

Review of: "The Chinese View on Time – A Reflection on The Concept of Time in Dao/Yijing And Modern Science"

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The Chinese View on Time – A Reflection on The Concept of Time in *Dao/Yijing* And Modern Science

By David Leong

"The Chinese View on Time: A Reflection on the Concept of Time in *Dao/Yijing* and Modern Science" by David Leong is explicit in its goals of demonstrating either the convergence with or complementarity between modern science, through the latest developments in particle physics - Quantum Physics - and Chinese philosophical constructs of *Dao/Yijing*, relying on the Ariadne thread of Time. The argumentation is dense and elaborate. The offered developments are interesting. However, the use of the singular in "The Chinese View on Time" is debatable as there is not one but many Chinese views on Time.

The paper's introduction, 6 pages long, sets the stage and formulates the goal of investigating the nexus of intricate interfaces between free will, consciousness, and time, challenging the law of entropy (the 2nd Law of thermodynamics) and the causality principles, and questioning the existence of time independent from an observer. Quoting Chai (2014), the author introduces the Chinese expression "*you wu hun cheng, xian tian di sheng*", defined as "a pre-existent state of undifferentiated wholeness and chaos before the formation of the heavens and the earth". The concept of *Dao*, "ineffable, indescribable, and timeless", nonetheless "experienced through its manifestations in the world," is introduced, compared, and contrasted with intriguing facets of current quantum physics. The crucial question is then formulated: does "an objective universe exist independently of human observers?", a clear and straightforward reference to the "weak anthropic principle." It asserts that the universe is fine-tuned for the sole reason that we exist to observe it and also stipulates that the universe we are part of must be structured in a way that allows for life, or conscious life, or observers. In short, all the long history of the universe is predicated on or justified by the presence of human observers.

The discussion segment and the core of the paper that follows are 11 pages long. It offers detailed considerations on the issues raised in the introduction, with an exclusive focus on the many facets of the versatile concept of time. The topics addressed, organized in 7 rubrics, range widely. The discussion starts with the analysis of differences between timelessness and timeliness. Timelessness, an exclusively human-made construct, is clearly a "*Geist-spiel*" – or a "*mind game*", a purely aesthetic construct without any measurable manifestation. There is no time without space, and no space without time. The discussion then moves successively to the exploration of the complexity of time – an extraordinarily

difficult concept to define - , reviews the modern theories of time via concepts such as entanglement, derived from current quantum physics, and considerations of free will and consciousness in relation to time.

The argumentation then shifts to time from the perspective of Chinese *Dao* and *Yijing*. The former is viewed “as the reason behind the universe's cyclical flow, where phenomena perpetually emerge, develop, and ultimately return to their root”. And the latter, articulated on the constantly interacting dynamic forces yin and yang, reveals the Space-Time-Number interactive relationship.

Pooling inferences drawn from the review of aspects of quantum physics and ancient Chinese philosophies, the author crafts a Time-Co-Occurrence Model that integrates inflationary chaos, observer interaction, and cyclical and linear time. The conclusion re-asserts the importance of integrating scientific and cultural perspectives in efforts to understand “the enigmatic nature of temporal experience.”

One can but agree with the final statement mentioned above. It depends, however, on how that “integration,” aiming at the formulation of a “Grand Unification Theory” combining cosmic dynamics and creations of the human mind, is carried out. The author relies on aspects of quantum physics: the Heisenberg Uncertainty Principle – “the impossibility to measure the speed and position of a particle at the same time” – and Schrödinger's cat's experience – the observer paradox according to which it is “impossible to know if the cat in the box is dead or alive until observed” - to highlight analogies with a sample of Ancient Chinese philosophies. Such correspondence or partial similarities are fundamentally metaphorical. This kind of exercise is being carried out in different parts of the world today, in Africa, for example, where aspects of quantum physics are used to display correspondence with divination systems.

A brief survey of a small sample of creation narratives [cultural constructs] displays strong cross-cultural similarities:

For Ancient Egypt (Creator Sun-God Atum): “...the universe emerged from a cosmic ocean of nothingness. The creator-sun god Atum, also known as Ra, slept in this primordial sea for eons. Eventually, Atum awoke and willed a small island to emerge from the cosmic sea.”

For Ancient Greece (Chaos): “...in the beginning, there was only *Chaos*, an empty void. But somehow this enormous vacancy gave birth to *Gaea*, the earth, to *Tartarus*, the great region beneath the earth, and to *Eros*, the shining god of love and attraction.”

For China (Pan Gu and the Egg of the World): “...the universe was originally a state of chaos, with the heavens and earth intermingled. Pangu -Dragon - is born inside the egg and sleeps for 18,000 years, during which time yin and yang balance as he grows.”

For Christianity (the Bible): “...in the beginning God created the heaven and the earth. The earth was without form, and void; and darkness was upon the face of the deep. And the Spirit of God moved upon the face of the waters”. The Quran creation narrative is a variation of the Christian one.

For Hindus (Samkhya, Brahmananda Purana): “...there was nothing but an eternal ocean. From this, a golden egg called

Hiranyagarbha emerged. The egg broke open and Brahma, who had created himself within it, came into existence. Then, he created the universe, the earth, and other things.

For the Zuni (New Mexico, United States): "...before the beginning of the new-making, *Áwonawilona* (the Maker and Container of All, the All-father Father), solely had being. There was nothing else whatsoever throughout the great space of the ages save everywhere black darkness in it, and everywhere void desolation. The new earth was flooded and shaken by earthquakes. Small proto-humans with clammy skin, goggle eyes, bat ears, tails, and webbed feet barely survived in muddy island caves.

Finally, for the Zulu (South Africa): "...At first, there was nothing but darkness. Earth was a lifeless rock. But in that darkness dwelt a god, *Umvelinqangi*, whose voice was like thunder and who, when angered, would shake the world with earthquakes. *Umvelinqangi* created a single tiny seed."

Original *Chaos* is featured in many creation narratives, as is also the case for an "initial egg." Modern cosmology is also articulated on an original singularity, the "Big Bang," an initial explosion that scattered matter and presided over the formation of the universe. The widespread cross-cultural similarity outlined above, which can be read as "order out of Chaos," is attributable to the cognitive strictures of the *homo sapiens sapiens* mind. It is likely based on the imperative urge to make sense of the existing reality. The nature of time and human conceptions of time are fundamentally different issues. The human capacity to create binding mental realities is featured in all human cultures. The powerful and ubiquitous symbol of the Dragon in Chinese history and culture is such an example. It is also the case for the "Minotaure," the Unicorn, the Phoenix, etc...

Shifting to natural history and an evolutionary perspective, *Homo sapiens sapiens* is a very young 315,000-year-old species. The claim derived from the anthropic principle, shedding doubt on the independent existence of the material world and asserting reality to be predicated on the existence of observers [probably humans], is a fallacy. Dinosaurs reigned on planet Earth for millions of years before being extinct. Time is embedded in all forms of life, from virus replication to populations and ecosystems. It is both container and contained. Dr. David Leong's "The Chinese View on Time...." is interesting, entertaining, and thought-provoking. However, analogies between cultural times and features of quantum physics are so far fundamentally metaphorical.

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