

HUMAN BEHAVIORAL BIOLOGY: IT'S COMPLICATED

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A Review of the Book

Behave: The Biology of Humans at Our Best and Worst

By Robert M. Sapolsky. 2017

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Terms like “brilliant,” “magnum opus,” or “tour de force” are often thrown around in book reviews. However, I would be remiss to claim that this book is anything but those things.

If you’ve read a Sapolsky book before, you will feel right back at home with *Behave*. It’s full of the same witty, conversational style as *Why Zebras Don’t Get Ulcers* and *The Trouble with Testosterone*. The text is engaging and cohesive, and the jargon that is used is explained well. To supplement the breadth of topics and disciplines covered in the book, Sapolsky includes three appendices on the basics of neuroscience, endocrinology, and proteins, allowing both seasoned scientists and the general readership to comprehend and enjoy the book. As with any writer hoping to reach a wide audience, nuance is often smoothed over. Sapolsky encounters some of this due to the sheer size of the book, and scientists familiar with a particular topic will occasionally find themselves sometimes saying “well yes, but...” However, none of these instances were distracting for me and, in fashion with his other books, Sapolsky often places caveats in the forest of footnotes throughout the chapters.

The book is split up into two main parts. In the first half of the book, Sapolsky guides the reader through the inner workings of the brain, endocrine system, and human development. Working through the foundations of the biology of human behavior, Sapolsky explains the relevant biology that occurs a second before, minutes before, hours

before, days before, and months before. He then moves on to adolescence, infancy, and fertilization before diving into the deep evolutionary history of behavior. Sapolsky bridges Tinbergen's four questions to synthesize a holistic account of why humans do the things we do. Along the way, he tackles the some of the more misunderstood bits of biology related to human behavior, especially in relation to hormones. First he brings in everything you thought you knew about a topic such as oxytocin – the “love hormone” – or about testosterone – the “aggression hormone.” Following this, Sapolsky incisively cuts through the popular notions to get at a more nuanced picture. Testosterone doesn't make a person more aggressive – it makes them do whatever is necessary to maintain status. Sometimes that's cooperation. Oxytocin does increase prosociality, but only towards an in-group. As Sapolsky puts it, oxytocin isn't a universal love hormone, it's a parochial one.

The first half of the book builds the mechanistic foundation for the second half of the book, which focuses on the real-world implications of the biology of human behavior. If you feel confident in your understanding of behavioral biology mechanics, you can probably skip the first part of the book and go straight to the second half and the meat of the argument – how do these mechanisms play out on the larger scale and what are the implications? However, reading the book in its entirety really brings out its brilliance, and I found myself being refreshed on some of the more nuanced aspects of behavioral biology throughout the first half of the book. At any rate, if you are looking for a succinct, linear book on some specific aspect of human behavior such as cooperation or stress, this isn't it. If, however, you are looking for something akin to an accessible human behavioral biology bible, this might be the closest thing to it.

Sapolsky's knack for storytelling combined with his encyclopedic knowledge of several scientific disciplines leads to a book that is difficult to put down. In many parts, it reads like like a good scientific history book through its anecdotal recollections of some of the more interesting experiments on behavioral biology. Of course, as with any book written for a large audience, the cherry-picked reporting of experiments can make the science seem much sexier than it actually is. There were also a few times where I felt like Sapolsky went a bit too far down the rabbit hole and began to ramble, but overall the book was tied together very well given its lofty ambitions. Many of the chapters also have a convenient, bullet-pointed conclusions page to sum up the major themes and findings. There is also an epilogue with three pages of bullet-pointed takeaways from the book.

The main point of *Behave* is that when it comes to human behavioral biology, the rule is context, context, context. Also stressed is the importance of moving beyond bounded disciplines such as neurobiology, molecular biology, psychology, anthropology, and others when explaining human behavior. As Sapolsky states in the introduction to the book, “when you explain a behavior with one of these disciplines, you are implicitly evoking all the disciplines” (pg 7). Whereas a reader would usually require an entire shelf dedicated to books explaining various aspects of human behavior, Sapolsky has done the hard work of synthesizing the explanatory perspectives of these disciplines into a single book.

I can't count how many times I read the phrase “stay tuned for the final chapter(s)” after an interesting point. This grew a bit frustrating at times and hyped up the last chapter quite a bit. However, the final chapters didn't disappoint. They contained some of the juicier topics in behavioral biology, the macro-level implications, and the

conclusions were well founded from the earlier chapters. For example, no book on the biology of behavior is complete without a discussion on free will. Sapolsky plants this discussion in one of the last chapters, entitled “Biology, the Criminal Justice System, and (Oh, Why Not?) Free Will.” This was one of my favorite chapters of the book, in which Sapolsky draws out the impacts (or lack thereof) of neuroscience and behavioral biology at large on the criminal justice system. In the process, he sets aside the myth of the homunculus and explains how all behavior is biology. Furthermore, he dismantles the common dichotomy of grit vs. talent being about willpower vs. biology, arguing that even willpower is made up of biology, but that it includes a more complex set of interacting features that occur throughout development.

Behave was one of most enjoyable and informative non-fiction books I've had the pleasure to read. Living up to his reputation as a bard of behavioral biology, Sapolsky deftly maneuvers between the disciplines of neurobiology, psychology, physiology, and anthropology to tell the story of human behavior vis-à-vis biology – at its best and and its worst.

ABOUT THE AUTHOR

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