

Preface to the First Edition

This book concerns your nature as a human being. It is about the connection of your mind to your body.

You may imagine that your mind – your stream of conscious thoughts, ideas, and feelings – influences your actions. You may believe that what you think affects what you do. You could be right. However, the scientific ideas that prevailed from the time of Isaac Newton to the beginning of the twentieth century proclaimed your physical actions to be completely determined by processes that are describable in physical terms alone. Any notion that your conscious choices make a difference in how you behave was branded an illusion: you were asserted to be causally equivalent to a mindless automaton.

We now know that that earlier form of science is fundamentally incorrect. During the first part of the twentieth century, that classical-physics-based conception of nature was replaced by a new theory that reproduces all of the successful predictions of its predecessor, while providing also valid predictions about a host of phenomena that are strictly incompatible with the precepts of eighteenth and nineteenth century physics. No prediction of the new theory has been shown to be false.

The new theory departs from the old one in many important ways, but none is more significant in the realm of human affairs than the role it assigns to your conscious choices. These choices are not fixed by the laws of the new physics, yet these choices are asserted by those laws to have important causal effects in the physical world. Thus contemporary physical theory annuls the claim of mechanical determinism. In a profound reversal of the classical physical principles, its laws make your conscious choices causally effective in the physical world, while failing to determine, even statistically, what those choices will be.

More than three quarters of a century have passed since the overturning of the classical laws, yet the notion of mechanical determinism still dominates the general intellectual milieu. The inertia of that superceded physical theory continues to affect your life in important

VIII Preface to the First Edition

ways. It still drives the decisions of governments, schools, courts, and medical institutions, and even your own choices, to the extent that you are influenced by what you are told by pundits who expound as scientific truth a mechanical idea of the universe that contravenes the precepts of contemporary physics.

The aim of this book is to explain to educated lay readers these twentieth century developments in science, and to touch upon the social consequences of the misrepresentations of contemporary scientific knowledge that continue to hold sway, particularly in the minds of our most highly educated and influential thinkers.

Acknowledgements

This work has benefited greatly from comments by K. Augustyn, R. Benin, J. Finkelstein, D. Lichtenberg, T. Nielsen, M. Velmans, T. Wallace, my wife Olivia, my son Henry, and especially from massive feedbacks from Edward Kelly and Adam Crabtree. Appendices D–G are contributions by me to a Compendium of Quantum Physics to be published by Springer, and the Atmanspacher interview in Chap. 15 was published in the September 2006 issue of the *Journal of Consciousness Studies*. I thank Jeffrey Schwartz for numerous suggestions pertaining to the form and content of this work.

Berkeley,
February 2007

Henry P. Stapp

Preface to the Second Edition

Two new chapters have been added. The first of these pertains to the placebo effect, and in particular to the explanation of the results of recent placebo experiments that show that slight changes in the words that are spoken to patients, words that change the patients' mental expectation pertaining to pain, have large effects not only on their reports of pain but also on the fMRI measurements of the activities in brain centers associated with pain. It is argued, on the basis of defining characteristics of the mental and physical aspects of our being, that these effects do not follow logically from the precepts of classical physics: a deeper theory is needed. It is argued that the needed theory is quantum theory, and it is explained how that theory can account for the empirical results in a rationally coherent way.

The second new chapter considers the problem of 'free will' and, by using essentially the same ideas that were used in the placebo chapter, shows how and why, within the quantum mechanical conceptualization of the role in nature of our human minds, we human beings do possess free will.

Berkeley,
November 2010

Henry P. Stapp



<http://www.springer.com/978-3-642-18075-0>

Mindful Universe

Quantum Mechanics and the Participating Observer

Stapp, H.P.

2011, XIII, 212 p., Hardcover

ISBN: 978-3-642-18075-0