

BOOK REVIEWS

THE END OF MATERIALISM: HOW EVIDENCE OF THE PARANORMAL IS BRINGING SCIENCE AND SPIRIT TOGETHER by Charles T. Tart.
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Since the 17th-century scientific revolution, scholars have struggled with the issue of how to reconcile the physicalism and determinism of modern science with human freedom and dignity. René Descartes dealt with the problem by bifurcating the world between extended, dead matter and unextended, living consciousness. According to his version of substance dualism, human beings are “thinking things,” with freedom, dignity, and immortality.

After Darwin’s theory of evolution placed the development of mind into the context of evolutionary biology, some scholars, such as Henry Sidgwick, Frederick Myers, Edmund Gurney, and William James, founded psychical research, the ancestor of contemporary parapsychology. Although not all of these thinkers were dualists, the brunt of psychical research focused on the possibility of the proving via experience the existence of a nonphysical component of the human being, a component that could survive death. Even J. B. Rhine (1947), who revolutionized parapsychology with an experimental approach, tended toward a substance dualistic interpretation of psi evidence. Charles Tart’s book *The End of Materialism* lies squarely within this dualistic tradition.

Like the founders of psychical research, Tart is disturbed by what he considers to be the materialism (or physicalism) and determinism of contemporary science. He makes a sharp contrast between the 19th century Canadian psychiatrist Richard Maurice Bucke’s experience of “cosmic consciousness,” of the universe as alive, and the worldview of modern science, which accepts a universe of “dead matter.” The latter view is exemplified by the near-nihilistic pessimism of Bertrand Russell’s “firm foundation of unyielding despair.” Tart believes that a recovery of spirituality (as opposed to “organized religion”) can halt the slide into the anomie of materialism.

Ironically, it is through science that Tart believes such a recovery can take place. He defends the position that the findings of parapsychology are consistent with the existence of a nonmaterial aspect to human existence, opening the door to a new spirituality informed by the best findings of science. As a prelude to his exploration of parapsychology, Tart discusses an exercise he gives to his students called “The Western Creed.” This creed, in the same literary form as religious creeds, has a person

affirm materialism, atheism, the lack of any objective life meaning, the subjectivity of moral values (leading to individual ethical hedonism), no divine retribution for wrongs (“sins”), and no afterlife. Tart is interested in his students’ emotional response to the Western Creed—what “gut-level” reaction does a person have to the affirmation of what is, in effect, nihilism?

In ethics, a similar approach appeals to the “yuck factor” of certain actions, such as Leon Kass’s (2002) example of the negative emotional reaction U.S. citizens had to the news that dead bodies would be used in auto crash tests. Kass suggests that the “yuck factor” may represent deep moral wisdom. Could the “yuck factor” regarding materialism suggest a deep metaphysical wisdom that materialism may, in fact, be false? While Tart does not go that far, his thought experiment suggests that, to him and many others, materialism seems too “awful” to be true; if it were true, it would be psychologically “unlivable.”

To be fair to materialists, there are philosophical materialists who deny that materialism has the implications Tart claims. Canadian philosopher Kai Nielson (1990) has defended an objective “ethics without God.” Humanistic thinkers believe that a person can live a truly meaningful life bettering humanity without belief in anything other than the material universe. But Tart’s position holds such positions to be inconsistent. If materialism is true, then everything is governed by deterministic scientific law plus chance interactions of dead matter—which is Jacques Monod’s (1971) position in his book *Chance and Necessity*. The philosopher George Mavrodes (1998), while not going as far as Tart, argues that the seriousness of moral obligation is heightened by theism.

Tart moves on to discuss ways of knowing and pathologies of knowing and learning. He does not strictly limit all knowing to science (which would be an unscientific claim), and he recognizes that it is pseudoskepticism, rather than true skepticism, that denies even the possibility of psi. These claims are unproblematic. What is problematic is his conception of the “scientific method,” which he privileges over other ways of knowing—thus his call for an “evidence-based” (i.e., scientific) spirituality. Tart’s version of “the scientific method” is basically Baconian, with observation leading to theory formation, followed by prediction and testing (experimentation), followed by refining our view of reality.

Philosophers of science have mounted so many criticisms against this view of the “scientific method” that I know of no philosopher of science who would take it seriously. All observation is theory-dependent (Hansen, 1958), and there is no such thing as a pure “fact” uninfluenced by theory. Even the statement, “Rover is a dog” requires some low-level theory about what a dog is. In addition, theory-formation is often done in the light of a larger theoretical framework, a “paradigm” that guides scientists in how they should interpret the data (Kuhn, 1996). Tart may have been misled by the nature of parapsychology, because it lacks an overarching paradigm

and would fall into what Kuhn calls "preparadigmatic science." Other philosophers of science offer different models of theory formation and testing, including Popper's (1959) falsificationism; Tart accepts the ability to be falsified as a necessary condition for a successful scientific theory, Lakatos's (1978) "research programmes," and Laudan's (1977) "research traditions." The latter two models (as well as Kuhn's and Popper's later work) all propose sophisticated models of scientific theory formation and change that take into account the scientific community's role in evaluating theories (and to be fair to Tart, the importance he places on "communication" does bring in the larger scientific community). But science itself has its traditions, and while Tart is certainly right in criticizing "scientism," a philosophical interpretation of scientific data that permits only materialistic explanations of reality, science cannot avoid being influenced by larger worldviews and philosophical movements.

It is also not clear that there is one "scientific method." A good case can be made that there are a plurality of methods, depending on the particular field of science. Sometimes methods may clash even within a particular science (theoretical versus experimental physicists, for example). It may also be the case that the methods of science change throughout history (Chalmers, 1999). This does not imply that science is wholly subjective and arbitrary, as Paul Feyerabend (1975) believed, but that greater knowledge of how a field of science works may lead to the development of better methodologies.

It is also not clear that science offers a superior route toward spirituality than religious tradition. Spirituality, *contra* Tart, is not primarily an individualistic matter. Most often, spiritual experiences occur within the context of a particular community. It is only American pluralism and the divorce of such experiences as NDEs from particular faith communities that would lead one to accept an individualistic view of spirituality. But to define spiritual experiences as primarily individual experiences is not only ahistorical; it privileges the extreme individualism of the United States (an extreme individualism which itself, ironically, is a tradition) over other cultures' interpretations of these experiences.

Tart's alternative to materialism is a version of Cartesian substance dualism, which he defends using evidence from psi. His book contains an excellent summary of the evidence supporting "the big four" (telepathy, clairvoyance, psychokinesis, and precognition), often referring to Tart's own work in these areas. He also summarizes the results of recent remote viewing and psychic healing experiments. Although he discusses his controversial claim that psi ability can be improved through feedback, it is an important issue that is proper to mention in a discussion of psi abilities. Tart's summary is accessible to the general reader and offers those who are not trained in parapsychology a clear, up-to-date account of current research and the strength of the evidence for psi. Tart goes on to summarize the evidence concerning other aspects of psi such as out-of-body experiences

and mediumistic experiences. Here Tart discusses the possibility of survival of death.

The key claims Tart makes in his book have to do with his extrapolations from psi evidence to conclusions about the nature of the human mind. But why should he assume that the options “materialism versus dualism” are the only realistic options? And is his interpretation of “materialism” the only possible interpretation? The mathematician and philosopher Alfred North Whitehead, for example, believed that all reality is made of “actual entities” or “actual occasions” (Whitehead, 1979 [1929]). Every actual occasion has both a mental and physical pole, but these are not separate substances. Such “panpsychism” (a version of which Leibniz also accepted in the late 17th century) is nondualistic but allows for meaning in life, the existence of God, and (in the case of Leibniz) personal immortality.

Some Christian philosophers, such as Nancey Murphy (2006), are materialists when it comes to the mind-body problem. She believes that the human mind can wholly be explained in terms of the human brain. Yet she accepts the existence of God (and is a metaphysical dualist in that sense), but she also believes in the resurrection of the body (God “plugs” the memory patterns of a person on earth who has died into a “new body”). Yet Tart ignores the possibility of bodily resurrection. Why should he assume that the immortality of the soul is the only possible way to experience personal immortality?

Tart admits the possibility of quantum mechanical interpretations of psi experience similar to the approach of Dean Radin (2006). Tart is correct, in my judgment, in noting the dangers of extrapolating too easily from quantum theory to other fields. Although he does not take Stephen Braude’s (1996) approach that holds quantum mechanical approaches to be overly reductionistic, Tart’s caution is commendable. However, the very possibility of a quantum mechanical approach eliminates a sharp disjunction between the options of materialism and dualism.

Tart argues that telepathy and clairvoyance support the existence of a nonphysical realm because they work in spite of shielding devices that block all electromagnetic signals, they maintain their strength in spite of distance, and they may also be independent of time. Precognition shows, Tart believes, the independence of psi phenomena from time, and psychokinesis shows the ability of the mind to move objects in the physical world.

Although Tart admits to a broad conception of “nonphysical” or “nonmaterial,” he does not define what he means by “physical” or “matter.” He seems to include energy in the same category as matter (given that it can be converted to energy, and vice versa, this is a reasonable position). But could psi be mediated by some kind of energy not yet detected that could, in a broad sense, be called “physical”? Tart would refer to this view as “promissory materialism,” but even if some “material” explanation for psi

is discovered, it still might leave room for the spiritual values Tart desires to defend. A scientist can be as overeager to dismiss a quasi-materialistic explanation for psi as to dismiss a nonphysical explanation. The most reasonable position, in my judgment, is to say that we do not know whether the mechanism for psi is physical in some broad sense or completely nonphysical.

As a philosopher, I am impressed with the scope of Tart's book. Not only does he summarize nicely the evidence for psi phenomena, he also delves into issues in metaphysics, epistemology, the philosophy of mind, the philosophy of science, the philosophy of religion, and religious studies. It is no surprise, then, that the noted religious scholar Huston Smith (with Kendra Smith) wrote the foreword. Due to its flexibility, *The End of Materialism* could be used in a variety of college and university courses, such as an introductory parapsychology course, a course on parapsychology and philosophy of mind, a course on religious experience, and even a course in the philosophy of science. Despite its flaws (and no book is without some flaws) this book is a worthy summary of the thought of one of the most significant parapsychologists of the last 50 years. It is worth owning, at the very least, as the reflections of one of the leading parapsychologists concerning his many years of research in the field. It belongs in the library of every person interested in parapsychology.

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