (2009) War Has Almost Ceased to Exist. *Political Science Quarterly* 124(2): 297–321.
Mueller, John. (2010) Capitalism, Peace, and the Historical Movement of Ideas. *International Interactions* 36(2): 169–184.
Obermeyer, Ziad, Christopher J. L. Murray, and Emmanuela Gakidou. (2008) Fifty Years of Violent War Deaths from Vietnam to Bosnia. *British Medical Journal* 336(7659): 1482–1486.
Organski, A. F. K., and Jacek Kugler. (1980) *The War Ledger*. Chicago, IL: University of Chicago Press.
Payne, James L. (2004) *A History of Force*. Sandpoint, ID: Lytton.
Pinker, Steven. (1994) *The Language Instinct*. New York: HarperCollins.
Pinker, Steven. (1997) *How the Mind Works*. New York: Norton.
Pinker, Steven. (1999) *Words and Rules*. New York: HarperCollins.
Pinker, Steven. (2002) *The Blank Slate*. New York: Viking.
Pinker, Steven. (2011) *The Better Angels of Our Nature*. New York: Viking.
Pinker, Steven. (2013) The Decline of War and Conceptions of Human Nature. *International Studies Review*. DOI: 10.1111/misr12035.
Pogge, Thomas. (2010) *Politics as Usual. What Lies Behind the Pro-Poor Rhetoric*. Cambridge: Polity.
Posen, Barry R. (1993) The Security Dilemma and Ethnic Conflict. *Survival* 35(1): 103–124.
Rapkin, David P., and William R. Thompson. (2013) *Transition Scenarios: China and the United States in the Twenty-first Century*. Chicago, IL: University of Chicago Press.
Rasler, Karen A., and William R. Thompson. (1994) *The Great Powers and Global Struggle 1490–1990*. Lexington, KY: University Press of Kentucky.
Ray, James L. (1989) The Abolition of Slavery and the End of International War. International Organization 43(3): 405–439.
Richards, Jesse. (2010) *The Secret Peace*. New York: Book&Ladder.
Rogers, Clifford J., Ed. (1995) *The Military Revolution Debate*. Boulder, CO: Westview.
Russett, Bruce, and John Oneal. (2001) *Triangulating Peace*. New York: Norton.
Sarkees, Meredith Reid, and Frank Whelon Wayman. (2010) *Resort to War, 1816–2007*. Washington, DC: CQ Press.
Scheffran, Jürgen, Michael Brzoska, Jasmin Kominek, P. Michael Link, and Janpeter Schilling. (2012) Climate Change and Violent Conflict. *Science* 336 (6083): 869–871, 18 May.
Schneider, Gerald, and Nils Petter Gleditsch, Eds. (2013) *Assessing the Capitalist Peace*. London: Routledge.
Seabury, Paul. (1965) *The Balance of Power*. San Francisco, CA: Chandler.
Singer, J. David, and Melvin Small. (1972) *The Wages of War. 1816–1965*. New York: Wiley.
Snyder, Jack, and Robert Jervis. (1999) Civil War and the Security Dilemma. In *Civil Wars, Insecurity, and Intervention* edited by Barbara F. Walter and Jack Snyder. New York: Columbia University Press.
Spagat, Michael, Andrew Mack, Tara Cooper, and Joakim Kreutz. (2009) Estimating War Deaths. *Journal of Conflict Resolution* 53(6): 934–950.
Spruyt, Hendrick. (1994) *The Sovereign State and Its Competitors*. Princeton, NJ: Princeton University Press.
Subramanian, Arvind. (2011) *Eclipse*. Washington, DC: Peterson Institute for International Economics.
Thayer, Bradley A. (2004) *Darwin and International Relations*. Lexington, KY: University Press of Kentucky.
Thayer, Bradley A. (2006) In Defense of Primacy. *National Interest* 86: 32–37.
Thayer, Bradley A. (2013) Humans, Not Angels: Reasons to Doubt the Decline of War Thesis. International Studies Review. DOI: 10.1111/misr12035.

Theisen, Ole Magnus, Nils Petter Gleditsch, and Halvard Buhaug. (2013) Is Climate Change a Driver of Armed Conflict? *Climatic Change* 116, in press.

Themnér, Lotta, and Peter Wallensteen. (2012) Armed Conflicts, 1946–2011. *Journal of Peace Research* 49(4): 565–575.

Thompson, William R. (1990) The Size of War, Structural and Geopolitical Contexts, and Theory Building/Testing. *International Interactions* 16(3): 183–199.

Tilly, Charles. (1975) Reflections on the History of European State-Making. In *The Formation of National States in Western Europe*, edited by Charles Tilly. Princeton, NJ: Princeton University Press.

Van Vugt, Mark, and Anjana Ahuja. (2011) *Naturally Selected*. New York: HarperCollins.

Vasquez, John A. (2009) *The War Puzzle Revisited*. New York: Cambridge University Press.

Vasquez, John A., Paul F. Diehl, Colin Flint, and Jürgen Scheffran. (2011) Forum on the Spread of War, 1914–1917: A Dialogue between Political Scientists and Historians. *Foreign Policy Analysis* 7(2): 143–214.

Waltz, Kenneth N. (1979) *Theory of International Politics*. Reading, MA: Addison-Wesley.

Wilson, Edward O. (1998) *Consilience*. New York: Vintage.

Wilson, Edward O. (2012) *The Social Conquest of the Earth*. New York: Norton.

Wright, Teresa. (2010) *Accepting Authoritarianism*. Stanford, CA: Stanford University Press.