



Proceeding Paper

Temporality of Subjective Information †

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Abstract: What philosophy truly needs is to re-present the problems of the relationship between the natural world and consciousness, matter and spirit at a higher and deeper theoretical level. Only in this way can we make substantial breakthroughs in our exploration of the issue of time. The author wants to break the dualistic division of existence in traditional philosophy and lead to the understanding of the dichotomy of time structure. Using information as an intermediary to communicate material and spirit, subject and object also overcome the previous philosophical research on the dichotomy between material world time and spiritual world time, objective world time and subjective world time. Within and between different levels of subjective information activities, there are multiple and complex spatializations of time and temporal interaction of space. In these multiple and complex interactions, the four-dimensional interaction of time and space is omnidirectional, where the spatio-temporal structure itself has the characteristics of holography.

Keywords: subjective information; temporality; four-dimensional existence; holography

1. The Redistribution of the Field of Existence and the Prominence of the Problem of Time

"All the 'existence' in the whole universe (world, nature) can be classified into three major fields like objective reality, objective unreality, and subjective unreality" [1] (p. 117). Objective reality is the material world with a specific qualitative—energetic structure, objective unreality is the world of self-information (while objectivity is not a free information world), and "subjective unreality" refers to phenomena such as consciousness and spirit, that is, the realm of self-made and regenerated information. The "real" is matter that has not yet shown various complex relationships, so "real" can be understood as the way matter exists, while information exists indirectly and can be understood as "insubstantial". Thus, information philosophy holds that the whole field of existence can be divided into the real and the unreal, and that the world of information exists in an "unreal way", that is, in an indirect way, and that the spirit (subjective existence) and the "objective unreal" have a common "unreal" nature, which together constitute the information world of indirect existence.

The redistribution of the field of existence by information philosophy triggered a fundamental change in the level of philosophical theory and established a new view of existence—the world is a world unified on the basis of matter—where matter and information (direct and indirect existence) exist both, or all existents can only be the unity of direct and indirect existence. Since the world is a dual existence, all things are also bodies of information, and the direct and indirect existence of things interact. Information philosophy finds that "objective insubstantial" can communicate with "objective real" and "subjective insubstantial", and finds the intermediary for the transformation of matter and spirit, i.e., it considers self-information as the intermediary for the communication



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between matter and, in other words, we believe that self-information is the intermediary for communication between matter and self-information and regenerative information. By using information as a mediator to communicate between the material and spiritual worlds, we overcome the traditional philosophical division of existence = matter + spirit and the unreasonable interpretation of spirit as a "property of special matter" in traditional materialism. The subjective information is the information of the spirit itself, which is the higher form of activity in the world of information, the higher form of activity of the displayed existence, consisting of self-information and regenerated information.

Both objectively insubstantial information and subjectively insubstantial information indicate the indirectness and disembodiment of the existence of information, and this indirect existence without setting up an entity itself affirms the fundamental significance of time for existence. "The structure and state of anything's direct existence is prescribed by the indirect existence it condenses, and in the same way it can be said that the structure and state of anything maps and prescribes information about its own history, present, and future." [1] (p. 129). The specific content of the indirect existence of things is expressed in the indirect existence of the three temporal states about the history, present and future of things, which also shows that the indirect existence of things is expressed in the relationship of the indirect existence between the three dimensions of time. Information philosophy considers the world itself as both a direct existence or the existence of the material world and a temporal existence in which information is displayed, condensed and created, while the direct existence or the existence of the material world and the indirect existence of information are intertwined and doubly evolved. The question of time becomes the central issue in the redistribution of the field of existence and the new understanding of existence by information philosophy.

Information philosophy redefines the world as a dual existence of matter and information from the ontological level, which inevitably leads to the evolution of the world as a dual evolution of material form and information form and the evolution of the world is all in the interaction of space-time, so information actually has the closest relationship with space-time. Information condensation is closely related to spatio-temporal relations, and information philosophy reflects the unification of scientific and philosophical views of time by illustrating the relationship between information condensation and spatio-temporality. Information philosophy decodes the information code of the passage of time, but also the information of spatial variation, and decodes the preservation of "temporal history" in the existing spatial structure, i.e., time is preserved in space in an indirect way of existence. The transformation of space-time is mediated through the condensation of information, which links the traffic between space-time, and information always shows its existence in the process of space-time transformation. Spatio-temporal transformation condenses information with universality; whether it is self-referential information or self-contained, regenerative information is embodied in a holographic realm of spatio-temporal interconnection.

What philosophy really needs is to re-present the problem of the relationship between nature and consciousness, matter and spirit at a higher and deeper theoretical level, and only then will we have a substantial breakthrough in the exploration of the problem of time. It is the author's intention to break the traditional philosophical understanding of the dichotomy of time structure due to the dualistic division of existence and to use information as an intermediary to bridge matter and spirit, subject and object also to overcome the previous philosophical studies of the dichotomy of time in the material world and time in the spiritual world and time in the objective world and time in the subjective world. Information philosophy believes that the interactions and transformations of space and time are mediated by information, so the spatialization of time or the temporalization of space is accompanied by the corporatization of information, while the interactions of space and time in traditional physics are on the material level.

2. The Existence and Timing of Subjective Information

2.1. Relationship between Subjective Information Time and Objective Information Time

Information philosophy explains the unity of material existence and spiritual existence at a higher level, which is destined to unify its view of time and space between the objective world and the subjective world. In the cognitive and practical activities of the subject, the scenario of the real existence of information is not a diametrical separation between self-information and self-contained and regenerated information, but the interaction and mutual transformation and the unfolding process of its own evolutionary temporality are reflected in two aspects: on the one hand, it interacts with the information of the objective world; on the other hand, as an advanced form of information form, it has its own evolutionary and constructive information mechanism.

The time of the objective information world is the time at the level of self-information, which is expressed as the order and rhythm of the natural objects themselves unfolding, and this order and rhythm are also complex and diverse, and the time varies from one natural object to another. The unfolding of the temporality of subjective information is based on the fact that subjective information constantly draws information from the objective world for its own evolution and construction so the evolution of subjective information itself is also the process of further expansion of information from the objective world. Like objective information, subjective information is not a ready-made physical existence but needs to draw sustenance from the objective information world to nourish itself. The subject cannot be separated from self-information, and human's own activities can only be understood within the field of interactive activities with nature. The temporality of subjective information reveals the problem of temporality in the subject's cognitive process, but this process cannot be separated from the existence outside the subject. The process of information grasping by the subject is the process of temporal fit between the subject and the object information it grasps, not just the process of the object information acting unilaterally on the subject. Although the time of objective world information is intrinsically unified with the time of self-contained and regenerated information, it is not exactly equivalent, which makes it necessary to further explore the issue of the temporality of subjective information according to the different ways of information existence. Subjective information is different from self-information in terms of its nature, activity and content. Subjective information embodies the subject's ability to communicate objective information with subjective information that is grasped, understood and created by the subject.

Subjective information is the information of the spirit itself, and like the world of objective information, the evolution of subjective information itself is a temporal unfolding process. The temporality of subjective information differs from the temporality of objective information in the subject's active grasp and creation of existence in its own unique information way and information mechanism, the temporality of the subject's historical relationship with existence, the presentation of reality and the future construction of the subject's cognitive process. The temporality of information—philosophical existence here in subjective information means that the manifestation of existence in the subject is always associated with and mediated by the structure of the subject's own physiology and psychology. The process of the subject grasping existence is also the process of existence moving from the objective self to the construction of the knowing subject and revealing itself in the subject constructed by existence itself.

2.2. The Problem of Time in the Structure and State of the Subjective Consciousness

The existence of subjective information time is inseparable from the consciousness of subjective information time, so it is necessary for us to start with the question of exploring time in the structure and state of subjective information consciousness. The structure and state of subjective consciousness are also mapped and specified in the information about its own history, present, and future. So we can analyze the problem of time in the structure of subjective consciousness in terms of the relationship of time between the history, present and future of subjective information itself. It should be noted that

self-conscious information and regenerated information express different aspects of the subject's consciousness activity, and their temporality is also distinct. Therefore, we will also discuss the inner structure of the time of self-conscious information and regenerated information separately. According to Husserl, "In perception together with its lingering, the original temporal object constructs itself, and it is only in such a consciousness that time can be given" [2] (p. 84). Husserl's view of time is intrinsic and a function of consciousness. Husserl absolutizes the subject's initiative in the process of knowing, as emphasized by Kant, so the intrinsic logical starting point of his view of time is the subject as time. However, Husserl's relationship between time and subject is a logical unfolding and does not participate in the overall evolutionary process of the world to understand the relationship between time and subject, which is where the temporality of subjective information differs from the a priori philosophical view of time. This aspect of the temporality of subjective information also serves to illustrate the unity of the subject in relation to time, but instead of giving importance to the logical analysis of the structure of the subject's inner consciousness, it emphasizes that the subject's own ability to construct and create information is the unfolding process of its temporality, that is, how the subject itself participates in its own existence and undertakes the relationship between man and the world.

3. Characteristics of the Temporality of Subjective Information

3.1. The Problem of Time Arising from the Subject's Practical Activities

As the level of human information activity increases, the way of subjective information activity does not only manifest itself in the form of subjective presentation to the interior of oneself but also involves the practical sphere. It is necessary to go beyond the inner structure of subjective consciousness and extend it further to the problem of time arising in the practical activity of the subject.

Practice is the intermediary of our relationship with the objective world, and the information activity of practice itself is the process of unity in which subject and object are intertwined, intrinsically integrated, and mutually based, which embodies the intrinsic integration of the time of subjective information and the time of objective information. The practical activity itself cannot be separated from the subject's temporal consciousness, and the subject creates the association of information about the future through the association of the information condensed in the past. Therefore, information philosophy considers practice as having the nature of the subject's information activity, which is not just a material activity, but a process of information movement.

Therefore, information philosophy attaches importance not only to the subject's own internal time problem but also to the time problem in the cognitive and practical activities arising from the interaction between the subject and the object. Practical wisdom is the question of how we can dynamically act and guide the interaction and mutual transformation of subjective and objective space-time, which is also the question of how we can handle, guide and carry the relationship between ourselves and the objective world.

3.2. Interpenetration of the Four Dimensions of Time, Spatio-Temporal Transformation and Holographic View of Time

The levels and inter-levels of subjective information activities have multiple, complex interactions, and the temporality of performance during this period is even more complex. As a mature cognitive subject, people's information activities are not single-line synthesis but highly comprehensive, and the temporal characteristics reflected here are not a certain aspect of a single line. The evolution of the intelligence of the human information activity system is a comprehensive evolutionary approach in which the whole and the parts are a new integrated construction process, and there are generally nonlinear interactions. The intelligent evolution of human information activity system is a way of all-round evolution, in which the whole and part are a brand-new comprehensive construction process and there is a universal nonlinear interaction.

The mutual transformation of information activity levels is the result of the interaction caused by different levels of information, and the resulting changes in content and mode caused by the interaction are also the flow of the spatial structure, which presents the passage of time. The interaction and transformation between different levels of information can also be abstracted as the interaction and transformation between space and time, i.e., the spatialization of time and the temporalization of space effects are manifested between the levels of human information activities. The spatialization of time is manifested by the condensation of time information in the three dimensions of space so that time becomes the structure of space and is preserved. In this way, time acquires the nature of the three-dimensional presentation of space, and at the same time, the traditional onedimensional passage of time is still presented in the process of the movement of things so that time has the four-dimensional characteristics of three-dimensional presentation and one-dimensional process. Similarly, the temporalization of space is manifested as the information of temporal relations condensed in the three-dimensional structure of space, thus acquiring a temporal dimension so that space also has its own four-dimensional characteristics. In this way, in the process of information-mediated space-time interaction, both time and space acquire the specificity of four-dimensional characteristics. It is through this effect that the internal integration of the transformation of time and space is achieved.

It should be noted that it is precisely because of information as an intermediary that space-time can achieve the unity of inherently integrated relationships and all take on the characteristics of a four-dimensional existence. There are multiple and complex interactions within and between different levels of the subject's information activities, fully reflecting the holographic nature of human information activities. The multiple and complex interactions within and between different levels of the subject's information activities are presented in their corresponding spatio-temporal structures. The spatio-temporal interpenetration and spatio-temporal mutualization achieved in these multiple and complex interactions are all-rounded, where the spatio-temporal structure itself has the characteristic of holographicity.

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