

# PHDC7530 : Brain, Complexity, and Transpersonal Experience 大脑、复杂度与超个人体验

At the beginning of the modern age, Rene Descartes described "res extensa" (extended thing) as a main characteristic of the external world structured from material bodies. On the other hand, he postulated that the human mind is a specific kind of "observing" existence that he called "res cogitans" (thinking thing), the Soul. More than 300 years later, Francis Crick described basic rules for the future science of consciousness and argued that the traditional "Cartesian" concept of the soul as a nonmaterial being must be replaced by a scientific understanding of how the brain produces mind. On the other hand, scientific research provides evidence that the opposite approach is also true, and the mind may influence its brain and produce measurable changes in the brain processes and brain structural changes. In the brain, these processes are related to specific forms of attention and conscious awareness of brain information represented by physiological states. Taken together, these novel scientific findings provide interesting findings on how we can understand the "Soul" and transpersonal aspects of human experience within a framework of psychology, neuroscience, and physics. These novel scientific findings mainly include the theory of self-organizing systems, or chaos and complexity theory that enable one to understand some specific qualities of mental process and living organisms per se.

**Credits** 3