

Reply to Joachim Krueger's review of *Rationality*

Steven Pinker

I enjoyed Joachim Krueger's thoughtful and good-natured review of *Rationality*. As fellow students of rationality and irrationality, including self-serving biases, neither of us will be surprised that I wish to defend myself in the face of some of his gentle critical remarks.

Krueger suggests that I anchored my story in the mainstream heuristics-and-biases school of reasoning. But members of that school beg to differ: some have given me a hard time for being too nice to their adversaries like Gerd Gigerenzer, Ralph Hertwig, Daniel Kahneman, and Leda Cosmides. While acknowledging the monumental contributions of Tversky, Kahneman, Slovic, and others, my own portrait of the human mind is more charitable to our species than the bag-of-biases and reflexive-caveman images that are often associated with that school. Starting from the first chapter, in which I tout the rationality of the San hunter-gatherers of the Kalahari (including their Bayesian reasoning), I present many defenses of human reasoning in ecologically natural circumstances, together with suggestions on how people's intuitions can be enhanced to grasp normative principles, a prospect about which the heuristics-and-biases theorists tend to be pessimistic.

Overall, I agree with Krueger's approach to rationality more than his review suggests. I agree that trust, together with other social emotions such as sympathy, evolved as adaptations to solve Prisoner's Dilemmas, and wrote as much on p. 242 (and in greater depth in *How the Mind Works* and *The Better Angels of Our Nature*). The problem, of course, is that the solutions don't scale well beyond close-knit social networks. In larger societies, and on the international scale, cheaters can exploit others' trust, and the temptations for defection can be enormous. Here the famous Russian watchword applies: Trust but verify.

I agree, too, that ignorance can be rational (see the section "Rational Ignorance," pp. 56-58), that loss aversion is an adaptation to the singularity of death, and that individual rationality can subvert collective welfare. I disagree, though, with the suggestion that "methodological individualism" is a "sacred tenet of the Enlightenment." Enlightenment thinkers were *obsessed* with the tension between self-interested rationality and collective welfare, as we see in analyses of the social contract by Hobbes, Locke, Rousseau, Hume, Smith and the framers of the American constitution. For apposite quotes, see the epigraph to the chapter on game theory from Hume and, bracketing the chapter, the quote in the penultimate sentence from Hobbes.

I also appreciated Krueger's own epigraph, from one of my favorite Dylan songs, "Things have changed."

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