

Preface

This book started as a conversation between Lynnette Sievert, Daniel Brown, and Leslie Sue Lieberman. Each is a human biologist interested in the measurement of complicated phenomena. Sievert measures menopausal hot flashes by both self-report and sternal skin conductance (a measure of sweating across the upper chest.) She is interested in explaining the lack of concordance between subjective self-report and what appear to be distinct, measurable, physiological changes. Working in hot and humid environments, Sievert has documented different levels of concordance between subjective and objective measures of hot flashes in Hilo, Hawaii (with Brown), Sylhet, Bangladesh (with Gillian Bentley), and Campeche, Mexico (with Brown, Laura Huicochea, and Diana Cahuich). Hot flashes can be made visible through sternal skin conductance, but what does it mean if women don't feel or label the physiological changes to be hot flashes?

Brown measures stress, and finds examples of non-concordance between self-reported stress and physiological indicators of stress, such as changes in ambulatory blood pressure or levels of cortisol or catecholamines. He has identified ethnic differences in self-report, and, perhaps, in the willingness to identify some situations as stressful.

Lieberman is interested in the study of appetite—in the biological and psychological mechanisms that influence hunger and satiety. She is interested in the lack of concordance between physiological needs and psychological compulsions associated with food choices and the amount of food consumed. Underlying her work is an understanding that human evolution can help explain both the physiology and psychology of eating.

The three of us submitted a proposal to “make visible the invisible” for the meetings of the American Association for the Advancement of Science (AAAS) in 2012, along with Marc Heft who, as a professor of oral and maxillofacial surgery, ponders how best to measure the experience of pain. The idea for this book was fully formed after further discussion during the 2012 meetings of the Human Biology Association and the American Association of Physical Anthropologists.

We realized that this book needed to be multidisciplinary, so we invited contributors from multiple departments, including anthropology, kinesiology and sport

science, psychology, nutrition, epidemiology, and philosophy. As a result, this book is meant for an audience of researchers and students interested in a broad range of human experience. All of the authors work at the intersection between what can be physiologically measured and what can be learned from subjective self-report.

During the writing of this book, Sievert and Brown, along with Laura Huicochea, received support from the National Science Foundation to study hot flashes in Campeche, Mexico (#BCS-1156368). Sievert has also been supported by the Institute for Advanced Study (IAS), Durham University, UK, which provided necessary space for thinking and writing. Many of the ideas expressed in Chap. 15 began with work completed while in residence at the IAS, in the company of Gillian Bentley.

Amherst, USA
Hilo, USA

Lynnette Leidy Sievert
Daniel E. Brown

Biological Measures of Human Experience across the
Lifespan

Making Visible the Invisible

Sievert, L.L.; Brown, D.E. (Eds.)

2016, XI, 336 p. 39 illus., 17 illus. in color., Hardcover

ISBN: 978-3-319-44101-6