Series Preface

Just a few years after the 150 anniversary of the publication of "Origins of the Species" and official Year of Darwin, the social and biological sciences are still working to integrate their research into a more complete understanding of human behavior and biology. This series hopes to close this gap as demonstrated by the potential topics and their audiences: anthropologists, biologists, demographers, economists, psychologists, geneticists, public health researchers, and others. This series will closely model the aims and scope of the journal *Human Nature*. It will focus on human evolutionary ecology, biology, psychology and behavior. The Briefs are based on evolutionary and life history theory. The social, behavioral, and biological sciences have traditionally pursued separate paths both in research and in education. Yet it is increasingly apparent that the most pervasive and crucial issues of our time are fundamentally behavioral in their nature and lie squarely at the interface of these artificially separated disciplines.

To address the problems of modern society, we must first understand the very substance of our species: how we evolved to be the way we are, why we behave the way we do, and what are the social and ecological contexts that restrain, channel, modify, and diversify our behavior. To this end, this SpringerBrief series will look though a complex, multi-faceted lens: one that peers through time, across geographic space and into the diversity of human social and cultural experience. It will emphasize the integration of biological, environmental, social, psychological and behavioral factors that shape the expression of human behavior and the relevance of a biosocial perspective to major scientific, social, and policy issues in the world today.

The first book in the series, *Human Physical Fitness and Activity: An Evolutionary and Life History Perspective* by Ann E Caldwell provides us with a model for applying evolutionary and life history theory to understand the relationship of exercise with health and disease in modern, sedentary populations. Natural selection has shaped human physiology and psychology to flexibly respond to energetic demands and resource scarcity in order to optimize survival and reproductive fitness. The one thing natural selection has not been able to do is to

shape human biology to operate in an environment with an unlimited supply of surplus energy with the only physiological tools at hand being a biology that readily stores surplus energy in fat. Evolutionary theory tells us we should be thinking in terms of how costs and benefits shaped by a world long gone operate in today's world. Life History Theory warns us to be cognizant of the fact that the costs and benefits of energy expenditure and storage vary by sex, age and circumstance so that approaches to increase physical activity can and must be tailored by altering the built environment and the reward structure from a life history perspective.

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