

Quantum is the Science of Nidana

Forward

(As a foundational collection of thoughts for the correct propagation of Buddhist teachings from Shakyamunibuddha, and the lineage through China, Japan and the world, from East to West, from thousands of years past to today, human science represents the most rigorous system of determining truth. However, truth finds expression in subjective experience; and how this occurs is, in a very direct way, the foundational work of Buddhist teaching, Buddhist 'devices', 'expedients', and 'stories' designed and offered to minds of varied capacity. In this collection of scientific reference material, I annotate the document to demonstrate the vernacular of science and the every day, the experience of the physical analysis of our experience in this cosmos and juxtapose it directly to the vernacular of the Buddhist teachings.

To China we owe a great debt of gratitude for their own scholars and thinkers as well as their critical translations and institutionalizing of Buddhist teachings and practice. The Chinese philosophies such as Taoism show a great cultural affinity for the teachings of Shakyamuni, and the practices and observations of Buddhist thought. As will become evident in this transcript, the Taoist concepts meld quite well with Buddhist rhetoric and thought.

You will also notice will reading these words, several words that I have repeated throughout my books, my videos, and discussions in my own expedient means of propagating the Buddhist teachings just I will endeavor to do in this document.

All my annotations and interjections will be contained in parenthesis and italicized.

Bodhisattva, Sifu Sylvain Chamberlain)

Transcript with Annotations

In 1964, John Bell proved that two particles once connected remain permanently linked regardless of any distance between them.

25 centuries earlier, Lao-Tzu described a reality that Bell's theorem would eventually confirm in 81 chapters without once mentioning particles. The Taoists called it the nature of the Tao and they developed a practice for living in alignment with it. That quantum non-locality two and a half millennia later explains precisely why it works.

When Elaine Aspect published his experimental confirmation of Bell's theorem in 1982, after measuring entangled photons separated by 12 meters, changing the

measurement settings after the photons were already in flight, the physics community faced a conclusion they could not avoid.

The experimental evidence now points to a single conclusion. The universe at its most fundamental level is non-local. At the level at which particles exist before they become the objects we observe, there is no genuine separation between connected systems. Distance does not break the connection. Time does not break the connection. No physical barrier of any kind breaks the connection.

Once two quantum systems have interacted, they behave as a single system expressed in two locations. Einstein called this spooky action at a distance. He found it deeply disturbing. Lao-Tzu would have found it obvious. The Tao-Ching is not a spiritual self-help text. It is a precise philosophical investigation of the nature of the field underlying all observable phenomena.

Chapter 25 describes what quantum field theory calls the unified field. There was something formless and perfect before the universe was born. Serene, empty, solitary, unchanging, infinite, eternally present. It is the mother of the universe.

Chapter 34 describes what quantum non-locality confirms. The Tao flows everywhere to the left and to the right. All things depend upon it to exist. It does its work silently and makes no claim. Flows everywhere. All things depend upon it. No separation. This is not only metaphor. The Taoists were describing a property of reality that physics has since confirmed experimentally. But they arrived at it through a completely different door. And the Taoists built a complete practice around it. For living in alignment with a field that is non-locally connected in the way Bell's theorem proved, quantum non-locality has three properties that have no explanation in classical physics.

First instantaneous correlation. When you measure one particle of an entangled pair, the other particle adopts the corresponding state. Instantaneously, not after a signal travels, not after any delay at all, faster than light, which according to Einstein should be impossible.

Second, independence from distance. Aspect's experiment confirmed non-locality at 12 meters. Subsequent experiments have confirmed it at 1,200 km. The distance is irrelevant. The correlation is equally instantaneous at any separation.

Third, irreducibility. You cannot explain the correlation by saying each particle had a predetermined outcome, a hidden variable set at the moment of entanglement. Bell's theorem proves mathematically that hidden variable theories cannot reproduce the observed quantum correlations. The non-locality is not a gap in our knowledge. It is a feature of reality itself. Here is the bridge between the physics and the practice. If the universe is fundamentally non-local, if separation between connected systems is not a feature of the underlying reality, but an appearance that emerges at the scale of ordinary observation, then the Tao's description of universal interconnection is not a philosophical position. It is a description of the actual structure of the quantum field. And the Taoist practice of Wu-Wei acting in alignment with the Tao rather than against it is the practical application of living as a node in a non-locally connected field rather than as an isolated separate particle.

The physics confirms the practice. The practice embodies what the physics describes.

(This is an elegant description of quantum fluctuations as the process of formations captured in the Nidana also called the 12 linked causal chain. The Tao is focused on our human interaction with this “field” of formations to silence our mind grasping the process but rather surrender to it. This often leads to determinism or “fate”; Whereas Buddhism is about recognizing the process and its influence on our experience in order that we objectively observe the process without being personally attached or subservient to it. Where Taoism wants passive witnessing, Buddhism seeks mastery and calming appreciation of the cessation of perturbations resulting from the fluctuations to communicate with and ameliorate the process of experience to support liberation from Dukkha, stress, and identification etc... and the ultimate return to quiescence. Taoism seeks destiny and fate, Buddhism seeks active engagement and objective appreciation to influence and guide potentials toward joy and insight with indeterminate inertia enlightened quietude.)

Chapter 1 of the Tao-te-Ching begins with a statement that has puzzled western translators for two centuries. *The Tao that can be named is not the eternal Tao.* This is not mystical evasion. It is a precise statement about the relationship between the quantum field and the mathematical representations we use to describe it. Any equation describing the unified quantum field is a named version, a map, not the territory. The actual field precedes all representation. It cannot be captured in an equation because equations are phenomena arising within it. The eternal Tao, the actual field is prior to naming, prior to mathematics, prior to observation. String theory, M theory, loop quantum gravity, all named versions of the Tao, none of them, the Tao itself.

Chapter 4. The Tao is like a well-used but never used up. It is like the eternal void filled with infinite possibilities. Infinite possibilities. The quantum vacuum. The ground state of the unified field containing all potential states before observation collapses them.

(This is the Quiescent Energy Field from which all fluctuations begin, yes?)

Chapter 16. Return to the root is called stillness. This is called returning to one's destiny. Return to the source is stillness. This is the way of nature. Return to the source to the quantum vacuum to the state before the wave function collapses into definite phenomena. The Taoist practice of returning to stillness, returning to the root is the practice of accessing the field before it becomes the 10,000 named things. Niels Bohr, one of the three physicists most responsible for the development of quantum mechanics, spent years attempting to understand the philosophical implications of his own theory.

In 1947, when he was summoned by the Danish government and asked to design a code of arms, he chose the Taoist symbol of yin and yang. His motto *contraria sunt complimenta* opposites are complimentary. He was not making a casual cultural gesture. He recognized in the Taoist symbol a precise visual representation of the

principle he had spent his career developing. Wave and particle complimentary not contradictory. Just as yin and yang are complimentary expressions of the single Tao, the Taoists had mapped this territory 2,500 years before the physics arrived. Wu-Wei is the most misunderstood concept in Taoist philosophy. It is usually translated as non-action or non-doing. But this misses the precision of the original. Wu means without. Wei means action, but specifically the kind of forced ego-driven self-referential action that comes from believing oneself to be separate from the Tao. Wu-Wei is not in action. It is action that arises from the field itself rather than from the contracted self that believes it is isolated from the non-local field in which it is embedded.

Chapter 48. In pursuit of learning, something is acquired every day. In pursuit of the Tao, something is dropped every day. Less and less is done until non-action is achieved. When nothing is done, nothing is left undone. When the contracted ego drops its grip, action still occurs, but it occurs as the expression of the field, not as the forcing of an isolated particle against the grain of the non-local reality in which it is embedded. Here is the quantum description of what Wu-Wei produces. A contracted ego self-believing itself separate acts from the assumption of isolation. It generates actions that create resistance. Consequences that arise from acting against the nature of the non-local field.

The Tao-te-Ching describes the result of this. Those who go against it fail. Those who attach to it also lose. Both forcing and grasping two forms of acting from the contracted particle rather than the field. Wu-Wei action from the field is the recognition that you are not a separate particle generating consequences in isolation. You are a node in a non-locally connected field. Your actions propagate through that field. Not despite the field but as the field expressing itself. When the separation dissolves, action becomes effortless. Not because less happens, but because nothing is working against the grain of the underlying reality. Before the convergence, a brief observation right now. Notice any sense of effort in this moment. Any sense of pushing against something, anything that feels like resistance.

That sense of resistance, the Tao-Ching says, is always the feeling of a contracted self acting against a non-local field. It believes it is separate from what would action feel like from within the field rather than against it.

Let us map the *quantum physics* and the *Taoist tradition* side by side. The field quantum field theory unified field omnipresent source of all phenomena Tao-te-Ching the eternal Tao unnamed origin mother of the universe same description non-locality bell's theorem connected systems remain a single system regardless of distance Tao-te-Ching chapter 34 the Tao flows everywhere all things depend on it to exist Same property. The vacuum. Quantum vacuum. Infinite potential. All possible states before observation. Tao-te-Ching.

Chapter 4. Eternal void filled with infinite possibilities. Same description. The practice quantum mechanics. The observer participates in what the field becomes. Wu-Wei act as the field not as an isolated particle. Same instruction. The result quantum non-local correlation the separated particle is never truly separate. Wu-

Wei effortless action. The separated self was never truly separate. Same recognition. The Taoists were not alone. The Vedic tradition called this practice Nishkama karma. The Hermetics called it the great work. Three vocabularies, a convergent instruction. But the Taoists gave it its most precise name, Wu-Wei. Action from the field, not from the particle that forgot it was feel. Modern neuroscience has identified the brain network responsible for the contracted ego self. The default mode network, a set of brain regions that activate during self-referential thought, the narrative of I as a separate isolated entity moving through time. Neuroscience research has found repeated evidence that advanced practitioners of contemplative traditions, including lineages closely related to Taoist and Vedic inquiry, show measurably reduced default mode network activity compared to the non-meditators. The neural signature of what Wu describes, the quieting of the contracted self-referential loop is measurable.

(It must be obvious by now the tremendous similarity of thought in the Chinese system of thought and the teachings of Shakyamuni Buddha. Certainly by adding the modern science rhetoric of the Quantum Science it is obvious too that, although the goal of Taoists versus Quantum Physicists, and Buddhist differ in striking ways, the insights and shared observations lend a depth of evidence for a strong level of confidence in our understanding of the Engine of Life and the workings of our universes.)

When the DMN quiets, the reported experience is precisely what the Tao-té-Ching describes. Action without effort, awareness without contraction, the sense of operating from within the field rather than against it. Here is what quantum non-locality and the Tao-te-Ching are both pointing at precisely. You are not a separate particle generating consequences in isolation. You are a node in a non-locally connected field. A field in which every action propagates not through visible mechanisms but through the underlying non-local structure of the quantum reality you are embedded in. The Tao-te-Ching says the Tao does not act yet nothing is left undone. not passivity. The recognition that the field is always acting, that the action you have been attributing to a separate self was always the field expressing itself.

When that recognition settles, the effort stops, not because you do less, but because you stop working against the non-local field you were never separate from. Long pause. A short practice from the Taoist tradition. Not a breathing exercise, not a visualization, simply a noticing. Let the eyes close. Let the body settle. Notice whatever is arising right now. Sensation, sound, the feeling of the body resting. Now notice is there any effort in the noticing the noticing itself is it doing anything or is it simply already happening?

The Tao-te-Ching says to the mind that is still, the whole universe surrenders. This stillness already present is not something you achieve. It is what was always there beneath the effort of the contracted self. The Tao, the field non-locally connected to everything already here.

(And in this final statement I hear reference to an analog to the Tathagata field...)