access to free counseling and mental health support (70–71). She also resists the growing push in favor of mandatory 'open' adoption and advocates for the equal footing of adoptive and procreative parents with regard to control over the relationships that other adults may form and maintain with their children (72–73). The alternative route to equality would be shift to a universal system of 'open parenting', such that neither adoptive nor procreative parents can exclude other adults from their child's life at their discretion—an approach unlikely to benefit most children. At a minimum, then, "the proponents of open adoption must explain why only adoptive parents should not be trusted to make such important decisions on behalf of their children" (73).

Ferracioli's newest offering belongs on the shelf of all philosophers interested in parenthood, childhood, and the role of the state vis-à-vis the family; and perhaps on the shelf of all parents, too. The latter might be daunted by the gravity with which this book treats the (moral and practical) challenges of child-rearing, but they may also find a source of inspiration here.

Teresa Baron
University of Nottingham

Philosophical Review, Vol. 134, No. 1, 2025
DOI 10.1215/00318108-11592468

Dennis L. Krebs, *Survival of the Virtuous: How We Became a Moral Animal*. New York: Oxford University Press, 2022. 282 pp.

In his book *Survival of the Virtuous*, Dennis Krebs explores the origins of human morality. His approach is decidedly evolutionary. Indeed, he contends that the key to understanding our moral nature is considering the adaptive functions of our moral traits. He does acknowledge the importance of cultural and psychological explanations in filling in some of the particulars, but he argues that such accounts can only get us so far if we want to understand the ultimate underpinnings of morality. We are moral beings because it was advantageous for our survival and reproductive fitness to cooperate, and thus it is through evolutionary explanations that we can best understand our moral nature.

The book is divided into three parts. Part 1 explicates the biological underpinning of morality. It is here that he lays the groundwork for his evolutionary account of morality, delving into recent evidence in evolutionary game theory, primatology, and anthropology. In part 2, Krebs examines prominent psychological accounts of morality but concludes that such accounts are incomplete, as they are only able to address the activation and development of moral

mechanisms and not the deeper question of ultimate function. Finally, part 3 puts forward evolutionary explanations for our motivations to instantiate particular virtues. Philosophers should know that Krebs pursues an almost entirely *descriptive* enterprise. In the final chapter, he does briefly consider how his account might weigh in on certain normative views (e.g., Joshua Greene's dual-process theory), but his discussion is cursory (as he acknowledges) and does not attempt to advance these dialogues in any substantive way.

In part 1, Krebs argues that moral traits evolved to help individuals "reap the benefits of cooperation" (42). Our ancestors were ill equipped to survive on their own, and thus it was only through their sociality and cooperation that they were able to thrive and reproduce. However, they needed to be careful about exploitation by selfish individuals. The result was a set of traits and tendencies that motivated individuals to not only behave cooperatively but also punish those who behaved selfishly. This, for Krebs, is core of morality. Indeed, "ideas about right and wrong, good and bad, virtues and vices equate to ideas about practices and traits that uphold and jeopardize … cooperative social orders" (48).

Krebs defends this with evidence from primatology, anthropology, and evolutionary game theory (which uses computer simulations to study the costs and benefits of different cooperative strategies). For those unfamiliar with the literature on the biological origins of morality, these sections will be a useful overview. He points out some of the protomoral tendencies of our primate ancestors and then examines evidence about our more recent hunter-gatherer ancestors during the Pleistocene. He accepts the current paradigm that our hunter-gatherer ancestors were fairly egalitarian, with group members actively preventing alpha males from garnering too much power. It was only recently, with the advent of agriculture around twelve thousand years ago, that human groups became too large and complex to sustain their egalitarian structure, and instead adopted the hierarchical systems that we see today.

Most contemporary works that reference the historical development of human groups stop there, but I was happy to see Krebs put forward a more nuanced assessment of modern human group structure. Specifically, if we look closer, we can see our ancient egalitarian tendencies still at work in the smaller groups that we are personally connected to on a daily basis (that are—perhaps not so coincidentally—about the same size as ancient hunter-gatherer bands) such as labor unions, sports teams, academic departments, and committees (95).

One worry I have about this literature is that it collects much of its data from extant hunter-gatherer groups. Can anthropological assessments of modern hunter-gatherers really tell us what our ancestors were like? There are obvious impediments such as the fact that virtually all of the hunter-gatherer groups that have been studied have come into contact with modern society, in some way or another. But there are also less obvious complications. Perhaps the

groups that are more likely to allow anthropologists to observe them and ask questions about their culture are more egalitarian, while the more hierarchical groups are less friendly to outsiders (which could manifest in all sorts of ways, such as clan members not allowing anthropologists to observe important rituals or even being less forthcoming when answering questions), and this has led to the data being biased toward egalitarian groups. Of course, this is not a criticism aimed at Krebs; it is a worry about the field as a whole. But it is one that I have yet to see adequately addressed.

In part 2, Krebs explores three of the most prominent psychological accounts of human morality. Social learning theory posits that children (passively) learn about moral norms from their parents and other authoritative figures. Cognitive developmental theory maintains that children go through increasingly sophisticated (and more agentially active) stages of moral development, culminating in adult level moral understanding. Finally, there is dual-process theory, according to which there are two kinds of moral decision-making: moral decision-making that is emotional, intuitive, unconscious, and frugal ("Type 1"), and moral decision-making that is rational, reflective, conscious, and controlled ("Type 2").

Krebs acknowledges the value of all three of these paradigms but argues that they can only get us so far when considering the origins of human morality. Indeed, psychological theories help us understand some of the cognitive mechanisms that generate moral thought and intuition, but they cannot tell us why a particular cognitive mechanism exists in the first place, and what its ultimate function is. To achieve this fuller picture, we must amend these theories with evolutionary science. Being a psychologist, Krebs is in his element in this part of the book, and he provides some engaging and novel suggestions on how to reframe these research paradigms in the context of evolutionary theory that should be of interest to both the expert and layperson. (I also enjoyed his personal anecdotes about Lawrence Kohlberg.)

Finally, in part 3, Krebs puts forward evolutionary explanations for our motivations to instantiate particular virtues. Here they are in brief. Self-control evolved to help us manage and suppress our selfish desires. Purity evolved to help us avoid health hazards (via disgust mechanisms) and was later co-opted to make judgments about character (e.g., "She is tainted"). Honesty, loyalty, and empathy evolved to motivate us to be (and be seen as) reliable cooperative partners. Respect for authority evolved to improve the survivability of individuals low on the status hierarchy (e.g., children). Justice evolved to "motivate us to correct imbalances that threaten beneficial cooperative relations" (198).

One notable aspect of morality that Krebs neglects to explore is the fact that we view moral norms as *objective* or *externally imposed*. This discussion has a long and interesting history. For instance, Richard Joyce (2006) argued that such externalization motivates us more effectively than mere subjective preferences. Recently, however, P. Kyle Stanford (2018) has rejected this view in

favor of an evolutionary explanation more in line with the cooperation centered account that Krebs advocates. Weighing in on this discussion would have helped fill in some of the gaps about why in fact we are motivated to instantiate the kinds of virtues Krebs considers.

At this point, I have summarized the book, making some comments and assessments along the way. I now want to step back and explain what I view to be the book's most significant shortcoming. To do this, we must return to the discussion of evolutionary game theory. After acknowledging that game theory has yielded some valuable insights, Krebs argues that a significant problem with this kind of research is that it assumes that human cooperative strategies are "hard-wired" (55) like they are for the computer programs, whereas actual human moral strategies are much more complex, invoking "a wide array of developmental, environmental, and cultural factors" (62).

This criticism is not all that charitable to evolutionary game theory. I do not believe there are many (if any at all) game theorists who claim that these kinds of cooperative strategies are "hard-wired" into humans. Game theory tells us which cooperative strategies perform well in particular environments, but there is no claim that this perfectly reflects behavior. With that said, his broader point is correct. It is indeed true that human moral strategies are the result of a complex network of evolutionary, developmental, environmental, and cultural factors. Throughout the book, though, he often does not appreciate the importance of this idea. A few pages after his discussion of evolutionary game theory, he brings up the age-old objection that evolutionary accounts frequently run into: we often act in ways that are counter to our evolutionarily instilled interests, and this seems to indicate that our behavior is not genetically determined in the way an evolutionary account like his suggests (60).

This would have been an excellent opportunity to remind us of his aforementioned point about the complexity of human moral behavior. Specifically, he could have explained that while an evolutionary understanding of human moral behavior can account for our basic moral tendencies and inclinations, we must also look to cultural, environmental, and developmental factors to understand the full complexity of moral judgments, moral norms, and moral knowledge. Instead, though, he asserts that all these behaviors that are supposedly counter to our fitness interests can actually be explained evolutionarily (they pay off genetically in the long term, they are by-products, etc.).

These explanations come off as just-so stories and are reflective of a broader issue in the book. Krebs does claim that he appreciates the importance of culture, development, and environment, but when it comes to particular explanations of tendencies or traits, it almost always comes down to evolution. Indeed, his chapter on culture focuses on evolutionarily instilled capacities that enable us to "create, refine, and transmit" culture, but there is no discussion of the cultural factors that have been important in the development of morality (101). This is a problem, as it means that he leaves unaddressed some of

the most important questions about human morality. For instance, why do we see such cross-cultural variation in moral norms? And why is it not the case that moral norms are merely cultural solutions to recurrent problems of social interaction? Through addressing these (and other related) questions, I believe his account would have been more nuanced insofar as it kept the important foundation that evolution played but also delved more deeply into the complex relationship between evolution, environment, and culture.

References

Joyce, Richard. 2006. *The Evolution of Morality*. Cambridge, MA: MIT Press.

Stanford, P. Kyle. 2018. "The Difference between Ice Cream and Nazis: Moral Externalization and the Evolution of Cooperation." *Behavioral and Brain Sciences* 41: e95. https://www.doi.org/10.1017/S0140525X17001911.

Michael T. Dale
Hampden-Sydney College

Philosophical Review, Vol. 134, No. 1, 2025
DOI 10.1215/00318108-11592493

Jeff Sebo, *Saving Animals, Saving Ourselves*.
New York: Oxford University Press, 2022. xvii + 249 pp.

Much "animal ethics" tends to focus on how nonhuman animals matter for the ethics of individual choices. This book is a welcome complement to that focus, providing a valuable guide to thinking about large-scale issues confronting humanity, with a specific focus on climate change and pandemics. The distinctive aim of the book is to introduce these issues in a way that

- takes seriously the ethical significance of nonhuman animals, and
- recognizes important deep uncertainties both about the world and about ethics.

Sebo's central thesis is that public policy and advocacy should take nonhuman animals into account, both centrally and noninstrumentally. I understand the book as having three distinctive parts: chapters 2–4 make the core case for Sebo's thesis, chapter 5 lays out an excellent schematic proposal for *how* we should include consideration for nonhuman animals in policy and advocacy, while chapters 6–8 provide a crash course in some of the vexed issues that arise when we take that project seriously.