

Book Review

Review of Bribiescas, Richard G. How Men Age: What Evolution Reveals About Male Health and Mortality. Princeton, N.J: Princeton University Press. 2016. pp 192. Price: \$24,95 (Hardcover); \$17,95 (Paperback).

Richard Zimmer Sonoma State University

Anthropology & Aging, Vol 40, No 2 (2019), pp. 90-92 ISSN 2374-2267 (online) DOI 10.5195/aa.2019.222

(cc) BY-NC-ND

This work is licensed under a Creative Commons Attribution-Noncommercial-No Derivative Works 3.0 United States License.

This journal is published by the <u>University Library System</u> of the <u>University of Pittsburgh</u> as part of its <u>D-Scribe Digital Publishing Program</u>, and is cosponsored by the <u>University of Pittsburgh Press</u>.

Book Review

Review of Bribiescas, Richard G. How Men Age: What Evolution Reveals About Male Health and Mortality. Princeton, N.J: Princeton University Press. 2016. pp 192. Price: \$24,95 (Hardcover); \$17,95 (Paperback).

Richard Zimmer Sonoma State University

Richard Bribiescas, Professor of Anthropology and Ecology and of Evolutionary Biology at Yale University, has written a witty, and provocative book about how men (and, in a similar vein, women) age. Bribiescas takes the courage of opening the age old box of Pandora in marrying anthropology with evolutionary biology. He does so, however, to map the human reproductive ecology of gendered ageing trajectories: he contends each gender has evolved differently as to their sexuality, particularly from the teen years onwards. Whereas men have evolved to be stronger and to take risks at a younger age, women have evolved to be ready for reproduction around this same moment in maturation. Their ageing trajectory, however inscripted by socio-cultural practices, is still more tightly bound to their biological fertility than men's. Although men, who survive the risky behavior they engage in in their earlier readiness for reproduction, will be able to keep on reproducing much longer than women, the concomitant physiological changes are likely to produce medical conditions that impact men's health, which can cause men to die earlier than women. While, today, medical and social interventions can help people from both sexes to live longer, Bribiescas argues we cannot escape our sexual evolutionary past. Pithily, he quotes Peter Ellison: "evolution does not select for health'" (106).

The author makes his evolutionary argument compelling by comparing human, primate and higher animal patterns of reproduction and their consequences for natural selection. In his words: "[The challenges] for women ... include childbirth and lactation. For men, it has been competition with other males and evolving ways to be attractive mates" (5). Bribiescas argues, today, each sex shows tradeoffs in terms of these designated reproductive roles. Men "need to make decisions how to allocate calories and other resources to promote reproductive success" (5). Following this line of thought, men have developed stronger upper body strength and have also developed faster energy burning rates (55-56).

Recently, shortly after the publication of this book, Manu Goyal and colleagues find that, as they age, men's brains deteriorate faster than women's. Their research shows that, whereas women's brains were 3.8 years younger than their chronological age, men's brains were 2.4 years *older*. Furthermore, age-related stressors seem to impact women's brains far more than men's (Goyal et al. 2019: 3251 e.s.). Further neurological research is needed to determine what aspects of this phenomenon can be brought back to brain metabolism. Following Bribiescas' argument on the evolutionary basis of sex-differential energy usage, a causal relation between this factor and the unequal pace of decline appears ever more likely.

In their teen years, thus, in part because of heightened testosterone production, males' risky behaviors can lead to premature death and accidents, which explains the earlier bump in male mortality. Older men who survive risky behaviors, despite losing bodily strength, have developed more skills that allow them to survive and succeed. Women use calories in their younger years for reproduction – not for challenging behavior – but are more likely to die in this period due to the vicissitudes of childbirth. Once they have passed their reproductive years, they are still likely to live longer than men.

Furthermore, women and men face *different* risks for later mortality because of the hormonal changes involved in their different ways of sexual reproduction. Bribiescas reviews established and more recent work in medical and evolutionary anthropology on how boys and men are more fragile than women. He equally situates hormonal differences in a comparative cultural perspective: women have "robust" immune systems, more so than men (120). Moreover, men who increase their testosterone levels because of real and perceived erectile dysfunction may possibly put themselves at risk for prostate cancer (118). On the flip side, men who not just father children, but who are involved in their care, may experience lower levels of testosterone, higher levels of estradiol – the 'female' hormone – and more robust immune systems. Too much estradiol, however, can lead towards those health and mortality conditions to which women are susceptible.

As an anthropologist, Bribiescas also takes into account the impact of social factors on the way men and women play out their sexual and reproductive roles, and the effects thereof on health and mortality. Bribiescas uses many examples from his own and other's fieldwork to illustrate this. He, for example, reviews the "Grandmother hypothesis" proposed by Kristen Hawkes. To put it briefly, Hawkes states that women can be supported in their reproductive years in terms of child bearing and child care, by having their mothers participate in taking care of their children. This social situation, would allow a child bearing woman to have more children, who are equally more likely to survive (82 e.s.).

On the flip side, the author reminds, men can continue to father children way past the age that women can reproduce, although their sperm may not be as strong and they may not find younger women who agree to have their children. As a rule, men tend to live longer in pair bonded relationships, in part because they are likely to indulge in less risky behavior (see Chapter 5). In addition, they, too, may be involved in raising their grandchildren. As a bonus, those older men who take care of children and those who have daughters taking care of them live longer, as do post-reproductive women (102).

Bribiescas' publication raises many questions for future study, questions way beyond the above-mentioned differences in brain aging. He notes, for example, the lack of research on gay populations, both male and female, and raises the intriguing question as to whether pair bonding among gay men would affect their mortality in the same way as it does with straight men (127 e.s.). Or, in a similar vein: does engaging in warfare at an earlier age and surviving into old age "...have potential fitness benefits" (127)? Bribiescas' most important argument is that men (and women) cannot escape the aging effects of their evolutionary and gendered bodily material, effects which are determined by the physiological differences in reproduction and their concomitant medical conditions.

This book is easily accessible for the educated and knowledgeable reader. It can be used in gerontology, physical and socio-cultural anthropology and biology classes for both undergraduate

and graduate students. It also provides food for thought for classes in gender studies as well as in physicians' and nurses' training.

References

Goyal, Manu et al. "Persistent metabolic youth in the aging female brain." *Proceedings of the National Academy of Sciences* 116 (8): 3251-3255. https://doi.org/10.1073/pnas.1815917116.