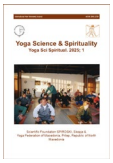
Scientific Foundation SPIROSKI, Skopje, Republic of North Macedonia
Yoga Science & Spirituality. 2025 Dec 15; 1:10-11.
https://doi.org/10.3889/yss.2025.6611
eISSN: 2955-2729
Category: *Yoga and Education*
Section: *Book Review*



Science Studies Yoga: A Review of Physiological Data by James Funderburk, PhD

Tanja Dimova-Abrasheva[1,2]*

[1]DEKADA KOMUNIKACII DOO Skopje, Skopje, Republic of North Macedonia; [2] Yoga Federation of Macedonia Prilep, Krume Volnaroski 26, Prilep, Republic of North Macedonia

Citation: Dimova-Abrasheva T. Science Studies Yoga: A Review of Physiological Data by James Funderburk, PhD. Yoga Sci Spiritual. 2025 Dec 15; 1:10-11. https://doi.org/10.3889/yss.2025.6611
Keywords: Yoga; Physiology; Mind–body medicine; Psychophysiology; Scientific research
***Correspondence:** Tanja Dimova-Abrasheva. DEKADA KOMUNIKACII DOO Skopje, Skopje, Republic of North Macedonia.
E-mail: tanjacloe@gmail.com
Received: 15-Nov-2025
Revised: 20-Nov-2025
Accepted: 11-Dec-2025
Copyright: © 2025 Tanja Dimova-Abrasheva
License: This is an open-access article distributed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0)
Funding: This research did not receive any financial support
Competing Interests: The authors have declared that no competing interests exist

Abstract

Science Studies Yoga: A Review of Physiological Data by James Funderburk represents a significant scholarly contribution to the scientific understanding of yoga. The book critically examines yoga not as a spiritual or philosophical system, but as a subject of empirical investigation grounded in modern physiology. Drawing on experimental studies, clinical observations, and laboratory measurements, Funderburk reviews physiological data related to yogic breathing, meditation, relaxation, and physical postures. The work systematically analyzes the effects of yoga on key physiological systems, including respiration, cardiovascular function, metabolism, and neural activity, with particular attention to indicators such as heart rate, blood pressure, oxygen consumption, brain wave patterns, and autonomic nervous system responses. Emphasizing methodological rigor, the author carefully discusses the limitations of existing studies, including small sample sizes and lack of standardization, thereby presenting yoga research as an evolving scientific field. By integrating perspectives from physiology, psychology, and neuroscience, the book bridges Eastern contemplative practices and Western biomedical science and anticipates later developments in mind–body medicine. Overall, the work establishes yoga as a legitimate area of physiological research and provides a foundational reference for scholars and healthcare professionals interested in evidence-based approaches to mind–body practices.

Publication date: 1977

Topics: Hatha yoga -- Physiological aspects

Publisher: [Glenview, Ill.] : Himalayan International Institute of Yoga Science & Philosophy of USA

Science Studies Yoga: A Review of Physiological Data by James Funderburk represents an important scholarly effort to examine yoga through the lens of modern scientific inquiry. Rather than approaching yoga as a purely spiritual or philosophical tradition, the author focuses on empirical research and physiological evidence to evaluate the effects of yogic practices on the human body. With an introduction by Barbara B. Brown, a respected researcher in psychophysiology, the book situates itself firmly within an academic and interdisciplinary framework that bridges Eastern practices and Western science.

The primary objective of the book is to review and synthesize available physiological data related to yoga, particularly studies concerning breathing techniques, meditation, relaxation, and physical postures. Funderburk adopts a critical and analytical approach, examining research findings from experimental studies, clinical observations, and laboratory measurements. This scientific orientation distinguishes the work from more popular or instructional yoga texts and positions it as a resource for researchers, healthcare professionals, and students interested in the measurable effects of mind–body practices.

Structurally, the book is organized in a clear and systematic manner. It begins by outlining the historical and conceptual background necessary to understand yoga within a scientific context. Funderburk acknowledges the ancient origins of yoga while emphasizing the need for objective analysis and methodological rigor. This introductory discussion prepares the reader for the central sections of the book, which focus on physiological systems such as respiration, cardiovascular function, metabolism, and neural activity. Each section reviews relevant studies and discusses how yogic practices may influence these systems.

The content of the book includes the following chapters:

- muscular-articular responses to Hatha yoga,
- circulatory responses to Hatha yoga,
- respiratory responses to Hatha yoga,
- endocrine and nervous system responses to Hatha yoga
- general physiological responses to meditation.

One of the book's major strengths lies in its emphasis on empirical evidence. Funderburk carefully examines physiological indicators such as heart rate, blood pressure, oxygen consumption, brain wave activity, and autonomic nervous system responses. By referencing experimental data, the author demonstrates that yoga can produce measurable changes in bodily functioning, particularly in relation to stress reduction and relaxation responses. The discussion of altered states of consciousness and biofeedback, reinforced by Barbara B. Brown's introduction, further strengthens the scientific credibility of the work.

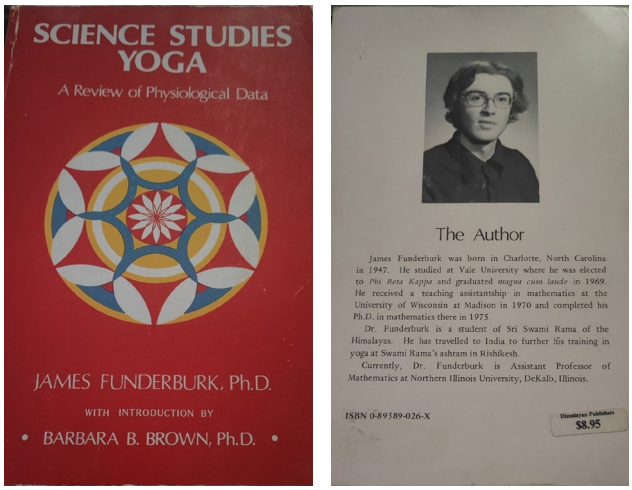


Figure 1: Cover page and author of the book Science Studies Yoga: A Review of Physiological Data by James Funderburk, Ph.D.

The author maintains a balanced and cautious tone throughout the book. Rather than making exaggerated or definitive claims about the benefits of yoga, Funderburk consistently highlights the limitations of existing studies. He addresses issues such as small sample sizes, lack of standardized methodologies, and difficulties in isolating specific variables within complex yogic practices. This critical perspective enhances the academic value of the book, as it encourages readers to view yoga research as an evolving field rather than a settled body of knowledge.

Another important contribution of the book is its interdisciplinary relevance. Science Studies Yoga intersects with fields such as physiology, psychology, neuroscience, and preventive medicine. By framing yoga as a subject worthy of scientific investigation, Funderburk challenges traditional divisions between Eastern contemplative practices and Western biomedical models. This approach anticipates later developments in mind–body medicine and integrative health, making the book historically significant as well as academically relevant.

Despite its strengths, the book also has certain limitations. Some of the studies discussed reflect the scientific standards and technological constraints of the period in which the book was written. As a result, readers familiar with contemporary neuroscience or medical research may find the data somewhat dated. Additionally, the text is highly analytical and may be challenging for readers without a background in physiology or scientific methodology. However, these limitations do not undermine the book's core contribution; rather, they highlight the need for continued research and updated studies in the field.

In conclusion, Science Studies Yoga: A Review of Physiological Data is a rigorous and insightful examination of yoga from a scientific perspective. James Funderburk succeeds in presenting yoga as a legitimate subject of physiological research while maintaining a critical and evidence-based approach. The book is particularly valuable for academics, researchers, and practitioners interested in the scientific foundations of yoga and mind–body practices. By emphasizing empirical data and methodological caution, the work contributes meaningfully to the academic discourse on yoga and its role in health and human performance.