Pascal Boyer,*Minds Make Societies: How Cognition Explains the World Humans Create* (New Haven, CT, Yale University Press, 2018). 376 pages. ISBN: 9780300223453. Paperback $20.00

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Why are there conflicts between groups? Why do humans believe and spread low-quality information such as rumors and fake news? Why are there religions? Why are humans sometimes cooperative, while at other times, they are very uncooperative? In his new book, *Minds Make Societies: How Cognition Explains the World Humans Create*, Pascal Boyer takes on these and other timely and timeless questions in social science. His mission is to put flesh on the bones of his key argument: "There is no good reason why human societies should not be described and explained with the same precision and success as the rest of nature" (p. 1).

Drawing on important developments from disciplines such as evolutionary biology, economics, and anthropology, Boyer seeks to illustrate why we need to move beyond the notion that human societies can be understood independently of the evolved human mind. In short, *Minds Make Societies* is an engaging book that infects the reader with Boyer's curiosity, extensive insights, and excitement about how various disciplines can and already are converging on a unified understanding of human behavior and human societies.

The book can be divided into three parts. In the first part, Boyer lays bare why a unified understanding of human behavior is necessary to achieve cumulative progress in the social sciences akin to that in the natural sciences. He follows in the footsteps of scholars such as E. O. Wilson (1998), who famously called for consilience: the unity of knowledge. This part of the book pins down a number of rules that should shape how we think about the human mind and research on human societies.

In conveying these rules, Boyer continuously contrasts how the mind works from a scientific point of view with how the mind works from our spontaneous "theory of mind" point of view. This is a clever and thought-provoking way of explaining complicated insights from the cognitive sciences, as it invites readers to confront their own intuitions when thinking about social phenomena. For example, we as humans tend to think that there is one central control unit in our minds that governs a consistent set of preferences (p. 24). But if this is true, why do people prefer to drink water from a glass labeled "water" rather than water from a glass labeled "cyanide," even when they know the water is poured from the same pitcher? Boyer uses this illustration (and many others) to explain that the human mind is composed of many specialized inference systems that work beneath conscious awareness and that these systems often generate mismatches between our beliefs and our behavior. So, while one system in our brain knows the glass contains harmless water, another system (for threat detection) is activated by the label "cyanide," creating conflict between what we know and what we do.

Another theme in the introduction is that we can improve our ability to ask and answer important questions if we distance ourselves from our spontaneous intuitions about what is odd and what is normal in human behavior. To achieve this distance, Boyer argues that we must adopt an evolutionary standpoint because, when viewed through an evolutionary lens, human societies no longer appear self-evident; instead, they become puzzling phenomena in need of an explanation—such as why we help others in need. Another key argument is that social scientists should "ignore the ghosts of theories past" (p. 28). Here, Boyer argues that social science is plagued by a nonsensical trench warfare about whether human behavior can be attributed to nature or nurture. Instead of this dichotomized view, Boyer calls for an interactionist understanding of human behavior, a position whose fruitfulness he justifies throughout the remainder in the book.

Having set the stage for a unified research approach, the second part of the book takes on six social scientific problems that, in Boyer's view, require explanation: (1) What is the root of group conflict? (2) What is information for? (3) Why are there religions? (4) What is the natural family? (5) How can societies be just? (6) Can human minds understand societies? In discussing these problems, Boyer does not propose a grand theory of how societies work, but he does insist that all phenomena, such as civil war onset, superstition, gender relationships, and the collapse of the Soviet Union, can be understood if we draw on insights about how the human mind works.

To drive home this point, he draws on a body of cutting-edge research to illuminate these wide-ranging social phenomena. In Chapter 2, for example, he delves into why humans are susceptible to conspiracy theories, urban legends, divinations, rumors, and fake news and why we spread this kind of low-quality

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information. The chapter is very timely because the notion that we are moving into a post-truth era seems to be gaining traction. Of course, humans have always been prone to believing and transmitting absurd ideas. For example, Boyer discusses penis thieves and witches. But what explains this tendency? Boyer points to different psychological mechanisms that play a role, but most importantly, he argues that the human mind did not evolve to acquire information that is true but rather information that is useful (i.e., information that is expedient for survival and reproduction). Information is useful, for example, if it can help muster social support and mobilize coalitions against a threat or out-groups, regardless of whether the information is true. He writes, "Humans need social support, and they need to recruit other individuals to join collective actions of various kinds, without which there is no individual survival" (p. 84). Although Boyer does not address these directly, these insights are intriguing in light of current issues of political polarization in the United States and Europe, such as the election of Donald Trump and the British exit from the European Union—political issues in which truth and solidarity are prominent fixtures.

The third part of the book concludes by further discussing how our approach to studying human societies needs to be reshaped. It zooms in on some of the most central concepts within social science: culture and tradition. Boyer argues that these concepts have led to a lot of theoretical confusion. In particular, they have often served as tautological explanations for various social practices. Boyer offers a way forward by laying a foundation for how we can fruitfully conceive of these concepts and how we can disentangle explanans and explanandum in dealing with culture and traditions.[1] This discussion should be of interest to many social scientists, but it especially appeals to anthropologists and scholars interested in philosophy of science.

Combined, the three parts of the book make a convincing case for the notion that we need to break down the barriers between different scientific disciplines rather than putting on new sets of theoretical glasses every time we move from one area of research to another. To convince the reader, Boyer focuses on demonstrating the explanatory power of a unified evolutionary approach instead of criticizing specific existing theories. His critique is primarily directed at common ways of thinking in social science—for example, how it does not make sense to treat culture as an external entity that can explain human behavior and why it is theoretically problematic to divide the world into nature and culture. In constructing his argument, Boyer often does not directly name the theories he criticizes. This may be considered a limitation for engaged readers who would like a more elaborate discussion with the paradigms that the book critiques. It could, for example, entail that practitioners of these theories would be less likely to offer critical replies.

Minds Make Societies does not present novel data, but it draws on an impressive amount of cutting-edge research to illuminate the connections between psychological models and a wide range of small- and large-scale social phenomena. In this way, the book provides a much-needed illustration of the broader relevance of an evolutionary approach. While the breadth of empirical topics covered is a strength of the book, it can, of course, also be a limitation if a reader is interested in delving into specific topics. There is also no doubt that the book will fuel a lot of debate about whether Boyer's mission is reductionist. However, anticipating the reductionist critique, Boyer argues that the warnings against reductionism often lead people to dismiss the fruitful insights from research fields below them in the hierarchy of science and thereby harm the potential for cumulative scientific progress—for example, that political science can be informed by psychology, which is informed by biology, and so on (p. 277).

In sum, *Minds Make Societies* is an ambitious book that deserves a wide audience. Although the language may be more difficult than most educational books, it is nevertheless well suited for students and new comers to the evolutionary approach, because it introduces key ideas from evolutionary psychology and shows how these can be applied in a thought-provoking manner. But most importantly, for scholars—whether from economics, political science, anthropology, psychology, or other fields—the book reveals that different research areas have more in common than we may realize in our daily work. In this way, the book will hopefully inspire more researchers to engage in interdisciplinary research.

[1]Explanandum are sentences that describe a phenomenon to be explained, and explanans are sentences offered as explanations of that phenomenon (see Hempel and Oppenheim 1948).

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