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Human Evolutionary Genetics (*2nd edition*). By Mark Jobling, Edward Hollox, Matthew Hurles, Toomas Kivisild, and Chris Tyler-Smith. 650 pp. New York: Garland Science. 2013. $130.00 (paper).

Human Evolutionary Genetics is *the* standout text for teaching biological anthropology, evolutionary biology, and genetics courses concerning human evolutionary history. The book's target audience is upper-level undergraduate and graduate students. Undergraduates will find its clear explanations, color figures, and opinion boxes easy to follow. Graduate students will find the comprehensive nature of the text useful as both a reference and a teaching guide. Furthermore, it is a wonderful desk reference for experts in many fields including human biology, human genetics, and paleoanthropology. It is structured in a linear framework that is suitable for teaching and learning all aspects of human evolutionary genetics. The first edition was superb, and the updated second edition is even better, complete with color figures, updated content, and the addition of two new chapters.

The first chapter lays a firm foundation on which all of the remaining chapters of the book are built. It sets up the goals of the authors by broadly introducing the reader to human evolutionary genetics, highlighting how an understanding of our evolutionary history shapes our understanding of biology, and commenting on the integration of various lines of scientific inquiry. The book contains 17 additional chapters that are broken down into five sections and finishes with an appendix devoted to summarizing what is known about mitochondrial DNA and the Y-chromosome. The first section of the book explains how we study genomic diversity. It covers basic genetic principles such as inheritance patterns, recombination, and genomic organization and finishes with a review of the methods used for measuring human genetic diversity. The information contained in these chapters is complete enough to provide a thorough background without being overly detailed for a book that intends to cover much more in future chapters.

The text then goes on to review the basic principles for interpreting patterns of human genetic diversity, discussing the origins of modern humans, summarizing human colonization of the globe, and explaining the usefulness of an evolutionary perspective for disease and forensic applications. Each of these four sections offers extensive and clear explanations of the topics covered, complete with numerous, well-labeled color figures for the visual learner. The chapters also provide a synthetic view of the material, referencing seminal and cutting-edge research on the various topics. This synthesis is particularly useful for the chapters summarizing the peopling of the world, as it lends itself to teaching a thorough overview of human demographic history through broad and easy-to-follow integration of the major lines of evidence supporting modern *Homo sapiens'* migration out of Africa and the subsequent peopling of the globe.

A major strength of the text is its integration of archaeological and linguistic evidence with the biological data to provide a more holistic anthropological appreciation of the many topics covered within its pages. This technique also stresses the importance of interrogating different records of the past as each speaks to distinct features of human evolutionary history. Such an emphasis provides the student with an understanding that no record is unbiased, and that multiple lines of evidence from various disciplines must be combined to create a thorough and composite view of the evolutionary past.

One particularly attractive strategy the authors have incorporated into the text is the opinion box. The information contained within these sections sheds light on interesting and sometimes contentious aspects of human evolutionary research such as the speed of crop domestication or the sharing of personal genetic data. These boxes offer insights from an expert in the field, while providing interesting talking points for classroom discussions or paper prompts. The opinion boxes also allow students to understand concepts—as opposed to emphasizing simple rote memorization of textbook facts—and demonstrate healthy disagreements in the field, which encourages independent thinking in a classroom setting. Furthermore, they illustrate how our knowledge of human evolution grows more detailed with advancing discovery.

The text is filled with practical information that is useful for students who are interested in wet lab methods, bioinformatics projects, or a combination of both. This practical information is especially useful for advanced undergraduates who are considering independent research or early-stage graduate students who are developing laboratory rotation projects or dissertation pilot projects. For example, the text contains technical information describing the chemistry underlying common laboratory techniques such as PCR, gel electrophoresis, and DNA sequencing, including information on next-generation sequencing. The authors summarize commonly used software programs available for studies of evolutionary genetics, and they provide links to the websites for downloading. They also present useful summary tables enumerating various test statistics complete with information on the software package that perform a particular test and the primary reference, and they provide detailed information regarding tests for natural selection. Complementing these easy-to-use reference tables are detailed descriptions that explain and interpret patterns of genetic variation using figures produced from commonly used software programs. In addition, the authors provide easy-to-understand summaries of publically available genomic datasets and links to these large-scale projects on human genetic variation.

Overall, *Human Evolutionary Genetics* is a well-organized, clearly written, and comprehensive treatment of the current state of the field of human evolutionary genetics. The authors integrate data from the most recent publications to explain and support our understanding of human evolutionary history. I highly recommend this text to anyone interested in the genetics of human evolution, students and professors alike. My thanks to the authors for updating an already outstanding book; you have outdone yourselves! Buy this book. You won't be disappointed and you will likely learn something along the way.

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Studying Human Behavior: How Scientists Investigate Aggression and Sexuality. By Helen E. Longino. 256 pp. Chicago: The University of Chicago Press. 2013. $75.00 (cloth), $25.00 (paper).

When I agreed to review this book, I think I must have forgotten the sage advice of "never judge a book by its cover." From first glance, it appeared to be a volume of interest that examined studies of human behavior and, in particular, the investigation of aggression and sexuality. And, initially, there were indications that the author would be blending some very diverse disciplinary perspectives to offer novel views and approaches. Longino sets out to use a social epistemological method to compare and contrast a selection of different approaches to studying human behavior. She examines quantitative behavioral genetics, social-environmental approaches, molecular behavioral genetics, neurobiological approaches, and selected "integrative" methods such as developmental approaches in a broad-based effort to be informed, and to inform her audience, using current research. Then I arrived at Chapter 1, page 14 and read "My focus will be on biological approaches focused on proximate rather than evolutionary accounts" and my heart plummeted: over two hundred pages to go and no evolutionary theory—how is this going to make sense? The author starts this paragraph by dismissing ultimate explanations by saying, in reference to sociobiological and evolutionary psychology perspectives, "In my view, the plausibility of those evolutionary accounts depends on the outcome of the research programs on more immediate causes of behavior, especially behavioral genetics, but also the neurophysiology of behavior" (p. 13). This and the following paragraphs clearly show that this volume is not written by someone who thoroughly understands evolutionary theory or has any concept of what will happen if you exclude an evolutionary approach when looking at how different disciplines study and integrate their findings on human aggression and sexuality.

In his essay "Nothing in Biology Makes Sense Except in the Light of Evolution" in *American Biology Teacher*, Theodosius Dobzhansky (1973) demonstrated how evolution is the cornerstone that supports and unifies the many fields of biology. In the essay he points out that, without evolutionary theory, biological information "becomes a pile of sundry facts some of them interesting or curious but making no meaningful picture as a whole" (Dobzhansky, 1973: 129). And, from the biological anthropology perspective that about sums up *Studying Human Behavior*. It is clearly intended for a different audience other than one that reads *American Journal of Human Biology* and, as I am a member of this audience, I am clearly not the reader the author intended and so I am not able to provide the type of review or perspective that would come from, and be of use to, a non-biologically trained audience. If, however, like me you feel yourself obliged to read to the end, I suspect you will also find yourself somewhat amazed at many of the discussions and conclusions presented in this volume. For example, in a chapter on integrated approaches the author, referring to those working in the various fields as "advocates," states at the beginning of the chapter that these advocates "all admit that biological and environmental factors interact to produce the behavioral outcomes they investigate, none, with the limited exception of classical behavioral geneticists, either pursues an interactionist program or considers how taking other factors into account might affect their approach, methods, and conclusions" (p. 81). This is just one of many examples throughout this book that, if you remove the overarching evolutionary perspective that functions to integrate biology, then there is no integration and no overarching perspective.

The author goes on to similarly show that if you remove evolution from the study of the ontogeny of behavior then there is little clarity or sense, and if you remove the interdisciplinary nature of the evolutionary perspective, there is little interdisciplinarity. In its place, the author proposes mechanisms that she appears to fail to grasp are themselves evolutionary. For example, she refers to primate studies and points out that, using secondary references, studies found that forest-dwelling and savannah baboons showed differences in aggressiveness, male dominance, and hierarchy. The author determinedly excludes evolution from ecology and, because different populations were in different ecological settings, she concludes that "the ecological explanation offers a robust alternative to the genetic one for differences of these populations" (p. 118). I could go on, but actually, to be honest, at this point I gave up, threw up my hands, and only skimmed the rest, but I did write some rude words in the margins. This volume is not for me, but I wish it well, wherever it belongs. It simply does not belong here among the evolutionary biologists, except to teach us that for us, without evolution, writing about human behavior in this way does not make sense.

LITERATURE CITED

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Syndemic Suffering: Social Distress, Depression, and Diabetes among Mexican Immigrant Women. By Emily Mendenhall. 145 pp. Walnut Creek, CA: Left Coast Press. 2012. $94.00 (cloth), $29.95 (paper or e-book).

Syndemic Suffering employs a mixed methods approach drawn from cultural anthropology, epidemiology, and