

The Earth, which sustains our existence, has a geological history spanning 4.6 billion years. The initial emergence of life occurred approximately 4.2 billion years ago with the advent of bacteria, paving the way for the subsequent diversification of living organisms and the establishment of a complex, ecologically interconnected system. Current estimates suggest Earth is home to 425 thousand species of plants and 1.5 million species of animals^❶. Among these, the *Australopithecus*, one of our earliest human ancestors, can be traced back to 5.5 million years ago.

In the context of the expansive timeline of 5.5 million years of human existence, humanity occupies a diminutive role within the intricate food chain. Over this period, a staggering 117 billion humans^❷ have participated as predators or prey. A significant transformation occurred approximately 10 thousand years ago, marked by the advent of animal domestication, leading to an increased dominance of humans as predators rather than prey in the food chain. Currently, humans became more actively engaged in the food chain in terms of both range and frequency. This heightened involvement coincided with intensified human interference in ecological processes, a trend that has been particularly pronounced since the Industrial Revolution.

During the splendid history of civilization that began forming 7,000 years ago, humanity has achieved remarkable scientific and technological achievements, continuously expanding our understanding of the world. The theory of relativity broadens our knowledge of the vast universe, while quantum mechanics delves into the intricacies of the super-microscopic world. Despite these accomplishments, three perplexing questions persist for which humanity struggles to provide satisfactory answers:

1. Why humans, as a species of mammals, cannot live as long as expected?
2. Why humans, as a link in the food chain, choose to engage in excessive interference in nature, a behavior that may threaten the survival of future generations?
3. Humans have brains big in size with wisdom, but there is still 11% (about 821 million) of the world population suffering starvation (see Illustration 1-1). Why is such a big hole denting the world order where the dietary interests of so many people are ignored?

❶ IUCN. *The IUCN Red List of Threatened Species*. 2023. <https://www.iucnredlist.org>

❷ Toshiko K, Haub C. *How many people have ever lived on earth?* Population Reference Bureau. 2021. <https://www.prb.org/articles/how-many-people-have-ever-lived-on-earth/>

The aforementioned three pivotal questions constitute the core subjects that shiology intends to delve into.

Food, as the determinant of life, holds paramount importance. It not only sustains life but also underpins all subsequent values generated by life. Therefore, the basis of any and all values associated with life lies in the satisfaction of the body's needs for food, fostering a healthy and enduring life.

Shiance, the progenitor of civilization, propels the advancement of human society. Shiance order forms the foundation of various societal orders. It is imperative to rectify improper shiance behaviors to achieve sustainable civilization.

Shiance issues are not limited to food issues, and food issues are not limited to issues about grains. The spectrum of shiance issues is diverse and extensive. A comprehensive understanding and resolution of shiance issues is essential, avoiding partial and incomplete approaches. For effective management of shiance issues in the future hundred years, a corresponding century-long shiance response mechanism must be established. Our quest is for enduring solutions to shiance problems, anticipating their effects to last for hundred years. Similarly, for the millennial management of shiance issues, a millennium-long shiance response mechanism should be instituted, aiming for solutions whose effects endure for thousand years.

Humanity has envisioned numerous ideal societies, such as the Great Unity of the World proposed by Asian philosophers and the Utopias by European thinkers. However, the right path has remained elusive. A breakthrough comes with the comprehensive and thorough resolution of all shiance issues, ushering in the era of shiance industry civilization and opening the gateway to humanity's ideal society. In that era, our descendants, and their descendants thereafter, will not be troubled by shiance issues from birth, knowing that the same ease will extend to their offspring. During this time, individual lives will become more relaxed and joyful, group conflicts will significantly decrease, and the continuity of the human species will be better assured.

The holistic and thorough resolution of shiance issues marks the beginning of humanity entering into a comprehensive civilization. The comprehensive knowledge system capable of addressing shiance issues in their entirety is shiology. Shiology is the study of survival, individual longevity, harmonious coexistence within groups, and the continuity of human species. Shiology transforms individuals and in turn, it changes the world.

1-1 The Introduction to Shiology

Food refers to any substance ingested orally to sustain human life and health. Shiance refers to any human activity related to the acquisition or utilization of food and the consequential outcomes of the activity. Shiance knowledge refers to the subjective responses of humans to Shiance.

Shiance knowledge serves as a theoretical instrument for addressing shiance issues. Devoid of shiance knowledge, solutions to shiance issues remain elusive. The extent of our comprehension of shiance directly influences our capacity to resolve associated problems. If shiance issues can't be solved effectively, sustainable development of human beings can't be achieved.

1-1.1 Shiance and Human Knowledge

Shiance stands as the paramount factor for human survival, a timeless truth persisting through the evolution of civilization, changing times, and technological advancements. Regardless of societal progress in clothing, housing, transportation, medicine, communication, finance, aerospace, arms, and more, the steadfast principle remains: Shiance comes first, and other things come after it. Resources are limited and shiance should be given priority. If other things top the agenda, social harmony and the existence of humankind will be thrown into question.

Throughout the vast expanse of human development, shiance has not only preceded other endeavors but also predated civilization. The advent of agricultural society around ten thousand years ago, characterized by the domestication of food, marked a pivotal development in human history. The progression of agriculture led to surplus food supplies. This surplus allowed people spare time, leading to the emergence of various professions and industries, and subsequently,

the gradual formation of human civilization. Thus, it can be said that civilization and all other human endeavors stem from shiance. Shiance is ancient, predating civilization; it is the precursor, with else following. This represents an enduring objective fact that cannot be altered; it is a continuous objective law that cannot be changed.

Shiance knowledge is the prerequisite for resolving shiance issues, which extend beyond the simple concern of food security. Food security primarily deals with the quantity of food and is one of the nine major shiance issues for humanity. Additionally, there are issues within the realm of food utilization, such as eating methods, eating-induced diseases, dietary therapeutics, and eating rights. The aforementioned are explicit shiance issues, and there are implicit shiance issues as well, including social conflicts, ecological conflicts, average life expectancy, and sustainable development. These implicit shiance issues have long been misperceived. In reality, shiance issues serve as the foundational concerns underlying various challenges in human societies.

The comprehensive resolution of shiance issues awaits a holistic knowledge of these matters. Understanding of one shiance issue allows for the resolution of that specific issue; understanding ten shiance issues enables the resolution of all ten; understanding a subset of shiance issues facilitates the resolution of that particular subset. Partial knowledge leads to partial resolution, while surface-level understanding only offers temporary solutions. Only a comprehensive, thorough knowledge can result in thorough resolution of shiance issues, which will be a great milestone in the progress of human civilization.

Despite the splendid history of human civilization that began forming 7,000 years ago, the issues related to shiance remain unresolved to this day. The fundamental reason lies in the absence of a comprehensive and holistic shiance knowledge system.

1-1.2 Human Consensus on Shiance Issues

The consensus on shiance issues serves as the cornerstone of human public values in the realm of food. It forms a framework for humanity to address food-related matters collectively. So, does humanity share consensus on shiance issues?

If so, what are these consensuses? In my opinion, there are five key consensuses: 1. Everyone needs food; 2. Food is needed daily; 3. Food comes from the same sources; 4. Food is consumed for longevity; 5. Food is consumed for posterity.

“Everyone needs food” emphasizes the spatial necessity of survival for each individual. “Food is needed daily” highlights the temporal necessity of survival for every individual. “Food comes from the same sources” indicates that humanity shares a common food ecosystem. “Food is consumed for longevity” signifies that everyone seeks health and long life through food consumption. “Food is consumed for posterity” expresses the desire for sustained food supply to ensure the continuity of offspring.

Identifying these consensuses empowers us to unite efforts to address shiance issues. These principles represent the shared values of 8[●] billion people, serving as a substantial force to resolve shiance issues and their derivative problems. In the progression of human civilization, the public value of shiance should take precedence and be prioritized over other considerations. This order cannot be reversed.

1-1.3 The Status Quo of Shiance Knowledge

Shiance represents objective facts, and knowledge is the understanding, awareness, or familiarity that individuals or communities gain about objective facts. Shiance knowledge marks the beginning of human wisdom and the accumulation of human civilization. This knowledge has been transmitted through two primary methods: oral tradition and recorded formats. V There are many kinds of recording media of shiance knowledge, ranging from ancient rock paintings depicting food and its acquisition to texts in later stages, and ultimately to today’s digital multimedia. Shiance knowledge encompasses three areas: food acquisition, food utilization, and shiance order.

Shiance knowledge is a valuable asset derived from the processes of understanding and utilizing nature, serving as a significant force propelling the evolution of civilization. Today, shiance knowledge has five characteristics:

● Antonio Guterres. *Eight Billion People, One humanity*. China Daily. 2022-11-15. p. 9

voluminosity, isolatedness, fragmentariness, cognitive erroneous zones, and cognitive blind zones.

The first characteristic is voluminosity. Voluminosity is to describe the immense volume of shiance knowledge. Over 7,000 years of the history of human civilization, humankind has never ceased to pursue cognitive activities about shiance. In today's world, there are over 200 countries and regions, 8 billion people, more than 1,800 ethnic groups, and over 5,000 oral and written languages. Humanity is immersed in an extensive sea of shiance knowledge presented through languages, experiences, writings, articles, books, pictures, videos, etc. The magnitude of shiance knowledge is challenging to quantify, constituting a significant portion of the human knowledge domain. What is certain is that no knowledge about any other thing can surpass human knowledge about shiance.

The second characteristic is isolatedness. Isolatedness is to describe the separation of shiance knowledge in different scopes. In the modern scientific system, the system of shiance knowledge is different from other knowledge systems and is yet to form a cohesive whole. Subjects like agricultural science, food science, and nutrition exist separately, lacking direct relationships, and they fall into distinct disciplinary categories. Food science is classified under engineering, while nutrition falls under medications. With isolated knowledge which is the mainstream of human knowledge of shiance today, it is impossible to see the whole picture of shiance. It is just like what the parable "Blind Men and the Elephant" is about, preventing people from perceiving the entirety of objective shiance. Knowledge of parts cannot substitute for knowledge of the whole.

The third characteristic is fragmentariness, indicating that human comprehension in domains beyond agricultural science, food science, and nutrition remains limited and dispersed. The scope of shiance knowledge extends across various disciplines, creating challenges in its identification, differentiation, and classification. This dispersion is exemplified in the cataloging systems of contemporary libraries. Despite the presence of diverse literature addressing shiance, there has been no evolution towards a comprehensive system or an independent category for shiance. For instance, in the Chinese Library Classification (5th Edition), topics concerning food materials are categorized under agricultural science; aspects of food processing are partially included under industrial technology; food nutrition is typically aligned with medicine and health

sciences; and literature pertaining to food and shiance behavior is distributed among multiple categories.^❶

The fourth characteristic is cognitive erroneous zones, referring to prevalent errors and misconceptions within the realm of shiance knowledge. Due to the long-standing limitations in the understanding of shiance, especially within certain regions, groups, or specific matters, there has been a tendency to overly emphasize particular viewpoints or aspects. This has led to a skewed understanding of shiance, hindering the adoption of a more comprehensive and holistic perspective. Consequently, a multitude of cognitive errors in shiance have emerged. Such cognitive erroneous zones are intricately linked with regional, religious, and cultural contexts, exerting a significant influence on contemporary thought and behavior patterns. They represent a substantial barrier to an accurate and nuanced understanding of shiance.

The fifth characteristic is defined by cognitive blind zones, which denote the lacunae in our knowledge of shiance. Despite longstanding efforts to elucidate shiance and the rapid advancements in modern science, numerous aspects related to this field remain elusive. This can be attributed to two primary factors: the knowledge limitations in scope and depth that leave several areas unexplored, and the dominance of fragmented knowledge of shiance without a unified cognitive framework, which has precluded the development of a comprehensive knowledge system. Consequently, this has led to the emergence of numerous blind spots and gaps in our understanding of shiance.

Japanese scholar Naomichi Ishige has summarized the elements of shiance knowledge and the fields covered by these elements from the perspective of food culture (see Figure 1-1). Personal-level elements include nutrition, preferences, appetite, and others, totaling seven, while social-level elements include health, taste, physiology, dietary habits, and others, totaling thirteen. These elements extend into seventeen different academic disciplines. The structure spans both the acquisition and utilization sectors, crossing natural and social sciences, and is divided into four quadrants: organism, food life, economy, and technology. This figure demonstrates the complexity and lack of system in the current state of shiance knowledge.

The absence of a holistic shiance knowledge system hinders our ability to fully

❶ *Chinese Library Classification (5th Edition)*. National Library of China Publishing House

understand and regulate the overall aspects of shiance. This limitation constrains our capacity to completely resolve shiance issues.

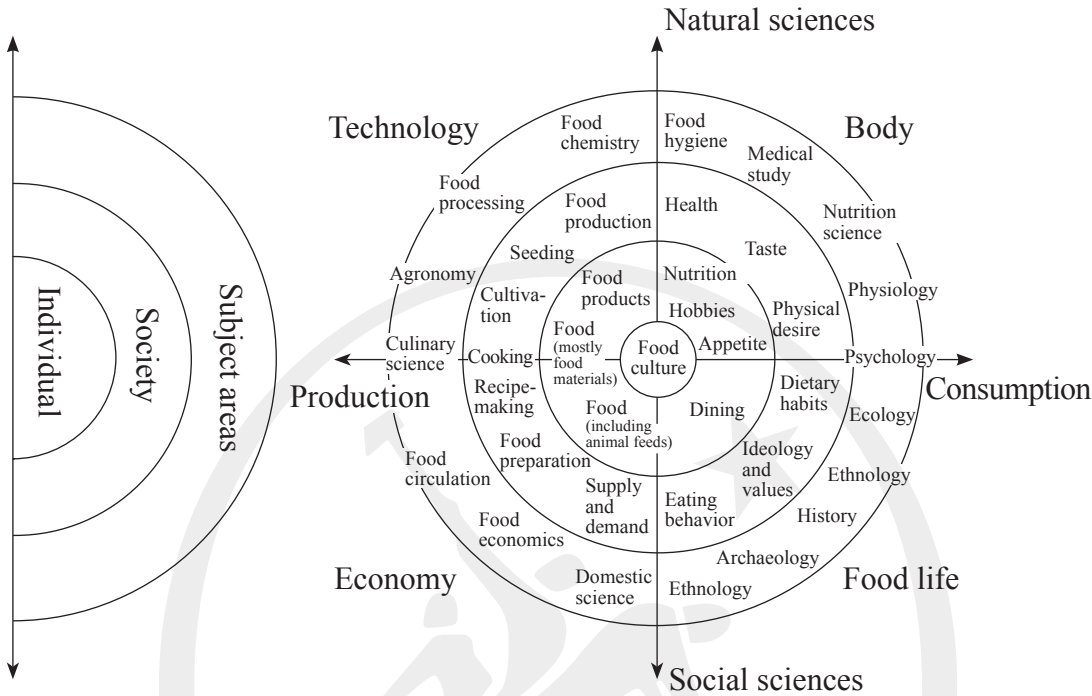


Figure 1-1 The cognitive construct of shiance in terms of food culture^①

1-1.4 Developing a Holistic System of Shiance Knowledge

How can we gain a more comprehensive and accurate understanding of shiance? How should we correctly appreciate the significant value of shiance in the evolutionary process of human civilization? How can we better harness and utilize the immense power of the consensus on shiance? How can we more effectively resolve the numerous shiance issues faced by humanity? Relying solely on traditional knowledge systems is insufficient. To abandon the inherent “cure

① Naomichi Ishige. The Perspectives on Food Culture Studies. DOMSSU. December 2011. p. 10

the head when the head aches, cure the foot when the foot hurts” mindset and put an end to the “Blind Men and an Elephant” cognitive history, we must explore new ideas and find new methods. To address the objective whole of shiance, it is necessary to establish a holistic knowledge system, which I have named “shiology”.

Many scholars have recognized the importance of building a holistic and universal knowledge system. For example, Erwin Schrödinger^❶, one of the pioneers of quantum physics, noted, “We have inherited from our forefathers a keen longing for unified, all-encompassing knowledge. The name ‘university’ reminds us that, from ancient times to many centuries, universality was the only aspect fully credited. However, the expansion in breadth and depth of various branches of knowledge in the last century or so has plunged us into a peculiar dilemma”.

I was often asked, in today’s world of advanced human science and comprehensive disciplines, do we still need shiology? My answer is affirmative: it is not only needed, but urgently so! Our concern is to connect previously disjointed shiance knowledge, from the acquisition of food to its utilization, and then to the aspects of shiance order. Shiology is the result of this holistic thinking, born from and for the resolution of all shiance issues. The establishment of shiology represents a revolutionary development in humankind’s shiance knowledge. Shiology aims for a holistic study of shiance, thereby establishing a complete knowledge system. It is not a mere mechanical assembly of knowledge from various disciplines, but a new, substantial whole knowledge system formed by integrating relevant disciplines around the core of shiance and discovering its own regulations.

Since the birth of the modern scientific system 300 years ago, many fields have developed comprehensive knowledge systems, becoming powerful tools for solving problems. However, shiance knowledge has not been summarized into a whole system. Shiance issues form a complex whole, and to understand and manage them more accurately and effectively, it is essential to establish an integrated knowledge system. Addressing the whole with a holistic approach, not part by part or part versus the whole, is the fundamental strategy for thoroughly resolving shiance issues. I advocate not only for the establishment of a scientific system of shiology but also for prioritizing shiance, shiology, and the shiance

❶ Schrödinger E. *What is life? the physical aspect of the living cell*. 1946.

industry, as they are crucial in solving the major aspects of significant conflicts faced by humanity today and in the future. Facing today's shiance issues and their derivative problems with a holistic perspective and establishing an integrated shiance knowledge system is the only correct choice. The value of shiology is immense, serving as a golden key to resolving shiance issues today and in the future.

From an epistemological perspective, the principle of the shiology system is simple: acknowledge the value difference between the whole and the parts, summarize the knowledge of parts into a holistic understanding, and recognize that the value of the whole is greater than the sum of its parts. However, understanding the shiology system from the modern scientific system's perspective is not easy, as it breaks down the barriers set up for shiance-related disciplines in the modern scientific system, barriers that have existed for hundreds of years and educated generations. Indeed, the modern scientific system is neither perfect nor beyond question. On the contrary, it has developed amidst continuous questioning. Perhaps because shiance is so commonplace, the value of its holistic cognition has been long overlooked. Having been engaged in shiance-related work throughout my life and dealing with various shiance issues, I have found that completely solving a particular shiance issue always involves other shiance issues. Following these issues for decades, one leads to another, one group to another group, one system to another system, and ultimately, I discovered that they form a whole. We must understand them from a holistic perspective to address them comprehensively and accurately. Therefore, I have proposed and constructed a holistic system of shiance knowledge. Once this system is established, it will reveal many of our past errors, biases, and loopholes. With this holistic knowledge system, we will be able to resolve previously unsolvable shiance issues and thoroughly solve all shiance issues for humanity.

The development of the modern scientific system faces two problems: one is the neglect of midscopic studies in terms of directions and research fields; the other is the overlook of holistic studies in terms of methodology and thinking. "The theory of relativity" and "quantum mechanics" have taken human cognition to macroscopic and microscopic extremes, benefiting humanity while moving further away from the normal range of human existence, seemingly forgetting their original purposes. "Yin-yang theory", on the other hand, focuses on midscopic studies of the whole for harmony and advocates a sustainable development

perspective between nature and human. The yin-yang theory posits that every entity consists of two aspects, A and B, with relationships of unity, opposition, and mutual transformation between them, and the exterior of one entity being the interior of another. In the last 300 years, modern civilization has played a significant role in human progress. For a long time, people have consciously or unconsciously neglected the modes of thinking and research findings of traditional civilization. In fact, both traditional and modern civilizations play positive roles in human social development and life practices, but from different angles and in different ways. We must avoid using “one-sided beauty” to cover up “the whole truth”. Modern microscopic cognition and traditional macroscopic cognition are the two magic weapons in the construction of the scientific system of shiology. Yin-yang theory, relativity theory, and quantum mechanics are the three major cognitive tools in the construction of shiology.

