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Steven Pinker on Violence and Human Nature

David Edmonds: *The world is a violent place, and if you watch the television you presumably believe it's getting more violent. But it isn't: it's becoming more peaceful - at least according to Steven Pinker, distinguished Harvard psychologist and author of The Better Angels Of Our Nature. It's a phenomenon which he believes social science can explain.*

Nigel Warburton: *Steven Pinker, welcome to Social Science Bites.*

Steven Pinker: Thank you.

Nigel Warburton: *The topic we're going to focus on is violence and human nature. A lot of people assume that there is something fundamental in human nature that makes us violent. Is that what you believe?*

Steven Pinker: Yes, but that's only the beginning of the story because there's also something in human nature that can inhibit violence. So, though we do have violent inclinations, it doesn't mean we'll always be violent, because it all depends on whether they're successfully inhibited or not by our peaceable inclinations.

Nigel Warburton: *And the story that you tell in your book is that we've moved from a position of giving into our inclinations, to, as a species, being far less violent than ever before.*

Steven Pinker: That's right. Any time you quantify violence and plot the rates over time you see an overall decline from the vantage point of the present. That raises the question 'Why were we so violent in the past?' and it raises the equally interesting question 'How did we get less violent in the present?'

Nigel Warburton: *Just before we go into the explanation, is it really true that we are less violent, because that seems counterintuitive?*

Steven Pinker: It seems counterintuitive because people get their impression about how violent we are from the news. The news is systematically biased toward things that happen, as opposed to things that don't happen, and we know from cognitive psychology that people's sense of risk is driven far more by their memory of vivid anecdotes than by any set of statistics. When you think about it, if someone dies peacefully in their sleep at the age of 87, there's not going to be a reporter at the foot of the bed announcing it to the world; and if there's some major city that has not been torn by war for the last 35 years, you never see a camera crew saying 'Here I am in the capital of Angola, and for yet another year there's no

war here'. When something does blow up, that does make the news. Since rates of violence haven't gone down to zero, there's always enough to fill the news, and so our subjective impressions are out of whack with the statistical reality.

Nigel Warburton: *But isn't there more going on there than that, because we've seen two world wars in the last century, we have the technologies for killing which are dramatically more effective than anything ever previously invented. Surely, in the age of the nuclear weapon, there can't have been a reduction in violence...*

Steven Pinker: There can and there has been. In fact some people causally connect them: the reason there's been a reduction in war is because the fear of escalation to a nuclear war, which would be unimaginably destructive, has scared leaders straight, so they don't even contemplate a war, given that it might escalate into a nuclear holocaust. I personally don't think that was the primary cause. , We have the memory of the two world wars (and our memory is more acute for more recent events; I call this historical myopia: the closer to the present, the finer distinctions that you make), but we tend to forget all of the holocausts and conflagrations of earlier centuries, which could be remarkably destructive. The worst civil war in history took place in the nineteenth century: the Taiping Rebellion in China. The European wars of religion were proportionately as destructive, probably more destructive, than World War I. The Mongol invasions, the fall of the Roman Empire, the collapse of various Chinese dynasties: each one of these could kill a proportion of the population that was in the ballpark of the world wars of the twentieth century. Also, we tend to forget that the twentieth century is 100 years, so we think of the two world wars, ignoring the fact that, to the astonishment of military historians, since 1945 big, rich, developed countries have stopped waging war on each other. We just take it for granted that France and Germany aren't going to come to blows, but that's a historically unprecedented phenomenon.

Nigel Warburton: *So in your book, The Better Angels Of Our Nature, you've gathered the evidence of the decline in violence. So what's the cause?*

Steven Pinker: There are a number of causes. One of them is the spread of the reach of government: if you outsource your revenge and justice to a disinterested third party, there will be less bloodshed than if you are judge, jury and executioner of the crimes against you. Each side thinking that it's in the right and the other side is the aggressor can lead to endless cycles of violence and blood feuds and vendettas, which a court system and police force can circumvent. There's trade and commerce: when there are opportunities to buy and sell (a form of reciprocal altruism), then other people become more valuable to you alive than dead, so over the course of history, since there's been a richer infrastructure of commerce, trade becomes more tempting than plunder. Another factor is the growth of cosmopolitanism: people travelling, or reading about other peoples at other times and places, looking into their lives, empathising with them, getting evidence that they are not

demons or sub-human, makes it harder to make someone a mortal foe or vermin that has to be stamped out. And finally there's the overall growth of rationality, literacy, the accumulation of knowledge, reason, science - all of which can encourage us to treat violence as a problem to be solved. , And just as we try to cure diseases or alleviate famines, we can figure out techniques of making violence less attractive. And, intermittently, that's exactly what we've succeeded in doing.

Nigel Warburton: *So, this kind of government, this increase in trade, cosmopolitanism, and also the increasing rationality, apparently, they're correlated with the decline in violence, but the correlation doesn't necessarily imply a causal story there.*

Steven Pinker: That's right. There have been statistical studies that try to turn the correlation into a causal story by, for example, measuring a putative cause at Time 1, and looking at the incidence of war at Time 2, so at least you've got the cause preceding the effect. These are regression analyses, which hold constant various nuisance third factors. There are also experimental studies where an independent variable is manipulated in a laboratory to test, at least on a small scale, whether particular measures reduce the likelihood of violence.

Nigel Warburton: *That's really interesting because you're moving from an analysis of history, to an empirical, testable situation, where you're controlling variables like a scientist traditionally has done. But human beings aren't that easy to treat in that way when we're discussing what has happened a long time in the past. So there must be some degree of probability here, rather than certainty about the causal stories.*

Steven Pinker: Absolutely, I think most philosophers of science would say that all scientific generalisations are probabilistic rather than logically certain, more so for the social sciences because the systems you are studying are more complex than say, molecules, and because there are fewer opportunities to intervene experimentally and to control every variable. But the existence of the social sciences, including psychology, to the extent that they have discovered anything, shows that despite the uncontrollability of human behaviour, you can make some progress: you can do your best to control the nuisance variables that are not literally in your control, you can have analogues in a laboratory that simulate what you're interested in and impose an experimental manipulation. You can be clever about squeezing the last drop of causal information out of a correlational data set, and you can use converging evidence, the qualitative, narratives of traditional history in combination with quantitative data sets and regression analyses that try to find patterns in them. But I also go to traditional historical narratives, partly as a sanity check. If you're just manipulating numbers, you never know whether you've wandered into some preposterous conclusion by taking numbers too seriously that couldn't possibly reflect reality. , Also, it's the narrative history that provides hypotheses that can then be tested. Very often a historian comes up

with some plausible causal story, and that gives the social scientists something to do in squeezing a story out of the numbers.

Nigel Warburton: *I wonder if you've got an example of just that, where you've combined the history and the social science?*

Steven Pinker: One example is the hypothesis that the Humanitarian Revolution during the Enlightenment, that is, the abolition of slavery, torture, cruel punishments, religious persecution, and so on, was a product of an expansion of empathy, which in turn was fuelled by literacy: the consumption of novels and journalistic accounts. People read what life was like in other times and places, and then applied their sense of empathy more broadly, which gave them second thoughts about whether it's a good idea to disembowel someone as a form of criminal punishment. So that's a historical hypothesis. Lynn Hunt, a historian at Berkeley proposed it, and there are some psychological studies that show that indeed, if people read a first-person account by someone unlike them, they will become more sympathetic to that individual, and also to the category of people that that individual represents. So now we have a bit of experimental psychology supporting the historical qualitative narrative. And in addition, one can go to economic historians, and see that indeed, there was, first a massive increase in the economic efficiency of manufacturing a book, then there was a massive increase in the number of books published, and there was a massive increase in the rate of literacy. So you've got a story that has at least three vertices: the historian's hypothesis; the economic historians identifying exogenous variables that changed prior to the phenomenon we're trying to explain, so the putative cause occurs before the putative effect; and then you have the experimental manipulation in a laboratory, showing that the intervening link is indeed plausible.

Nigel Warburton: *And so you conclude that the decentring that occurs through novel-reading and first person accounts probably did have a causal impact on the willingness of people to be violent to their peers?*

Steven Pinker: That's right. And of course, one has to rule out alternative hypotheses. One of them could be the growth of affluence: perhaps it's simply a question of how pleasant your life is. If you live a longer and healthier and more enjoyable life, maybe you place a higher value on life in general, and by extension, the lives of others. That would be an alternative hypothesis to the idea that there was an expansion of empathy fuelled by greater literacy. But that can be ruled out by data from economic historians that show there was little increase in affluence during the time of the Humanitarian Revolution. The increase in affluence really came later, in the nineteenth century, with the advent of the Industrial Revolution.

Nigel Warburton: *Your book is very unusual in being so eclectic in its sources. Do you see yourself as a social scientist primarily, or are you a scientist, are you a historian? How would you categorise yourself?*

Steven Pinker: By academic credentials, I am an experimental psychologist, which makes me, by inheritance, a social scientist, because many people subsume psychology under the social sciences. We psychologists, when given the choice, like to describe ourselves as scientists. Many universities have gone through a battle as to which dean should be responsible for psychology, and usually we lobby to be included with the scientists. , I've been at several universities and my department has been in many different schools. In fact at one university my department was in three different schools at different times: while I was at MIT, the psychology department started out in humanities and social sciences, moved over to their equivalent of a medical school, and then moved again into the science school. So there's no clear answer to the question of what a psychologist is. I'm certainly not a historian by training and I couldn't possibly pretend to be one, particularly when it comes to analysing primary historical documents and other source material. On the other hand, as a social scientist, I'm perfectly comfortable when it comes to numbers, regressions, and graphs, and so I concentrated on the historical accounts that had some degree of quantification.

Nigel Warburton: *And do you see that as being at the core of the social sciences, this concern with what can be quantified, what can be measured scientifically, rather than purely interpretatively?*

Steven Pinker: The way I would put it is that the scientist's concern is with testing whether hypotheses are true or false. Quantification is a means to the end of determining whether your ideas are right or wrong, but it doesn't necessarily have to be numbers. It could be phenomena that are qualitative, on/off, 1/0, black/white. Much work in linguistics consists of qualitative distinctions that differentiate rival theories, so quantification is not a fetish.

Nigel Warburton: *It seems to me that we're living in a golden age for social science: suddenly there are all these books filling the bookshelves which are primarily social science and written by often very skilful writers. Is there sort of something happening here?*

Steven Pinker: There is something happening here, because social science used to be the most boring part of academia. One wag described social science as 'slow journalism', and wasn't it W.H Auden who said 'Thou shalt not commit a social science'? It had the reputation of being banal, of just re-describing common-sense phenomena, and it lost prestige funding to sexier fields of knowledge like neuroscience. But that is changing: one sees bestsellers based on social science, one sees policymakers, certainly in Washington, that came from the social sciences. One of the reasons is that whereas social science used to be bio-phobic - it set itself in opposition to evolution and neuroscience and genetics - now a

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new generation of social scientists just doesn't see a strict boundary between biology on one side and social phenomenon on another. And the advent of "big data" has made social science sexy to those with an analytic, quantitative mind. Because of advances in computing technology, particularly in storage, you can have terabytes of data hold interesting lessons if only you could analyse them - something that just wasn't true when we had computers whose discs sizes were measured in Ks instead of in Ts. I think also the social sciences are no longer atheoretical, no longer just describing statistical patterns. Because of the unification with the sciences, there are more genuinely explanatory theories, and there's a sense of progress, because non-obvious things that are being discovered that have profound implications.

Nigel Warburton: *And yet, there is this sense that the social sciences are always biased in one particular way so the author confirms their political persuasion by the sort of research that he or she does.*

Steven Pinker: Well, that would be a sin, to the extent that that's true, and that's what the rules of the game are designed to minimise. If you are riding some political hobbyhorse, you still have to prove your assertions by testing them against data that everyone would agree is a valid test of your hypothesis, and if your pet political theory comes out bloody and bruised then that's just too bad. At least that's the way that the game should work.

Nigel Warburton: *Steven Pinker, thank you very much.*

Steven Pinker: My pleasure, thanks for having me.