



Proceeding Paper

From the Ternary Relation of "Subject-Information Entity-Object" to Observe the Emergence Peculiarity of Modern Philosophical System [†]

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Abstract: Understanding the ternary structure of "subject-information entity-object" actually brings out a modern philosophical system with the connotation of "language philosophy-information philosophy-cognitive philosophy" that is, the internal relationship of three basic philosophical concepts with "thinking-emergence-existence" as the core. This paper attempts to explore: 1. The relationship between emergence and thinking; 2. The relationship between emergence and existence; 3. The relationship between emergence and information; 4. The application of emergence in modern philosophy; 5. Enlightenment of emergence to future society.

Keywords: subject-information entity-object; cyberspace; emergence; boundless; transcendence; philosophy of information



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1. Introduction: Information Is a New Entity

For a long time, information has only been recognized as the medium between the cognitive subject and the cognitive object. We cannot understand the object itself, we can only understand the information of the object, or understand the object through information. This is very similar to the distinction between the Thing-in-itself and Appearance [1] (p. 220) in Kant's philosophy: Information is a recognizable phenomenon presented by the cognitive object.

However, the transcendental subject of Kant's philosophy is from the subject construction itself, and this could cause a consequence: What kind of cognition construction will present the same cognition result? This philosophical concept leads to the conclusion that all objective cognition is actually subjective cognition. Moreover, is information a phenomenon? If information is a kind of phenomenon, it should belong to the scope of empiricism; however, if information is not a phenomenon, it should belong to the scope of rationalism. In fact, information comes neither from people's feeling nor their thinking. It is a new entity that can be found only when human science and technology develop to a certain level.

Although people have been dealing with all kinds of information since ancient times, this information has no substantive meaning. The "information" of the 20th century is closely related to the development of computer networks because there is a machine intermediary between people and the world, which transforms people's experience process into digital signals and people's thinking process into program algorithms, the relationship between people and the world is no longer a simple subject—object binary relationship, but a ternary relation of "Subject-Information Entity-Object". The space-time dimension between people and the world also suddenly "emerges" as a cyberspace or virtual world,

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which means the emergence of information is no longer a human subject construction but an independent entity that can function outside the subject and object.

2. Information Entity Exists in Cyberspace

Today, as a cognitive subject, human beings no longer deal directly with cognitive objects, but firstly deal with the natural field, the social field and even the human cultural field, psychology field and spiritual field through the cyberspace or virtual world constructed by computer network. Furthermore, if the subject is cyberized and the object is also cyberized, then the communication between subjective and objective can be formed. Therefore, we must understand "information" on the basis of cyberspace and virtual space, which is the information as an entity. Then, in addition to the two entities of traditional epistemology [2] (p. 55), "cognitive subject and cognitive object", there should also be an "information entity".

3. Information Entity Involves the Theoretical Frontier of Modern Science, Mathematics and Philosophy

On the surface, the cognitive subject and the cognitive object are not homogeneous, so in order to form cognition, we must find the common basis which is formed by their interaction but outside themselves—the information entity. However, the information entity, the cognitive subject and the cognitive objective are not in the same time and space. Both the cognitive subject and the cognitive objective are part of natural time and space, which are restricted by mathematical and logical rules. But the information entity is completely independent, even in a certain sense: It is not restricted by mathematical and logical rules.

4. The Emergent Characteristic of Information Entity Implies Ternary Structure

John Holland, Professor of Psychology and Professor of Electronic Engineering and Computer Science at the University of Michigan, wrote a book called *Emergence: From Chaos to Order*, which puts forward the concept of "emergence": what comes out is more than what goes in [3] (p. 123). Emergence means that once information becomes a structural existence, it can show its ontology and subjectivity. Therefore, the information entity itself contains a structure, but this structure is not a predetermined prior structure, nor a fixed empirical structure, but an indefinite transcendent structure. Anaximander, an ancient Greek philosopher, regarded "Boundless" as the origin or noumenon of all things [4] (p. 9). So, for the ternary structure of "subject-information entity-object", which one is more original or more basic? Or is it the coexistence of them?

5. The Emergence of the Information Entity Has a Transcendental Nature

If the subject category is defined as the field of thinking and the object category as the natural field, which field should be defined as the information entity category? We could call it the emerging field. The field of thinking is a priori, the field of nature is empirical and the field of the information entity is transcendent. The essence of a priori is a philosophy of language [4] (p. 463), the essence of empiricism is a philosophy of cognition and the essence of transcendence is a philosophy of information.

Understanding the ternary structure of "subject-information entity-object" actually brings out a modern philosophical system with the connotation of "language philosophy-information philosophy-cognitive philosophy", that is, the internal relationship of three basic philosophical concepts with "thinking-emergence-existence" as the core. This paper attempts to explore: 1. The relationship between emergence and thinking; 2. The relationship between emergence and existence; 3. The relationship between emergence and information; 4. The application of emergence in modern philosophy; 5. Enlightenment of emergence to future society.

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