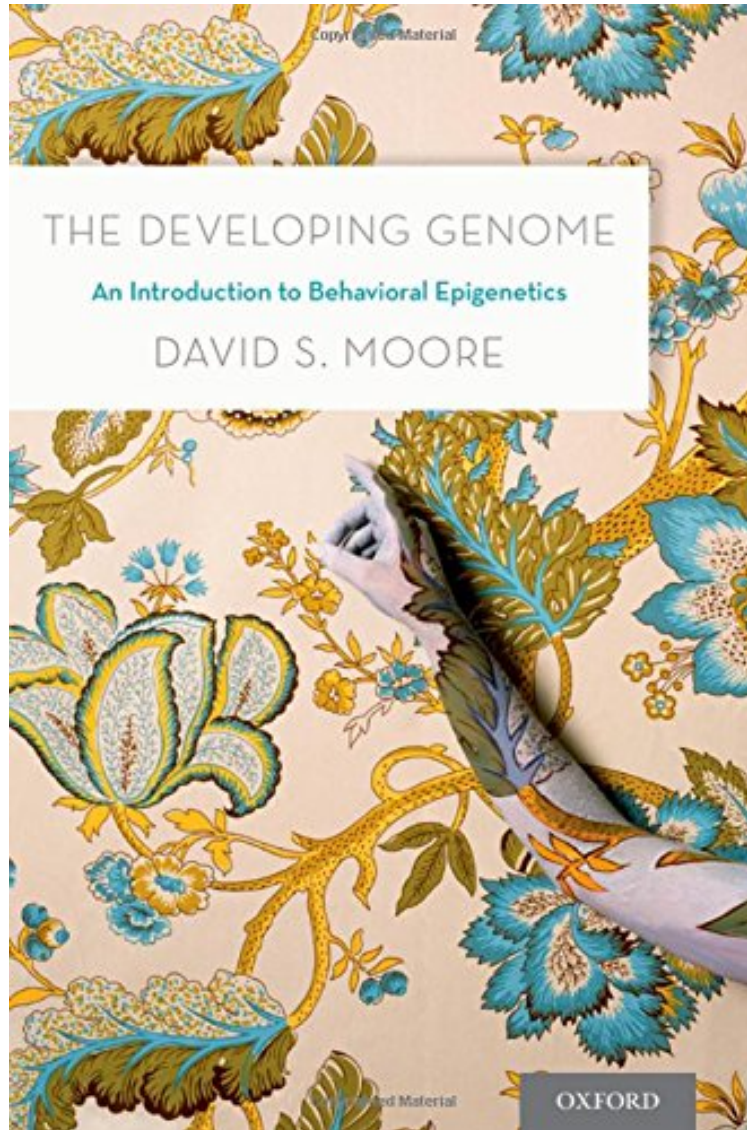


(Read now) The Developing Genome: An Introduction to Behavioral Epigenetics

The Developing Genome: An Introduction to Behavioral Epigenetics

David S. Moore

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David S. Moore : The Developing Genome: An Introduction to Behavioral Epigenetics before purchasing it in order to gauge whether or not it would be worth my time, and all praised The Developing Genome: An Introduction to Behavioral Epigenetics:

15 of 16 people found the following review helpful. Wonderful, concise, well-written introductionBy gdeakThe Developing Genome is a timely and excellent offering for those interested in psychology, child development, and science studies, but little background in college-level biology. It is a skillfully written book that should be required reading for psychologists (researchers, practitioners, and arm-chair), anthropologists, sociologists, etc. The biological

sciences have advanced by leaps and bounds since the 1980s, and the social sciences, as taught from high school through graduate school, have frankly not kept up with this revolution. Those fields are in serious need of continuing education. No subfield of psychology is in greater need than developmental psychology, where some recent books by eminent scholars present studies in ways that suggest blissful ignorance of the tectonic upheavals in genetics and epigenetics, and their implications for brain development and behavior. Like it or not, psychology as a field, developmental psychology in particular, and the social sciences more broadly need to catch up. Moore's book can make inroads against this anachronistic state of affairs. The content is accurate and up to date. Yet Moore, a developmental psychologist by training, has taken the field of epigenetics, which is extraordinarily complex in ways that no one could have imagined 20 years ago, and made its fundamentals digestible. The writing is clever and engaging: Moore simplifies processes that are weird or even unimaginable from the perspective of 1980-1990s biology, and builds up to them step by step, making their fundamental facts comprehensible. For those who have heard about epigenetics and wonder what all the fuss is, the book will be a revelation. A strength of the book is that pros working scientists outside biology will enjoy and learn from it. But it's also appropriate for undergraduates, and for curious and intellectually oriented non-scientists. One device that helps with this is, a Zooming In chapter after each major chapter, which goes into greater depth (about, e.g., the structure of DNA, the role of experience in transcriptional outcomes, etc.). Readers can either tackle the Zooming In chapters, or skip them and stick to basics. Those who choose the latter will have a very manageable reading experience indeed, but those who take on the whole enchilada will be more rewarded, not overwhelmed. Moore builds up to final chapters that focus on research in primates and research on memory. These topics, though only starting to be understood in terms of epigenetic factors, will be relevant to those interested in psychological outcomes, evolution, and primatology. The book is not just thoughtfully organized, but also well indexed and referenced. In sum, *The Developing Genome* is a pretty straightforward, balanced, well-crafted explanation of the most important advances in a critically important, but highly confusing, area that is fundamental to all of the life sciences, behavioral sciences, and social sciences.

3 of 3 people found the following review helpful. Perception changing - nature nurture laid bare for all. By Melissa David S Moore has written a confident meticulous book that details the most recent cutting edge empirical studies in the field of behavioural epigenetics. Most importantly, he demonstrates a major paradigm shift from the seemingly redundant notion of genetic determinism, which still remains ubiquitous in common perception, to a more complete testable theory of the nature nurture dichotomy in terms of interaction. Chapter by chapter he provides both an inclusive account of current research methods and findings in epigenetics for the interested nonscientist, and "zooming in" chapters for those who want a deeper explanation of the molecular mechanisms at play in the development of phenotypic traits. Moore delivers a fascinating critique of the controversial heritability statistic derived from classic twin studies, shows how and why common metaphors to explain genetics are faulty, and debunks all claims that partition the variance between gene and environment. As a profound perception changer of how genomics work, this book is a major accomplishment and a must read for anyone who wishes to understand and debate conceptions of nature/nurture. Highly recommended.

3 of 4 people found the following review helpful. Behavioral genetics for the nonbiologist. By David Bjorklund. Epigenetics is one of the hottest topics in the biological sciences, and it will soon be a hot topic in the behavioral sciences. David Moore's engaging style, eloquent prose, use of clear examples, and grasp of the relevance of epigenetics for behavior and development make this complicated topic accessible for the nonbiologist. At one level, we've long known that something turns genes on and off during development, so eyes, for example, don't sprout on one's elbows or fingers grow from one's liver, and biologists have known for decades that this process was epigenetics. But new research is showing how these same epigenetic processes are turning genes on and off as a result of experience, with some effects being transmitted across generations as epigenetic inheritance. An understanding of epigenetics is going to be important for anyone seriously interested in any of the behavioral sciences. I've read the few trade books available on epigenetics, and David Moore's *The Developing Genome* is the best source to date to grasp an understanding of this important topic.

Why do we grow up to look, act, and feel as we do? Through most of the twentieth century, scientists and laypeople answered this question by referring to two factors alone: our experiences and our genes. But recent discoveries about how genes work have revealed a new way to understand the developmental origins of our characteristics. These discoveries have emerged from the new science of behavioral epigenetics--and just as the whole world has now heard of DNA, "epigenetics" will be a household word in the near future. Behavioral epigenetics is important because it explains how our experiences get under our skin and influence the activity of our genes. Because of breakthroughs in this field, we now know that the genes we're born with don't determine if we'll end up easily stressed, likely to fall ill with cancer, or possessed of a powerful intellect. Instead, what matters is what our genes do. And because research in behavioral epigenetics has shown that our experiences influence how our genes function, this work has changed how scientists think about nature, nurture, and human development. Diets, environmental toxins, parenting styles, and other environmental factors all influence genetic activity through epigenetic mechanisms; this discovery has the potential to alter how doctors treat diseases, and to change how mental health professionals treat conditions from schizophrenia to

post-traumatic stress disorder. These advances could also force a reworking of the theory of evolution that dominated twentieth-century biology, and even change how we think about human nature itself. In spite of the importance of this research, behavioral epigenetics is still relatively unknown to non-biologists. *The Developing Genome* is an introduction to this exciting new discipline; it will allow readers without a background in biology to learn about this work and its revolutionary implications.

Winner of the 2016 William James Book Award
Winner of the 2016 Eleanor Maccoby Book Award
"David Moore's description of the complex discoveries in epigenetics is a tour de force—it allows all readers to appreciate the significance of these unexpected phenomena. *The Developing Genome* is required reading for all who wonder about the power of genes." --Jerome Kagan, PhD, Daniel and Amy Starch Professor of Psychology, Emeritus, Harvard University
"Epigenetics is one of the hottest topics in biology these days, and that certainly makes sense—it helps explain on a nuts-and-bolts level precisely how experience, especially early in life, leaves long-lasting effects on our bodies and our behaviors. Not surprisingly, it's also a complex subject to understand, and is vulnerable to hype and inflated promises. There's no one better than David Moore to write a book like this—he knows the field inside out and writes about it in a way that is insightful, appropriately skeptical at points, and utterly clear and accessible to the interested non-scientist. This is a terrific book." --Robert M. Sapolsky, PhD, John A. and Cynthia Fry Gunn Professor of Biological Sciences, and Professor of Neurology and Neurological Sciences, Stanford University
"Every dogma has its day, and the once-vaunted central dogma of molecular biology has seen better ones. A steady stream of surprising findings emerging from the rapidly growing field of behavioral epigenetics is showing us how our DNA does not legislate from above, but is rather a participant in a highly interactive developmental system. It is from this system that our behavior and psychology emerge. In his wonderfully informative and accessible new book, David Moore proves himself a skillful guide to this very complicated and vast new field. For readers hoping to understand what all the excitement is about without drowning in a sea of jargon, they need look no further." --Mark Blumberg, PhD, F. Wendell Miller Distinguished Professor in the Departments of Biology and Psychology, University of Iowa
"Reading David Moore's explanation of epigenetics is relevant for anyone who is interested in health and behavior as an aid in making appropriate life decisions, or from an academic perspective. This authoritative, intriguing, practical, and wise book helps steer us away from the tradition of assuming that genes are deterministic, and towards a better understanding of how life experiences can alter the genomic heritage that all parents share with their children." --J. Steven Reznick, Professor of Developmental Psychology, University of North Carolina, Chapel Hill
"[*The Developing Genome*] show the limitation of the blueprint metaphor of genomes for something so intricate, complex, multilayered and dynamic. [It] underscore[s] the risks of taking metaphors too literally, not just in undermining popular understanding of science, but also in trammelling scientific enquiry. They are for anyone interested in how new discoveries and controversies will transform our understanding of biology and of ourselves. Behavioural epigenetics is a controversial field, with critics arguing that many of its findings are little more than correlation and conjecture. Moore is suitably sceptical without shying away from the more contentious areas." --Claire Ainsworth, New Scientist
"Moore's book joins Jablonka and Lamb's text as a new standard in epigenetics literature. It is a compulsively readable account of one of the most vibrant areas in science that is well-researched, well-written, and thought-provoking from beginning to end. For both general readers and interdisciplinary scholars, *The Developing Genome* can be considered the logical starting point to acquaint themselves with a field that is quickly becoming impossible to ignore." --Derek Lee, Pennsylvania State University, Project MUSE
About the Author
David S. Moore is a professor of psychology at Pitzer College and Claremont Graduate University in southern California. He received his PhD in developmental and biological psychology from Harvard University. A developmental cognitive neuroscientist with expertise in infant cognition, Moore explores the contributions of genetic, environmental, and epigenetic factors to human development. His book *The Dependent Gene* was widely adopted for use in undergraduate education and was nominated for the Cognitive Development Society's Best Authored Volume award.