BOOK REVIEW

The Aesthetic Brain: How We Evolved to Desire Beauty and Enjoy Art by Anjan Chatterjee, Oxford University Press, 2014, 248 pp. ISBN 9780199811809. $34.95

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Owing mostly to historical reasons, evolutionary aesthetics and neuroaesthetics have remained largely independent from each other. Evolutionary aesthetics has its roots in evolutionary psychology and human sociobiology, and neuroaesthetics was born mainly from the work of neuroscientists. Both flourished, for the most part, undisturbed by each other. Only an excessive reverence for the boundaries and histories of disciplines, which undoubtedly provide structure and coherence to the work within them, can explain the paradox of studying the evolution of aesthetics with little reference to the brain, and studying the neuroscience of aesthetics with little reference to evolution. The benefits of integrating evolutionary and neuroscientific approaches to cognition have come into focus with the birth of evolutionary cognitive neuroscience (Platek, Keenan, & Shackelford, 2007; Platek & Shackelford, 2009).

In The Aesthetic Brain, the neurologist Anjan Chatterjee, member of the Center for Cognitive Neuroscience and the Center for Neuroscience and Society at the University of Pennsylvania, provides an introduction to the scientific study of aesthetics that blurs the limits between neuroaesthetics and evolutionary aesthetics. More specifically, Chatterjee makes them work together. Cognitive neuroscience—he argues—can address the “How of aesthetics” (p. xii), and evolutionary psychology, the “Why of aesthetics” (p. xii). He achieves this synthesis by weaving together arguments based on evidence from psychology, biology, art history, philosophy, or neuroscience.

The book covers three main topics—beauty, pleasure, and art—in a manner suitable for both interested laypeople and experts. The section on beauty is articulated around the notion that beauty is sought because it gives us pleasure. This leads Chatterjee’s argument to pleasure, the focus of the book’s middle section. The book closes with the section most readers might link with aesthetics: art. Chatterjee does not hem and haw around the big research questions: What is beauty? What is pleasurable, and why? Is art a by-product of evolution or is it an instinct that confers adaptive advantages? Most importantly, he also does not fall short on providing answers to these questions; whether these are compelling or not, readers will have to decide for themselves.

The first section covers beauty. In 10 chapters, nearly all facets of beauty are covered. The most important findings from typical research areas of beauty—human faces, human bodies, and landscapes—are presented in a lighthearted manner. Chatterjee does not dwell on details of experimental designs, but he does explain the main methods and paradigms featuring in the entire book. A short overview of brain organization is followed by a more specialized discussion of brain areas involved in processing beauty. The chapters are clearly written and easy to follow. However, because these are introductory chapters, some images showing the location and connection of the main regions involved would have helped nonspecialists visualize and organize this information better. In the subsequent chapter, the paradigm of evolutionary psychology is introduced. With the help of hoodoos—tall spires of rock typically topped with a large stone—he clearly explains the basics of evolutionary psychology. These chapters help interested laypeople to approach the topic of aesthetics. Experts, on the other hand, can confidently skip most of the thematic chapters in this section. This first section concludes by explaining our interest in beauty: We seek beauty because it gives us pleasure.

In turn, the second section’s six chapters deal with pleasure. With colorful research evidence, but also anecdotes from his clinical practice, Chatterjee reviews mainly neuroscientific evidence on pleasure derived from food and sex. In the subsequent chapter on money, Chatterjee strays into the field of decision making, presenting popular findings such as, for example, the endowment effect and the prospect theory. He succeeds in elegantly weaving these topics into a smooth and flowing argument. The section closes with two chapters bringing the strands of beauty and pleasure together. Chatterjee first explains the distinction between liking—the pleasure we derive from something—and wanting—the desire for something. Then he paves the way for the next section on art by working out the differences between pleasures derived from food, sex, or money and pleasures derived from visual art. The section ends with the claim that “art, as we encounter it today, is largely an accident” (p. 112)—a strong claim, which, of course, is intended to arouse and grip the reader.

The section on art, more precisely, visual art, is the book’s climax. Here, Chatterjee gets down to brass tacks: What is art? What is the origin of art, and how did it evolve? To answer these questions, he combines evidence from neuroscience, evolution, and humanities. He bridges the gap between science and the humanities by acknowledging the contributions of both fields to aesthetics, by stressing the importance of meaning and understanding for an aesthetic experience, and by showing and accepting boundaries of neuroscience in studying aesthetics. The book concludes by examining the question of whether art is adaptive or a by-product. Theories advocating both views are presented, but Chatterjee offers us a third, middle route. He speculates that art may serve an adaptive purpose in certain situations but not in others, combining an evolutionary approach with a cultural approach. He provides some indications supporting his position, but hard empirical evidence is lacking.

Taken together, Chatterjee has written a gripping and readable book on aesthetic science. Some might see his conversational style as a shortcoming of the book. Though the arguments are sound, logic, and properly grounded in the literature, the general tone is less formal. Sometimes he sacrifices the full picture for a strong argument or offers speculative ideas. In Chapter 9, for instance, no evidence accompanies his argument on the adaptive value of preference for numbers in the Pleistocene. He does, however,
acknowledge the speculative nature of this argument. Chatterjee’s intentions are more to demonstrate, ignite interest, and make clear points than to meticulously weigh and qualify findings from numerous examples of research. Additional illustrations would have undoubtedly helped paint a more vivid picture; the book only includes two figures. This, on the other hand, makes for an affordable book.

Readers, however, will be disappointed if they expect to find page after page of laborious scientific evidence on brain regions or imaginative speculations about early humans. This book has much more in store for the reader. In a concise and agile manner, Chatterjee touches on many different topics related to aesthetics. By posing questions during, and especially near the end of, the chapters, Chatterjee gives the reader plenty of food for thought. These questions, together with short summaries interspersed in the text, helps the story to stick. Experts in related fields will find their fair share of challenging arguments, gaps, and claims that need further testing. Interested laypeople will certainly get a comprehensive picture of aesthetic science from soup to nuts. All in all, thus, Chatterjee’s book on aesthetics fits the bill. It is definitively a great addition to Oxford University Press’s recent titles on the science of aesthetics (Bacci & Melcher, 2011; Davies, 2012; Schellekens & Goldie, 2011; Shimamura, 2013; Shimamura & Palmer, 2012), and a tough one to follow for others that are already in the pipeline.

Finally, there is a distinctive duality to Chatterjee’s volume. In one sense it is uniquely personal; in another, it is plural and public. Clearly no one else could have written this book. Not only does Chatterjee present his own particular take on beauty, pleasure, and art—the anecdotes and personal experiences from clinical practice that pepper his chapters contribute to the feeling of actually having a conversation with him. In fact, over the course of reading, one learns both about the topics and the author. On the other hand, the book skillfully captures the zeitgeist of aesthetic science today. It includes discussions on all of the current hot topics, it is on top of the latest research, and it reflects Chatterjee’s fruitful interactions with other neuroscientists, psychologists, philosophers, art historians and critics. If his agreements and disagreements with them are in the book’s background, in a sense, everyone has a voice in this book.

References