

# Mental Force & Quantum Brains

## Exploring the Mind-Body problem with Schwartz/Begley's *The Mind and the Brain*

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The neuroplasticity revolution is spreading. The number of popular books on this topic has multiplied over the last decade, as has new research. One book which appeared back in 2002 offers a fine overview of the developments that led up to this “revolution” and develops a comprehensive thesis on the Mind-body problem: *The Mind and the Brain* by Jeffrey M. Schwartz and Sharon Begley is an astonishingly ambitious, even courageous book that merits reading and rereading. This article will attempt to give an overview of this thesis given the importance of the Mind-body problem for the field of Bioethics.

Schwartz (born 1948) is a psychiatrist, neuroscientist and philosopher. In a television interview he admitted that he entered the field of psychiatry with a sense of vocation, seized with enthusiasm as a teenager<sup>1</sup>. After graduating, his research led him towards the Mind-body problem through his work with OCD (obsessive-compulsive disorder) patients in the late 1990s. The results documented by his team at UCLA (California) showed astounding changes in the brains of OCD patients after therapy using “mindfulness”<sup>2</sup> (or “focused attention”) to reconfigure the pathological circuits from which they were suffering<sup>3</sup>. This work has gained him international renown. The structural changes in adult brains of OCD sufferers is just one of the examples of neuroplasticity documented in the book, although it is the example that most provoked Schwartz to go further into the philosophical, biological and physical implications of these findings.

In 1998 Schwartz began a fruitful collaboration with the renowned American physicist Dr. Henry Stapp (born 1928). This collaboration led to an explanation of the causal influence of “mental force” (or *will*) upon the brain. Their thesis was made available to the general public for the first time through *The Mind and the Brain*, and it didn't stop there: In September 2009 both were present at the historical panel discussion at the UN<sup>4</sup> moderated by the French Philosopher Dr. Elie During from the University of Paris in which two other experts of international renown also took part<sup>5</sup>.

On this occasion at the UN Schwartz spoke passionately about the “obstruction from materialism” in the Scientific establishment, but apart from his two interventions which some termed as overly “confrontational”, the occasion also provided Stapp with an opportunity to present, in his characteristically paused way, the non-determinist thesis of a brilliant physicist.

Stapp stated that Quantum physics not only “brought the observer into the realm of science” in the passive sense but rather as an active agent. This is a brilliant point, although this subtle difference is not yet widely acknowledged among physicists. Stapp went on to point out his conviction that there is nothing in Quantum Mechanics that determines what the intention (of the observer) is going to be. The “smear of possibilities” in particle physics (according to the uncertainty principle of Heisenberg) are all on equal footing until they are “collapsed” or “reduced” by (Stapp maintains) the inter-



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vention of “something outside”. By this he refers to something outside of matter. Consequently, he maintains that the principle of human attention is “outside” of the human brain and immaterial, although capable of influencing matter.

A second point that Stapp made at the UN on this occasion was the way that the aforesaid reduction is always to something understandable or rational. The observer asks a meaningful question to reality and then reality (as a consequence?) provides a meaningful answer. It’s this element that clearly most amazes Stapp, as he revealed in a recent interview.

Returning to *The Mind and the Brain*, the chapter entitled “The Quantum Brain” reveals that Schwartz and Stapp had already thought through the physical/biological difficulties of showing a link between “mental force” and the science of neurobiology. The book is excellent in that it includes an introduction to the history of Quantum Mechanics which makes the subsequent chapters easier to grasp for those without any specialist knowledge. The solution they offer is to claim that the Quantum Zeno Effect (developed at the University of Texas by George Sudarshan and others) is at work when calcium ions are prevented from passing into neuron terminals (and thus the neurons are prevented from firing). Incidentally, the collaboration Schwartz-Stapp provides an interesting counterpart to the Hameroff-Penrose partnership whose work on this same question is producing international interest.

Mention should be made of the more recent work of Sharon Begley (co-author of *The Mind and the Brain*) who has since published

three more books on the subject of neuroplasticity, above all with therapeutic ends in mind. As science columnist of the *Wall Street Journal* she achieved great success with *Train your Mind, Change your Brain* (2007) and *The Plastic Mind*, a *New York Times* best seller that same year. *The Emotional Life of Your Brain* came out in 2012 in collaboration with Richard Davidson.

From the viewpoint of rehabilitation from OCD and other psychological disorders, the practice of “Mindfulness” taught by Schwartz has had remarkable results, changing the lives of many (his books *Brain Lock* and *You are not your Brain* are a point of reference for therapists and patients the world over). However Schwartz, in collaboration with Stapp, clearly maintains an interest in the philosophical issues at stake and in Quantum theory. Their work over a decade ago was pioneering in showing that Mind-body problems may have more to do with our ignorance of the Universe than with unresolvable conundrums.

#### NOTE

<sup>1</sup> 16th December 2007, IMDb, Eye on Entertainment (Television Academy of Arts & Sciences Hall of Fame Awards).

<sup>2</sup> Schartz took the term from the German Buddhist monk Nyanaponika Thera who also described Mindfulness as “Bare attention”; cf. J. SCHWARTZ and S. BEGLEY, *The Mind and the Brain*, 76 – 77.

<sup>3</sup> *Ibid.*, 63 – 73.

<sup>4</sup> *Mind-Body Connections: How does consciousness shape the Brain*, (9<sup>th</sup> September, 2008).

<sup>5</sup> Dr. Mario Beauregard & Dr. Esther M. Sternberg. For the full conference online see <http://www.nour-foundation.com>.