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Book review: Reproduction and adaptation: topics in human reproductive ecology

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REPRODUCTION AND ADAPTATION: TOPICS IN HUMAN REPRODUCTIVE ECOLOGY. Edited by C.G. Mascie-Taylor and Lyliane Rosetta. Cambridge Studies in Biological and Evolutionary Anthropology, Vol. 59. Cambridge: Cambridge University Press. 2011. 282 pp. \$99.00 (hardback). ISBN 978-0-521-50963-3.

This edited volume is the 59th addition to the Cambridge Studies in Biological and Evolutionary Anthropology series, and is the published result of the Second Parkes Foundation Workshop held in 2007. The individual merit of each the 13 chapters is the highlight of the book. Some of the chapters, as one might expect, are more meritorious than others. The volume as a whole, however, is so sparsely contextualized that it reads more like a journal of human reproductive ecology reviews than a book. For instance, the editors provide nothing more than a half-page preface—two thirds devoted to acknowledgments and a description of the Parkes Foundation's mission of fostering biosocial research, the other third to listing the volume's four themes. The book lacks synthesis and systematic organization. This could have been remedied with a meatier preface or, even better yet, having the chapters bundled into four sections, one for each theme, each section with a contextualizing introductory essay.

I learned a lot from reading the volume, but was disappointed in the end by the undelivered promise of a book about adaptation. The title implies an adaptationist perspective yet, with the exception of 2 or 3 papers, the collection is all but devoid of evolution (except perhaps, in the Dobzhanskyan sense that everything in biology is better understood in its light). Most of the chapters cover topics in the physiology of reproduction, adopting a proximate perspective (i.e., interested in problems of mechanism). This lens for examining the biological underpinnings of reproduction is important, and without it we would lack a complete understanding of the phenomenon, but it is no more adaptationist or evolutionary than is the coverage of, say, the digestive system in a human biology text, even if we accept that the digestive system is a beautifully designed (if not suboptimal) collection of adaptations. This may be less troublesome for other readers, but as a human behavioral ecologist with interests in reproduction, the distinction between evolutionary (functional/ultimate and phylogenetic/historical) and non-evolutionary

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(proximate/mechanistic and developmental/ontogenetic) explanations in biology is central to my understanding of these issues.

The range of topics covered in this volume was impressive. Among the notable chapters were the ones that provided a review of the literature on an interesting topic, even if it was a selective review, such as the chapter on the cancer of the mammary gland and the one on growth and sexual maturation in nonhuman primates. Some of the papers were provocative or quirky, such as the chapter that outlined a novel hypothesis concerning male reproduction and genetic pathology, and the chapter on the use of a sheep model for studying adolescent reproduction. Some of the papers provided important details of new analytical methods, such as the chapter on the analysis of menstrual-cycle field studies. I applaud the authors of that chapter for making their R syntax available to readers. I question the editorial decision (the editors are also co-authors of this chapter) to use 10% of the book's length for half single-spaced, half double-spaced, computer code—27 pages in a 282-page book. Or, perhaps, the honus lies with the publisher to develop a mechanism for the online publication of supplementary materials (like many primary journals have done). Finally, the least notable chapters in the volume were overly short, covered topics that have been adequately covered elsewhere, and were overly reliant on dated references.

Overall, the book lacks comprehensive enough coverage of reproductive ecology to serve as an introduction to the topic. Many of the individual chapters are interesting, though, so I imagine the book will end up on the shelves of hardcore reproductive ecology scholars. Even more, I could see using a something like this as the textbook for an advanced undergraduate or graduate seminar in human biology. For the vast majority of us, however, I think the book will be something that at some point we may, or may not, check out from the library for one or a couple of interesting articles on a topic we are researching.

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