

## BOOK REVIEW ESSAY

### Review Essay: The Battle over Human Nature, Coming to a Resolution

**The Open Mind: Cold War Politics and the Sciences of Human Nature.** By Jamie Cohen-Cole. Chicago, IL: University of Chicago Press. 2014. 260 pp.

**A Natural History of Human Thinking.** By Michael Tomasello. Cambridge, MA: Harvard University Press, 2014. 158 pp.

**Our Political Nature: The Evolutionary Origins of What Divides Us.** By Avi Tuschman. New York, NY: Prometheus Books. 2013. 413 pp.

**Survival of the Nicest: How Altruism Made Us Human and Why It Pays to Get Along.** By Stefan Klein. New York, NY: The Experiment. 2014. 210 pp.

Human nature—what it is, whether it is primarily good or evil, and if it even exists—has been contested for generations. Conservatives such as Thomas Sowell divide views of human nature into pessimistic and optimistic camps, corresponding to the Right and the Left, respectively.<sup>1</sup> The Right's pessimistic view of human nature posits its existence and deems human nature primarily negative. Whether owing to the mytho-religious "Fall," or to millions of years of red-in-tooth-and-claw natural selection, this view finds human nature selfish and prone to immorality. As a result, political policies should eschew grand aims; that which we already have is likely to be the best that can be fashioned out of such crooked timber as ourselves. In contrast, the Left's optimistic view of human nature either questions its very existence or focuses on its positive aspects. The Left argues that human societies should strive for perfection, since we are all either infinitely malleable or possessed of sufficient natural virtue to fashion ever better social arrangements.

Classical exponents of these competing visions—Edmund Burke on the pessimist Right or Jean-Jacques Rousseau on the optimist Left—possessed only personal observation, experience, and the opinions of ancient writers on which to base their views of human nature. The present books' investigations into human nature and its evolution offer new insights which, while neither confirming nor disproving the pessimistic and optimistic views nonetheless provide an important synthesis.

Jamie Cohen-Cole's *The Open Mind: Cold War Politics & the Sciences of Human Nature* sets the stage for the development of this synthesis. Cohen-Cole begins in the 1930s and 1940s, with the United States distinguishing and protecting itself from both fascism and communism. Intellectual

<sup>1</sup> See Sowell (1996).

elites were worried that the cohesion of modern societies was imperiled by rapid technological and economic development. These elites fastened upon “open-mindedness” as both the distinguishing feature of American society and a bulwark against authoritarianism. The open-minded citizen would be immune from polarizing ideology and capable of understanding complex, technical questions well enough to entrust them to the correct experts.

In the 1950s, psychologists studying the authoritarian personality located the core of the pathology in its incapacity for nuanced, flexible thought. It was not human nature that condemned society to authoritarianism, scholars found; instead, human nature was viewed as malleable enough to *allow* for authoritarianism under certain influences. A properly designed education, however, could cultivate open-mindedness instead. This education would prevent the U.S. population from falling prey to authoritarianism, while differentiating U.S. society from that of the Soviet Union in the eyes of the world.

At the beginning of the Cold War, this optimistic vision of human nature as being capable of open-mindedness gained adherents both for its intrinsic appeal and for its usefulness in the battle of ideologies. “Free” countries displayed flexible, open-minded thinking, dominated by scientific and technical considerations, not ideology. Homogeneity and conformity signaled danger, as did strong political views—on the Right or Left—which contemporary psychologists found to be evidence of the “dogmatic” or even “autistic” thinking characteristic of authoritarians. The commitment to “open-mindedness” attempted to delegitimize political positions left or right of center, and it supported the challenge to behaviorism and its eventual overthrow at the hands of cognitive psychology. Cognitive psychology, after all, suggested that the human mind was far freer by nature and less susceptible to conditioning by a ruling bureaucracy.

By the late 1960s, with behaviorism in decline and cognitive psychology ascendant, the open-minded view of human nature was wrested from the political center by the Left. Cohen-Cole finds little violence done to this view of human nature in the process; rather, the Left rightfully claimed that U.S. society was failing to live up to the very standards of open-mindedness its intellectual elite had enthroned. Leftist radicals began exposing liberal centrism as an ideology itself, rather than an objective framework to apply open-minded thinking to political problems. Key to this expose were intellectuals like Noam Chomsky (also a key figure in the battle with behaviorism), who showed that the U.S. foreign policy establishment both failed to adopt the universal analytic principles it purportedly enshrined and shunned critics who did. Far from being open-minded, liberal centrists employed a clear set of double standards: one for “us” and the other for “the enemy.” Concomitantly, psychologists began to find that the same mental handicaps once associated with authoritarians and political extremists were actually more prevalent among centrist supporters of the status quo. Maladjustment, as Martin Luther King, Jr. (1968, p. 180) pointed out, is *desirable* in an unjust society. During this shift, liberal centrists found themselves disarmed, and their key intellectual weapon was pointed back at them by the Left.

Dispossessed of their vision of human nature, U.S. centrists who were unwilling to concede that their country failed to uphold the standards of open-mindedness and rationality were left adrift. Many joined the neoconservative movement. Meanwhile, the Right questioned whether open-mindedness actually was a desirable trait and argued that it was not the defining characteristic of “free” societies. They claimed that instead of being taught to be flexible and open-minded, young students should be taught Western values through a classical education. True to their pessimistic vision of human nature, the Right viewed open-mindedness as more likely to lead to the adoption of authoritarian communism than to guarantee a vibrant democracy.

While *The Open Mind* provides an interesting intellectual history of the Cold War period, its exhaustive level of detail can at times lose the forest in the trees. For a reader interested in the details of the period, however, this is more virtue than vice. Cohen-Cole’s book also provides a potent

reminder of and historical context for the political importance of the question: What is human nature?

In *A Natural History of Human Thinking*, Michael Tomasello informs our vision of human nature by carefully distinguishing human ways of thinking from those of our closest animal relatives and suggests how human thought, the most integral part of our nature, may have first arisen and then evolved into its current form. Tomasello builds his account from a foundation of primate social cognition: that early hominids shared much the same ability to think that modern great apes display. This includes the ability to use cognitive representations, inferences, and self-monitoring (demonstrated through ingenious experiments with great apes). Primate thought, however, even in ostensibly cooperative contexts (like group hunting), is fundamentally individualistic or selfish. It is narrowly tailored for success in social competition.

With this rudimentary form of social cognition as a foundation, early humans encountered radical climatic changes that threatened and transformed their ecological niche. This forced humans to begin collaborating in novel ways to find food, creating a severe selection pressure for cooperation and the cognitive tools required to sustain it. Key among these tools is joint intentionality: Humans had to be able to imagine the mental state of others, communicate with others using pointing and pantomiming, and adopt individual roles within a joint, collaborative goal. Not only did we have to recognize a “we” of which individuals were parts, but we had to accurately imagine how others were likely to think and interpret our attempts at communication. Individuals also had to begin evaluating potential collaborative partners, selecting the best team players while excluding cheaters, laggards, and bullies—thereby decreasing their fitness and their frequency in the population. This explanation dovetails nicely with Boehm’s (2012) anthropological account, which details the ubiquity of staunchly enforced cooperation—or “aggressive egalitarianism”—across several hunter-gatherer societies.

Tomasello provides convincing evidence of the cooperative instinct’s deep roots in humans by comparing the performance of human children and great apes in experiments designed around the achievement of some joint goal. Before culture has had much of a chance to leave an imprint, children display a persistent commitment to achieving joint goals even in the face of distractions and temptations. Apes, on the other hand, quickly give up on the slightest temptation. Similarly telling is a physical characteristic of humans that sets us apart from over 200 other species of primates: highly visible eye direction given away by our striking white sclera. We are constantly communicating the direction of our gaze to others, and this could not be adaptively stable in an environment which was not fundamentally cooperative.

This selection pressure, driven by the great gains to be had from cooperation, provided the basis for the emergence of language. Cooperation required a minimum level of communicative ability: pointing toward prey or predators, pantomiming what sort of prey or predators were present, etc. Once this minimum communicative ability was present, the foundation was laid for the evolution of full-fledged language. Idiosyncratic pantomimes and gestures could slowly be replaced by standardized signs, and standardized signs could be combined to transmit more complex thoughts; these combinations, in turn, could be represented by still other standardized signs, allowing for the representation of a host of abstract concepts impossible to capture by pointing and pantomime.

As Dennett (1995) explained, evolution works through cranes, not skyhooks. Even the most remarkable product of evolution did not descend from the sky but was built upon some related foundation. This prelinguistic form of communication was likely the crane by which human language was built. Humans began to conventionalize the signs they used to communicate so that everyone in the cultural ingroup could readily understand each other and coordinate their actions thereby. This created an “objective” world, within which everyone in the ingroup could understand, imagine, and coordinate. It was but a relatively small step from conventionalized sign language to verbal language.

Human language provided an unparalleled means of communicating large amounts of information, and with this new means of communication, cultural ideas, norms, and practices could evolve. Ideas, represented by language, could be passed on from generation to generation, with selection operating to retain some and discard others. Cultures could differentiate and adapt to varied environments, providing the flexibility required to spread out and occupy the planet.

Tomasello's argument is well crafted and amply supported, and he provides if not a definitive account of what human nature is, at least its cornerstone: the cooperative instinct. The theory is simple and elegant. Early humans facing drastic climate change were left with resources that could only be obtained through cooperation. This created a selection pressure for minds that better understood other minds, allowing the species to collaborate in the exploitation of the new resources. This evolutionary strategy proved successful and spurred in its wake a pressure for greater communicative ability, which in turn produced a mind capable of language, allowing for the runaway evolution of ideas and cultural practices that have made our species so successful. Not only does Tomasello's book make it much more difficult to suspend disbelief when watching any of the *Planet of the Apes* films, it also renders strong versions of the pessimistic view of human nature completely untenable. No matter the capacity for selfishness and harm we have inherited from our simian relatives, we alone have evolved an unmatched ability to cooperate for our joint benefit. Nothing else about us is as *human*.

Yet that which gives the optimistic view of human nature its strongest boost is also at the root of the pessimistic view. Cooperation, after all, takes place within a cultural group; and as soon as cultural groups proliferate, cooperation within groups can produce ferocious competition between them. Avi Tuschman's *Our Political Nature: The Evolutionary Origins of What Divides Us* takes off at this point of departure.

The book's hypothesis begins with the Right-Wing Authoritarianism (RWA) scale, dividing it into three clusters: tribalism (including ethnocentrism, religiosity, and sexual tolerance), tolerance of inequality (including societal and familial hierarchies), and perceptions of human nature. (Similar to Sowell's dichotomy, the Left optimistically sees human nature as primarily cooperative, and the Right pessimistically sees human nature as primarily competitive). These three clusters are proposed to arise from distinct evolutionary pressures encompassing ingroup/outgroup conflicts, intrafamily conflicts over resources, and altruism versus self-interest. This theory links political dispositions with evolutionary pressures and promises to explain the surprising degree of correlation between genes and ideology, as revealed by studies of identical and fraternal twins (Funk et al., 2013). Such studies are quite counterintuitive—why should genes in existence for millions of years have anything whatsoever to do with flash-in-the-pan political elections and debates around contemporary issues?

The first cluster, tribalism, may have arisen as a result of the evolutionary consequences of outbreeding and inbreeding. (These are relative concepts, on a continuum: outbreeding is defined here as mating between individuals who have greater genetic diversity than would be expected at random, given the population; inbreeding occurs when relatives mate more often than would be expected at random.) Across the animal kingdom, there are situations in which outbreeding enhances fitness, while inbreeding depresses fitness; in other situations, it is the reverse. Mating between genetically distant individuals can result in the disruption of gene complexes that provided useful adaptations to the local environment, while mating between individuals who are too genetically similar can result in congenital illnesses. Contrariwise, outbreeding can be beneficial by refreshing the gene pool and limiting the spread of pathogens; and inbreeding can be beneficial, by preserving advantageous gene complexes. Hence, it is likely that an evolutionarily stable strategy would obtain in a population split between xenophobes (given to inbreeding) and xenophiles (given to outbreeding).

As ethnocentrism, religiosity, and sexual tolerance are all directly related to mate choice, an evolutionary explanation seems sensible. The underlying evolutionary rationale for a higher degree of inbreeding could possibly be expressed through a larger right amygdala, greater fear of the unknown,

and more disgust at impurity and filth—leading, through nationalist or ethnocentric ideology, strong religious belief, and restrictive sexual mores, to more ingroup mating. Meanwhile, the complementary evolutionary rationale for a higher degree of outbreeding could possibly be expressed through a larger anterior cingulate cortex, greater desire for stimulation, and less fear of the unknown—leading, through rejection of nationalism and ethnocentrism, less dogmatic religious belief, and flexible sexual mores, to more outgroup mating. Here, there is an evolutionary pressure (an optimal balance between inbreeding and outbreeding) causing differences in the mind (propensities to fear, obedience, disgust), leading to the adoption of political beliefs which result in mating patterns that satisfy the original evolutionary pressure.

The second cluster, tolerance of inequality, is proposed to arise from one's birth order. Intrafamily conflicts over resources permeate the animal kingdom, and in humans, this often results in siblings experiencing quite different relationships to their parents and each other. The different family niches siblings occupy help mold their personalities, creating politically relevant personality differences. First-borns are more likely to identify with their parents' authority, believe in the justice of hierarchies, and have more right-wing political beliefs; later-borns tend to be more left-wing. While this is a somewhat satisfying explanation, note that it relies on environmental influence on gene expression, not genes themselves; as such, it does little to account for population-level correlations between genes and political dispositions.

The third and final cluster returns us to human nature. Tuschman's hypothesis is that the Right is more attuned to mere kin-selection altruism (perhaps through gene-influenced levels of oxytocin and arginine vasopressin), while the Left is more trusting and capable of reciprocity-based altruism. As a result, the Right generally finds it harder to trust and cooperate with nonkin and so views human nature itself as primarily competitive; while the Left ends up viewing human nature as primarily cooperative, for the opposite reason.

Tuschman's book is ambitious in scope, and he proposes a series of worthwhile hypotheses, partially supported by varied research, that deserve further study and discussion. For a book that advances a somewhat speculative theory, it is at times overconfident in tone. For instance, Tuschman states that "patriarchy is a universal feature of human societies" (p. 197), overlooking the fact that patriarchy is a contested concept, and by a less-generous definition of patriarchy such an assertion would simply not be true. Elsewhere, he picks out Hugo Chavez as evidence that "far-left leaders do not bring about greater socioeconomic egalitarianism within their societies" (p. 385), but he uses an index of *perceptions of corruption* to prove his point, along with Venezuela's Gini coefficient in 2010—which he fails to mention was significantly lower than before Chavez took office, and lower than the vast majority of other countries in the region. Tuschman also provides "the New Anti-Semitism" (p. 79) as a prototypical example of left-wing anti-ethnocentrism, defining it as a rejection of "the right of the Jews to have a state of their own like any other nation." One wonders whether such left-wing anti-ethnocentrists would also reject the right of the Palestinians, Catalans, Tibetans, or Kurds to have a state of their own, "like any other nation." This last example points to one of the book's weaknesses: There is insufficient theorizing about how the purely informational content of political beliefs map on to the partially genetic content of political dispositions. Overall, however, *Our Political Nature* is a worthwhile and provocative read, worthy of debate.

Stefan Klein's *Survival of the Nicest: How Altruism Made Us Human and Why It Pays to Get Along* starts with a warning about being too enamored of elegant theory. Darwin's theory of evolution was both elegant and powerful, but at the beginning it faced one glaring contradiction: How could altruism evolve, when the brutal and amoral competition of nature would seemingly always favor the most selfish individual? Herbert Spencer took this contradiction to mean that not theory but reality itself was wrong, in the sense that altruistic policies by the government to help the poor were contrary to nature and should end. Like neoclassical economics today, his theory of Social Darwinism was perfectly convenient for contemporary powerful interests and spread widely—and even after

Social Darwinism itself fell into scientific disrepute, its vision of a fundamentally selfish human nature, *homo economicus*, lived on.

As Klein's book explains, it is not *homo*, but *pan economicus* that exists: only chimpanzees make the kinds of purely "rational" economic calculations ascribed to humans. Separating us from chimpanzees is, again, our immensely greater capacity for cooperation. Since cooperation often yields larger payoffs than individual efforts, an evolutionary pressure arose for a human mind capable of trusting and cooperating. Most importantly, such a mind would have to evolve to evade the dangers of being cheated and exploited—problems that early evolutionary theorists suspected were insurmountable.

While Tomasello focuses on how such a capacity could have arisen in evolutionary history, Klein focuses on the mechanisms that support it. Chief among these are mirror neurons, which may underlie both learning and empathy; vasopressin and oxytocin, which help cement bonds of friendship and cooperation; and the reward centers of our brain, which reinforce both altruistic acts and punishing those who cheat or exploit others.

The first key to the puzzle of altruism and cooperation is empathy. Heart and mind, reason and emotion, are not polar opposites; they are two sides of the same coin. Emotions allow us to escape dilemmas of cooperation by changing the nature of our reasoning itself. By empathizing with a potential collaborative partner, and trusting that our empathy is reciprocated, a calculation between individuals is transformed into a calculation within and for a pair or group. Mirror neurons, present in several species but with a notably large presence in humans, provide empathy its muscle. Through the action of mirror neurons, we are constantly putting ourselves into others' shoes without any conscious act of will. In a very real sense, this blurs the distinction between ego and alter: The joy or pain of another is actually our own joy or pain as well, albeit in a less immediate and visceral way.

The second key to the puzzle addresses the very reason why altruism and cooperation were considered to be an evolutionary puzzle in the first place: How could they persist in the face of cheaters and exploiters who could make off with all of the gains, turning cooperators into suckers? The answer is punishment. Norms of justice and fairness are clearly innate to some extent, and we experience pleasure both when helping others and when we or others punish those who violate our norms. (Schadenfreude is a neurological reality.) Hence the "aggressive egalitarianism" of hunter-gatherer societies: Egalitarianism cannot work unless cheaters and bullies are aggressively punished. Eternal vigilance is not only the price of liberty, but of altruism and cooperation as well.

Even when altruism is exploited, its benefits can still allow it to survive evolutionary pressures. Klein provides the examples of paper wasps, who work for the benefit of a foreign queen who has overthrown their own (genetically related) queen, and birds whose brood has been parasitized by a cuckoo, yet feed all of the chicks in the nest. These are clearly suboptimal results, from a narrow evolutionary perspective; yet the benefits of such altruistic behavior are so large, and the costs required to prevent such cheating are sufficiently high, that even these egregious examples of exploitation are not powerful enough to snuff out altruistic behavior. Likewise in human society, banks may be robbed, and government assistance programs may be gamed; but if kept at a sufficiently low level, even a little cheating will not overwhelm the common benefits to be had from such examples of cooperation and trust.

*Survival of the Nicest* explains how the challenge of altruism and cooperation was overcome within evolutionary theory, while posing a timely challenge of its own to our contemporary societies. Since they are profoundly influenced by a form of competitive, individualistic capitalism once thought to enjoy the exclusive support of evolutionary theory, what to do now that we know it is *not* so supported? Competition, greed, and self-interest swim with the tide of nature—but chimpanzee nature, not our own. The selfishness of our nature is nearly vestigial, while the capacity for empathy, altruism, and cooperation is not only our distinctly human evolutionary innovation, but the key to our success—and happiness.

To the question “is human nature primarily good or bad?” the answer seems clear: it is both. Competitiveness is what we share with our simian relatives; it is the pressure that first created the social intelligence apes have today, and our species had millions of years ago. Cooperativeness, however, is a new addition, and it is both what sets us apart from our animal relatives *and* the key ingredient in our species’ incredible success. Cooperating with others outside of our close kin was a devilishly difficult engineering challenge for evolution, and its existence was a great mystery for evolutionary theorists since Darwin. Now that we better understand how human psychology supports cooperation, we can see that human nature does not conform to either the optimistic or pessimistic views. Ours is a species with a pedigree of competition, but which was born of cooperation. Both propensities are present in our nature; the question now should be, how will we shape our social environment to make best use of them both?

Peter Beattie  
*University of California, Irvine*

### REFERENCES

- Boehm, C. (2012). *Moral origins: The evolution of virtue, altruism, and shame*. New York, NY: Basic Books.
- Dennett, D. (1995). *Darwin's dangerous idea*. New York, NY: Touchstone.
- Funk, C. L., Smith, K. B., Alford, J. R., Hibbing, M. V., Eaton, N. R., Krueger, . . . & Hibbing, J. R. (2013). Genetic and environmental transmission of political orientations. *Political Psychology, 34*(6), 805–819.
- King, Jr, M. L. (1968). The role of the behavioral scientist in the civil rights movement. *American Psychologist, 23*(3), 180–186.
- Sowell, T. (1996). *The vision of the anointed: Self-congratulation as a basis for social policy*. New York, NY: Basic Books.