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RESEARCH ARTICLE

POSITIVE INFORMATION AND DEFINITION OF LIFE

*Rulin xiu

Hawaii Theoretical Physics Research Center, 16-266 E. Kipimana St, Keaau, HI 96749, USA

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ABSTRACT

Current physics has not yet provided a complete mathematic and quantitative description for a life system. In our previous work, we proposed to introduce the concept of positive information into physics. We defined positive information as the connection a system has with others and the order within itself. We defined the negative information as the disorder and disconnection within a system, which corresponds to the entropy in current physics theory. We showed how to calculate positive information. In this paper, we study how to use the concept of positive information to mathematically define the life system and explain the purpose of life.

Key words: Entropy, Volume, Pressure, and Free Energy.

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INTRODUCTION

Physics is the foundation of natural science because it provides basic concepts and techniques to describe and study what everything is made of and how everything works. However, in some ways, current physics has not provided an adequate way to describe the life system. For example, so far, a quantitative mathematic description and definition of life is still lacking. In physics, thermodynamics describes and studies a macroscopic system using the physical quantities such as energy, entropy, volume, pressure, and free energy. However, the life system is not completely a thermodynamic system. Thermodynamics can't offer an adequate complete description about life phenomena. This is because the life system has order while thermodynamics can only describe disorder with the entropy.

We suggest that new concept is necessary to be introduced in physics to describe the life system. In our previous work, we introduced the concept of positive information. We defined positive information as the order a system has within itself and the connection a system has with others. In contrast to positive information is negative information. Negative information is the disorder and disconnection a system has. It corresponds to the entropy already defined and studied in current science. In the paper [Ref 1], we study the mathematic formula to calculate the positive information. In this work, we explore how to use positive information to study the life system. We show that positive information may provide a quantitative way to define the life system.

It gives a mathematic insight about the purpose of life. We suggest that positive information may play a significance role in studying the life system and phenomena. In the following we will first review the definition of positive information. Then we will apply this concept to studying the life system.

Definition of Positive Information and Negative Information:

In our previous work, we show [Ref 2] that everyone and everything is a vibrational field that carries matter, energy, and information. Matter is what we see, hear, and observe. Energy is what moves and changes matter. Information is what informs. It gives the shape and form to matter and energy. Information has three aspects, the content of information, receiver of information, and processor of information. They correspond respectively to soul, spiritual heart, and mind. In our previous work [Ref 1], we showed that there are two kinds of information: positive information and negative information. We defined positive information to be the order, connection, and certainty that a system has within itself and with others. And the negative information is the disorder, the disconnection, and the uncertainty in a system. Negative information corresponds to entropy in current physics. The information defined in information theory by Claude Shannon and other physicists is in fact negative information. Entropy measures negative information in a system. To calculate the positive information of a system, one needs to calculate the correlation function the system has. In our paper [Ref 1], we show how to calculate positive information and give it a mathematic definition. We indicate that positive information is an important physical quantity for studying the phenomena such as superconducting, super fluid, liquid, phase transition, and more. In our previous work [Ref 2], we also showed that spirit or soul is the content of

*Corresponding author: Rulin xiu,

Hawaii Theoretical Physics Research Center, 16-266 E. Kipimana St, Keaau, HI 96749, USA.

information. Through the quantum entanglement, soul has the power to change the matter and energy instantly and nonlocally by changing the content of information. This is the so called miraculous quality of soul. The more quantum entanglement we have, the more miraculous soul power we have. Quantum entanglement is a kind of positive information. We can see that the more positive information we have, the more soul power and influence we have. In the following, we will explore to use positive information to study the life system. We will show that positive information may provide a way to quantitatively describe and study the life system and give us deep insight about the purpose of life.

Positive Information and Life System: It is easy to notice that life is a system that has positive information. For life to occur, order and connection must be present. Cell in our body are connected with some of the other cells and our organs are connected with each other so that our body can behave in an orderly way and carry through certain functions. We have positive information. If one observes a life system, one can find that life is a system that is capable of taking in energy and matter to maintain and enhance its positive information, which is the order and connection it has. For example, a plant absorbs light from the sun and nutrients from the earth. It utilizes the energy of the light to turn the matter with lesser order, such as dirt, air, and waste into matter with higher order, such as roots, stems, leaves, fruit, nuts, and more. The organic “food” produced by the plant has more positive information and higher free energy. It can rejuvenate and nourish human beings and animals. Human beings and animals can turn the organic food into something with even higher order, such as more sophisticated body systems, thoughts, music, books, and more. The more positive information a life system has, the healthier, wiser, more capable and influential it is. In view of this, we propose a mathematical definition for life:

Mathematical Definition of Life: Life is a system that can maintain, increase, and develop positive information, the connection with others and order within itself. From this understanding and definition about life, we can easily gain the insight about the purpose of life.

Purpose of Life: The purpose of life is to accumulate and enhance positive information. Plants increase positive information when they grow leaves, roots, seeds, and fruit as order is contained in them. Animals grow positive information through its body, activity, and reproduction. Human beings are capable of developing positive information through more advanced activities such as creating music, books, mathematics, philosophy, science, communities, countries, companies, cultures, traditions, and more. The journey of a life system is marked by the positive information inside it. When a life system, such as a plant or human life, starts, it begins to grow positive information. At the same time, negative information also increases. At the beginning, the positive information in a life system is greater than the negative information. As the life system grows, at a certain time, the growth of positive information slows down and even stops. Then the growth of negative information increases. When negative information becomes more than positive information,

the life system starts to become old. When its negative information becomes much more than the positive information, it becomes sick. When the positive information in a life system becomes too low, it dies. This is a normal cycle for a life system. A life system uses the mechanism of reproduction, the influence of its action, and its vibrational field to pass on its information to the next generation. In this way, the descendants can continue learning from and processing the ancestor’s past information so that they can create even higher levels of positive information.

Conclusion: In this paper, we propose to use positive information to give a mathematic definition for life as a system that can maintain, increase, and develop positive information. From this quantitative definition and understanding about life, we gain the insight and conclusion that the purpose of a life system is to enhance positive information. In addition to giving us insight about the purpose of life, there are three benefits from this new definition about life. First, it provides a way to study life quantitatively. This may lead to some breakthrough which may not be possible otherwise. In the history of science, the quantitative definition of a concept plays a crucial role in the progress of science. For instance, the quantitative and mathematic definition of energy stimulated the industrial revolution. The quantitative and mathematic definition of information initiated the information age. Second, this new definition about life can help us gain deeper insight about life and how to prolong and enhance life in an extraordinary way. For example, in the Chinese Daoism tradition, Daoist conduct certain practices to live a long life and even attain immortality. This extraordinary phenomenon cannot be explained by the current life science. Our new definition about life can help us understand this easily. We can see that the practice of these Daoists can reverse the normal life process of decreasing positive information with aging. In this way, they can gain longevity even immortality. We will explore this subject in more detail in our future research. The third benefit of this new definition about life is that it helps us obtain deeper understanding about sickness and develop more advanced technology for healing. We will discuss this in more detail in our future work. We conclude that our new definition of a life system may open up new doors for studying the life system. It deserves further exploration and study.

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