**Understand the "three-pound universe" of the brain and better understand yourself, others and the world**

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▲"Brain Supplement: Study the Brain to Understand Yourself": Written by Bao Aimin; Published by Shandong Science and Technology Press.

**"Brain Supplement: Studying the Brain to Understand Yourself"——**

**Understanding the brain, a "three-pound universe"**

■Bao Aimin

How does the brain work? How does consciousness arise? Do we only use 10% of our brain? These difficult questions obviously need to be solved through research on the human brain. What is the reason why it is difficult to completely solve and treat the pathogenesis of brain diseases that seriously endanger human health, such as depression, schizophrenia, Alzheimer's disease, Parkinson's disease, etc.?

The brain is an extremely mysterious and complex organ. From anxiety, memory loss and even slow reaction time to the mental illness and neurological diseases that have attracted widespread attention in recent years, brain science research covers all these important topics. These brain diseases may affect anyone and are more likely to occur at any time - at birth, in adolescence, in adulthood or in old age.

The brain of an adult weighs only about 1,300 grams, but its structure is extremely complex, consisting of 80 to 100 billion neurons. The total length of the connections between these neurons can reach 100,000 kilometers, and together they form the most complex "machine" in the world. How this "central processor" at the top of the body works not only determines each person's unique talents, potential, intelligence and abilities, but also determines our shortcomings and limitations. This complex machine can also malfunction or malfunction, causing people to suffer from depression, bipolar disorder, schizophrenia, etc. In recent years, the rapid development of technology has greatly promoted the study of brain science, and brain science is also the foundation for the development of many disciplines such as artificial intelligence, social sciences, and ethics. Brain science is related to human health, social issues, and the exploration of the limits of human potential, so it is of great significance to our daily lives.

In this book, titled "Brain Supplements: Studying the Brain to Understand Yourself", I try to use a concise way, with the timeline of life as the main line, to explain the various stages of the human brain from birth, childhood, adolescence to maturity, to adulthood, aging and finally death. In the process, the book will also introduce common brain diseases in different periods to reveal the instructions given by the brain. At the same time, we will explore the important progress of current brain science research, the advanced technologies developed by scientists to treat brain diseases, and how these technologies can significantly improve our lives and health.

In this popular science book about brain science, you will see the close interaction and mutual promotion between brain science and fields such as medicine, law, psychology, philosophy and computer science. Our brain is so complex and fascinating that it gives us the ability to think, observe, listen and distinguish between beauty and ugliness, good and evil, and ultimately determines who we are and where we will go.

Understanding the brain is the key to better understanding ourselves, others, and the world we live in. Research on the human brain can give us insights into ourselves, which will bring understanding, confidence, and hope for our future.

(The author is a professor at the School of Brain Science and Brain Medicine, Zhejiang University. This article is the preface to the book Brain Supplement: Studying the Brain to Understand Yourself. It has been edited and the title is added by the editor.)