

Article 1:

Schrodinger's Secret Theoretical Space and the Theory of Yin and Yang

Abstract:

In Schrodinger's "what is life", from the so-called the view of naïve physicist (scientist), it confirmed:

- 1) The life system must be the system of aperiodic crystal;
- 2) So, it must be the quantum statistic (thermodynamics) system.
- 3) It must not be the classical quantum statistic (thermodynamics) system; if so, it cannot yield out the accountable physics being so that physics law becomes valid.
- 4) It must be the (advance) quantum statistic (thermodynamics) system (or beyond); if so, due to the input of negative entropy from outside, its entropy is decreased, and negative entropy is increased; thus it could be resulted in low uncertainty (instability, impermanence), and yielded out the accountable physics being so that physics law becomes valid.

Here, in the book of "what is life", it creates the theoretical terrain of (advance) quantum statistic (thermodynamics) which poses high negative entropy, and indeed, it is the advance non-equilibrium thermodynamic system with high negative entropy; that is exactly the theoretical terrain which Chinese philosophy [the theory of yin and yang (the theory of

advance non-equilibrium thermodynamics) and the theory of Major Confucian (the intellectual advance non-equilibrium thermodynamics] is deposited.

So, from the strict scientific view, behind the classic physics (MM—Matter Mechanics), there is classic quantum statistics (QM—Quantum mechanics under Copenhagen’s interpretation); behind the classic quantum statistics, there is advance quantum statistics which poses high negative entropy (QM/AT—advance thermodynamics); indeed, that is the so-called advance non-equilibrium thermodynamics. Chinese system is deposited in this theoretical terrain.

Keywords:

Aperiodic Crystal, Classical Quantum Statistics, Uncertainty, Advance Statistics Quantum Mechanics, Advance Non-Equilibrium Quantum Statistics Thermodynamics, Negative Entropy, Yin and Yang, Major Confucian, MM, QM, AT

Initiated by Schrodinger’s “What is life” and its idea of negative entropy, I pursue my research work, and finally my work is resulted in the establishment of new interpretation of the theory of Yin and yang, and the theory of Major Confucian. So, Schrodinger’s “what is life” is the starting point of my research work. Here, I do some further discussion on the key ideas related to the book of “what is life”.

1.1. Periodic Crystal and Aperiodic Crystal

According the book of “what is life”, in the view of the naïve physicist, for any referred system in the world (as [manifold (Z)]) with defined number of primary elements; its physics presentation as [(manifold (X))]; under the small ratio of W/KT (W as free energy, T as temperature, K as coordination), how to have manifold (Y) to convert [manifold (Z)] to be manifold (X) which meets the requirement of stability and permanence, which implies the singularity and completeness in mathematics (full crystal state in physics).

Here, we have $(Z).(Y)=(X):(Z)$ is the manifold of system in the world; (Y) is the mani-

fold for conversion, it could be interpreted as the perspective upon the (Z), and it is the theoretical framework which it acts on (Z); then, it converts (Z) to (X); (X) is the manifold of rationalism, the science.

In “what is life”, it has the following discussion:

1) If the manifold (Z) is periodic crystal (the ratio of W/KT is high), then $(Z).(Y)=(X)$; Indeed, due to W/KT is high ($? > 1$), so, $(Y)=1$, therefore, $(Z)=(X)$.

For (X) present (Z), it meets the singularity and completeness, (X) is the defined physics being, it poses the law of physics, and it could be treated with physics law in full.

Indeed, that is the approach of MM—Matter Mechanics.

2) For the life, the manifold (Z) is the aperiodic crystal, if W/KT is low, ($? < 1$); then, if (Z) yields (X), (X) does not meet the singularity and completeness; if it is required to pose the law of physics, and it is required to be treated with physics law in full, then, it could have theoretical difficulty. Because of that, it needs the support of manifold (Y), under the conversion of (Y), so that $(Z).(Y)=(X)$.

For manifold (Y), in “what is life”, the manifold (Y), indeed it could be interpreted as the perspective upon the life system according the naïve physicist.

In “what is life”, according Schrodinger, he had an example; he used hereditary substance as aperiodic crystal; for the outcome, not only the stability and permanence of physics, also the stability and permanence of genetic.

According above discussion, in Schrodinger's discussion, the hereditary substance is manifold (Z), the physic is the manifold (X), we also could assign manifold (XG) as hereditary outcome; obviously, for meeting the (XG), its requirement is even higher than (X).

Here, we need to reach: $(Z).(Y)=(X)$, or even more $(Z).(Y)=(XG)$.

With the theory of quantum statistic mechanic, Schrodinger preceded his discussion.

In his discussion, he put the (W/KT) , and the concept of entropy and negative entropy into account. Thus, indeed, he preceded his discussion with quantum statistic thermodynamics. That means he already put the thermodynamic contents into account.

According the behavior of quantum statistic thermodynamics, for life, Schrodinger had the following discussions:

A) First Option

The entity of life system is treated as the system of classical quantum statistic thermodynamics.

Here, for the manifold (Z) , its physics outcome is (X) ; (X) is required to be governed by the law of physics, and it could be treated with physics law in full. When we pursue the approach of “order from non-order-1”—Here, the (Z) is entity of life system, (Y) is the classical quantum statistic thermodynamics; how (Z) is presented out?

According these conditions, with huge number of primary elements, no inflow of negative entropy (posteriors), no branch’s coupling (priori); by this huge number of primary elements, some physics law could be prevailed.

Under this option, the manifold (Z) assigned as $(Z1)$; the manifold (Y) as $(Y1)$, manifold (X) as $(X1)$. Here, manifold $(Y1)$ =huge numbers of primary elements under the classical quantum statistic thermodynamics.

For inducing singularity and certainty, $(Z1)$ is needed to have huge number of primary elements which is far beyond the (Z) . But for the phenomena of life, the manifold (X) is showed as crystal, manifold (X) only consisted of limited primary elements of (Z) ; and $(Z) \lll (Z1)$.

Here, with $(Z1)$, $(X1)$ would have singularity and completeness; but with (Z) , and $(Z) \lll (Z1)$, (X) is unable to have full singularity and completeness. In the same reason, (XG) is unable to have full singularity and completeness.

The conclusion is, for life system (Z) , regarding to the manifold (X) (Or Genetics XG),