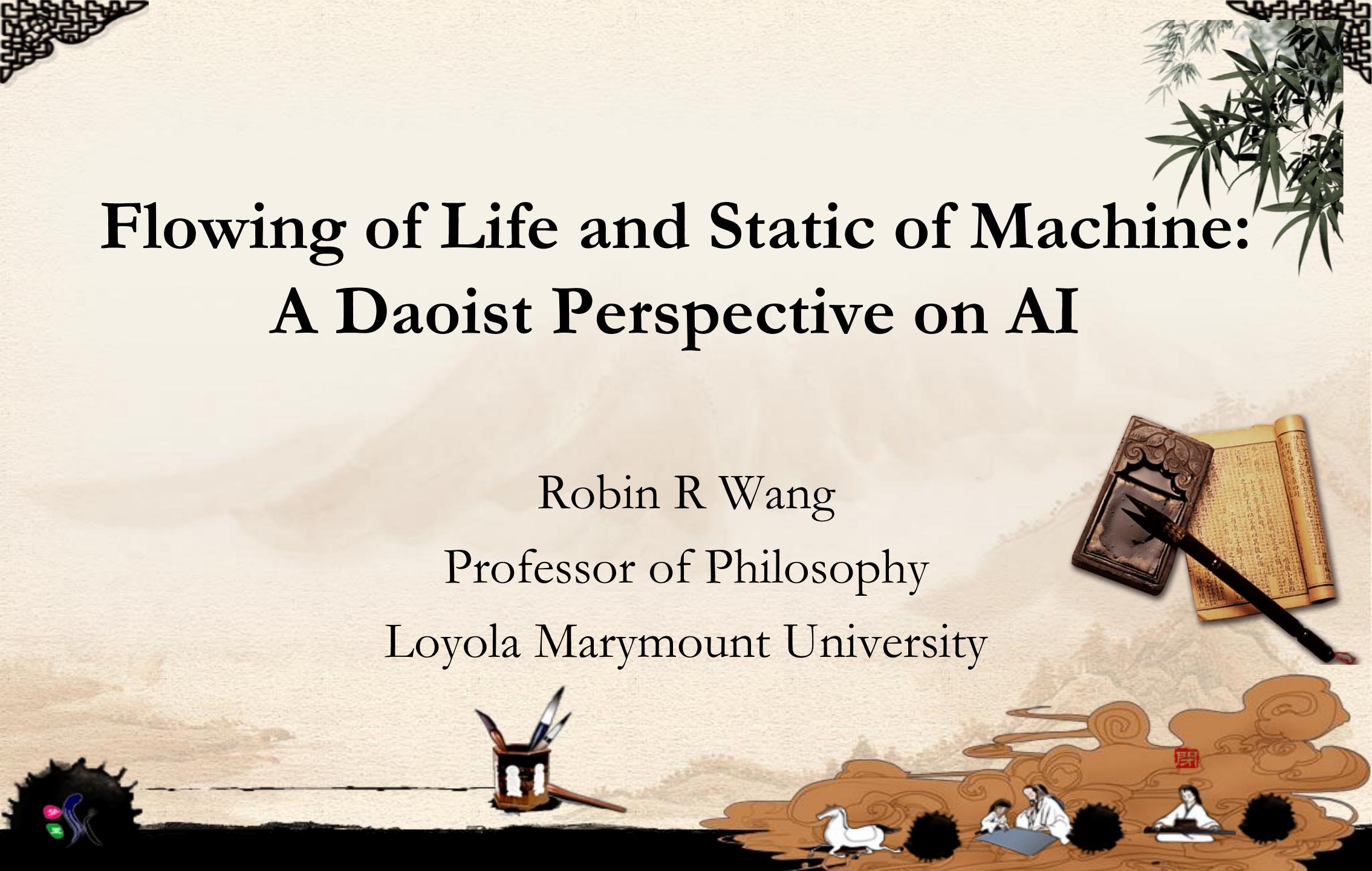


# Flowing of Life and Static of Machine: A Daoist Perspective on AI

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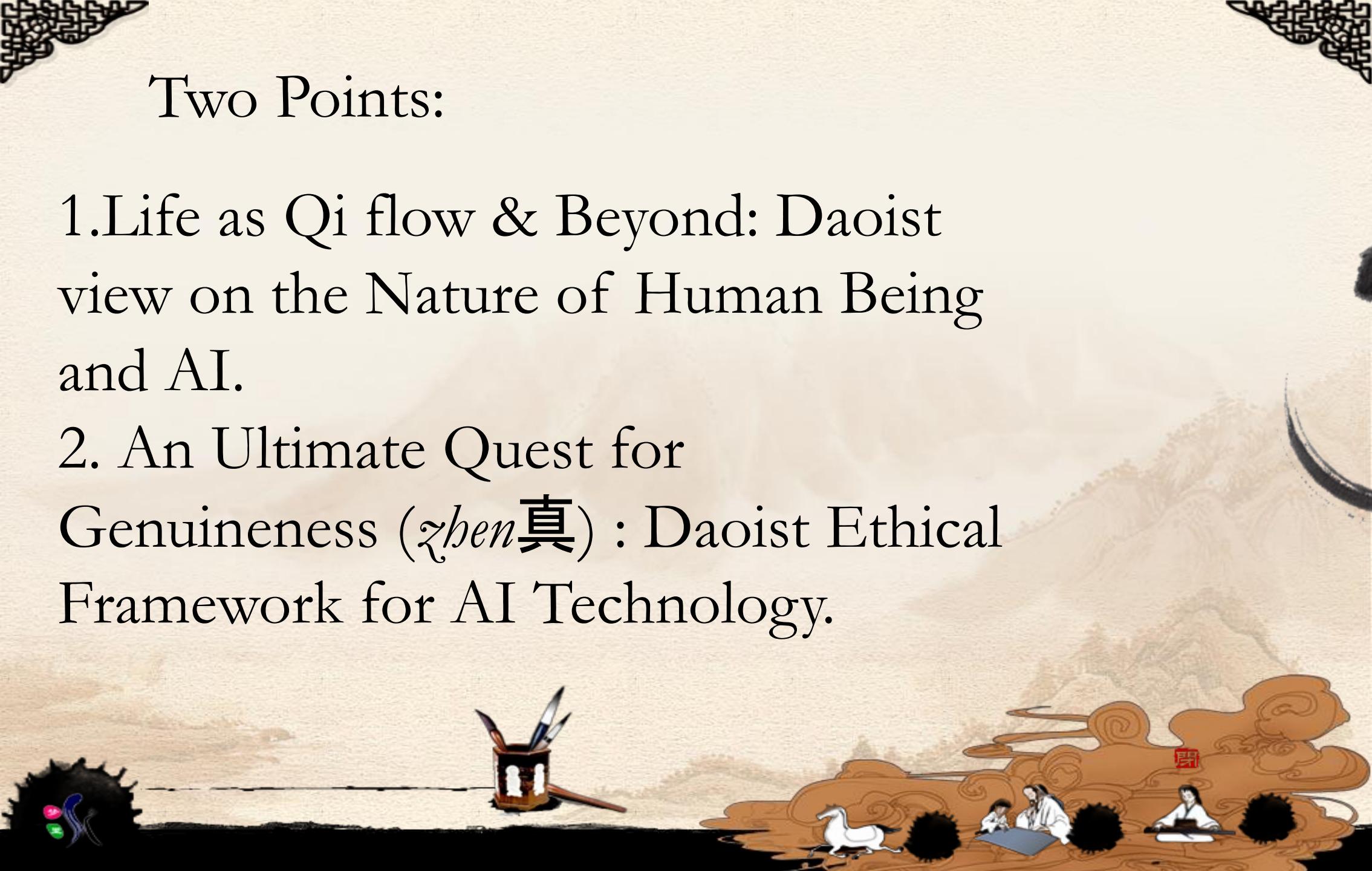
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- AI Technology challenges what it means for humans to be humans; what our moral society means, and how our societal values are shifting? Our values, society, and laws are centered around humans, and under the current revolution of AI technology, we must ask what impacts it would have on each of these aspects?

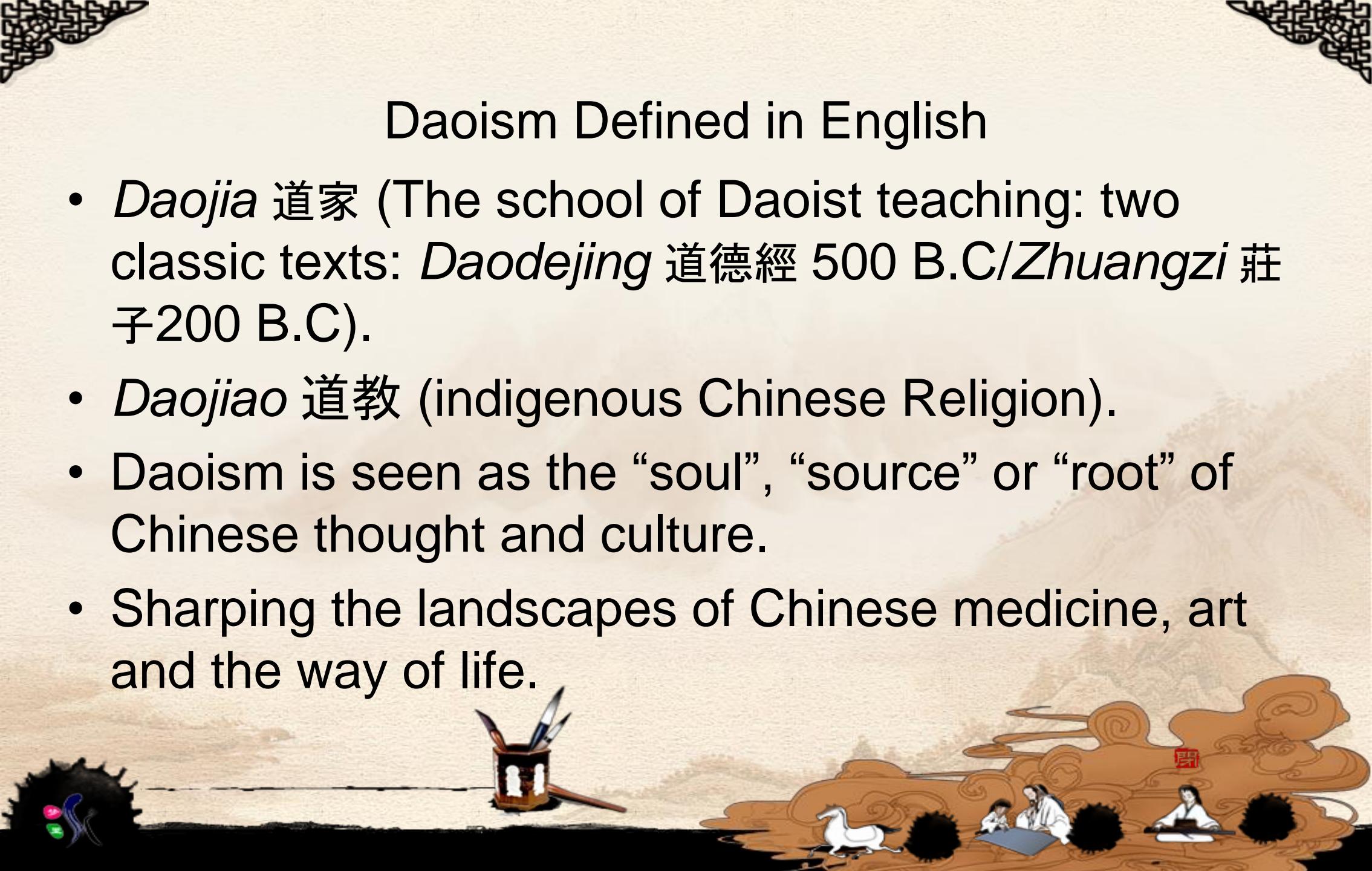
## Two Points:

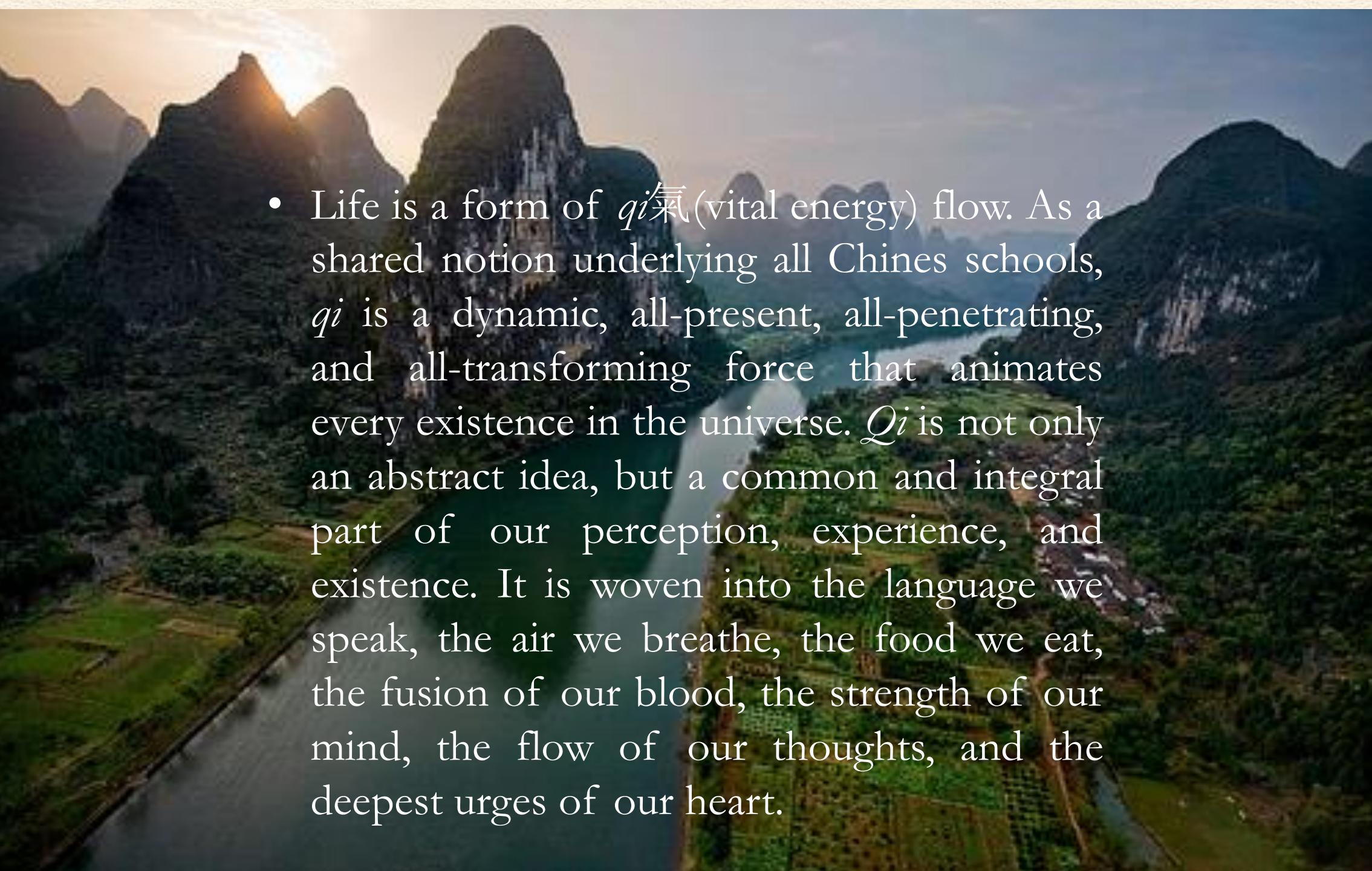
1. Life as Qi flow & Beyond: Daoist view on the Nature of Human Being and AI.
2. An Ultimate Quest for Genuineness (*zhen* 真) : Daoist Ethical Framework for AI Technology.



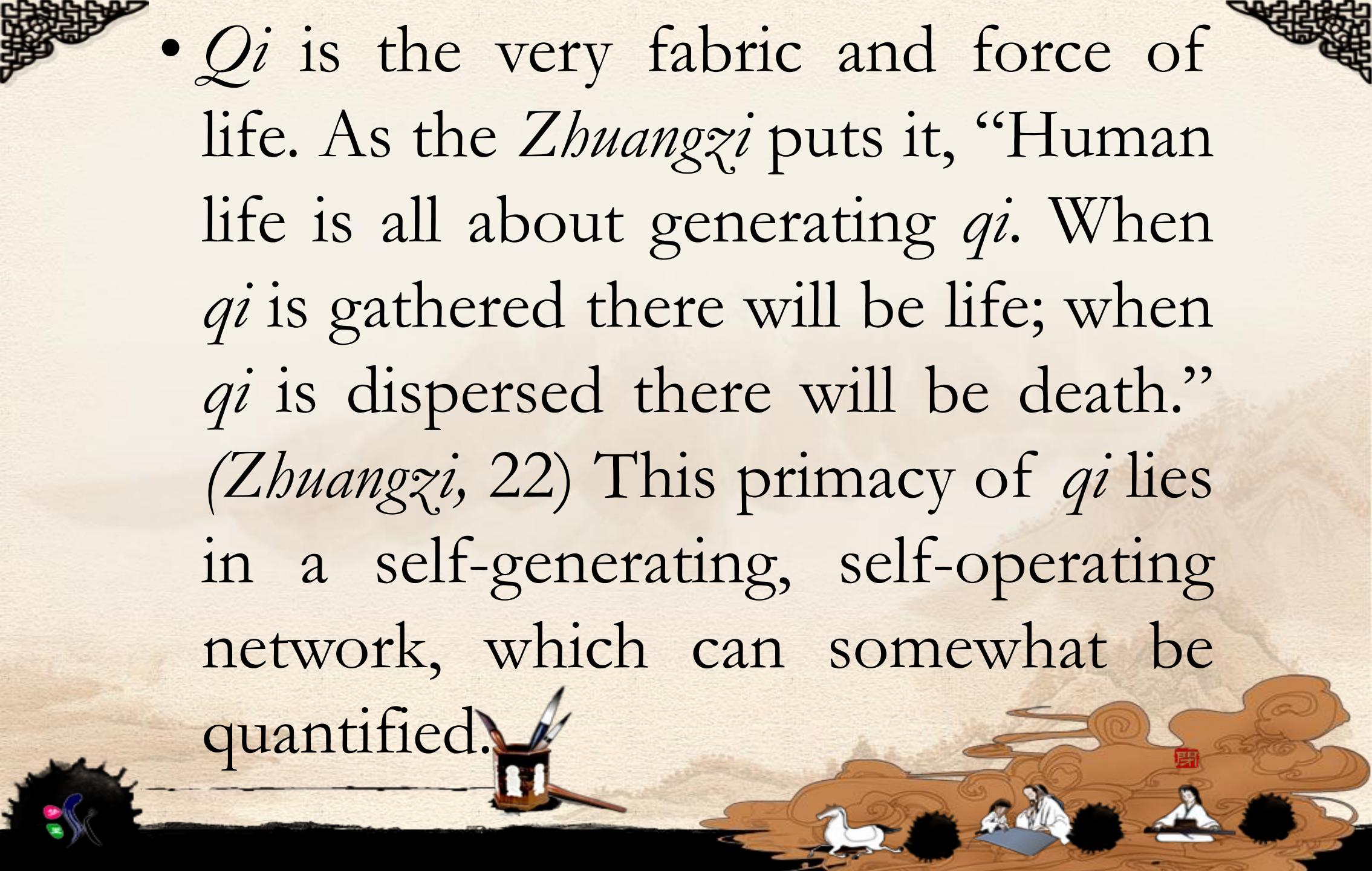
# Daoism Defined in English

- *Daojia* 道家 (The school of Daoist teaching: two classic texts: *Daodejing* 道德經 500 B.C/*Zhuangzi* 莊子 200 B.C).
- *Daojiao* 道教 (indigenous Chinese Religion).
- Daoism is seen as the “soul”, “source” or “root” of Chinese thought and culture.
- Shaping the landscapes of Chinese medicine, art and the way of life.



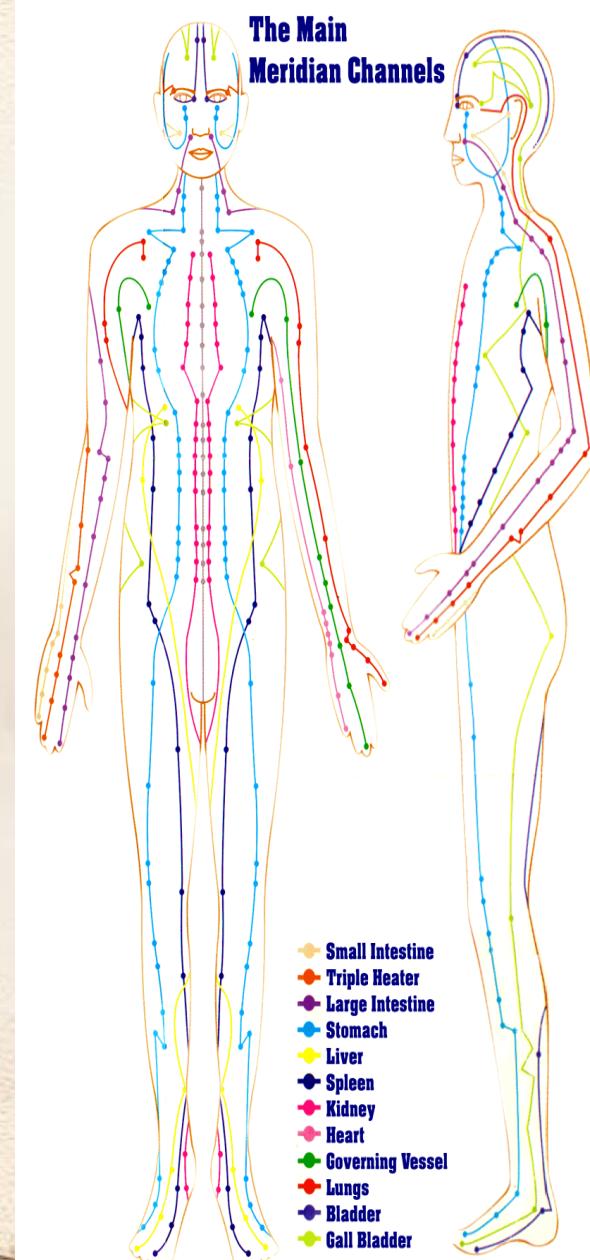
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- A scenic landscape featuring misty, conical mountains under a hazy sky. A paved road winds its way through a lush green valley. In the foreground, there's a small, simple structure, possibly a shrine or a gate.
- Life is a form of *qi* 氣 (vital energy) flow. As a shared notion underlying all Chinese schools, *qi* is a dynamic, all-present, all-penetrating, and all-transforming force that animates every existence in the universe. *Qi* is not only an abstract idea, but a common and integral part of our perception, experience, and existence. It is woven into the language we speak, the air we breathe, the food we eat, the fusion of our blood, the strength of our mind, the flow of our thoughts, and the deepest urges of our heart.

- *Qi* is the very fabric and force of life. As the *Zhuangzi* puts it, “Human life is all about generating *qi*. When *qi* is gathered there will be life; when *qi* is dispersed there will be death.” (*Zhuangzi*, 22) This primacy of *qi* lies in a self-generating, self-operating network, which can somewhat be quantified.

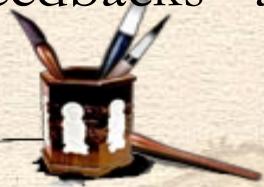


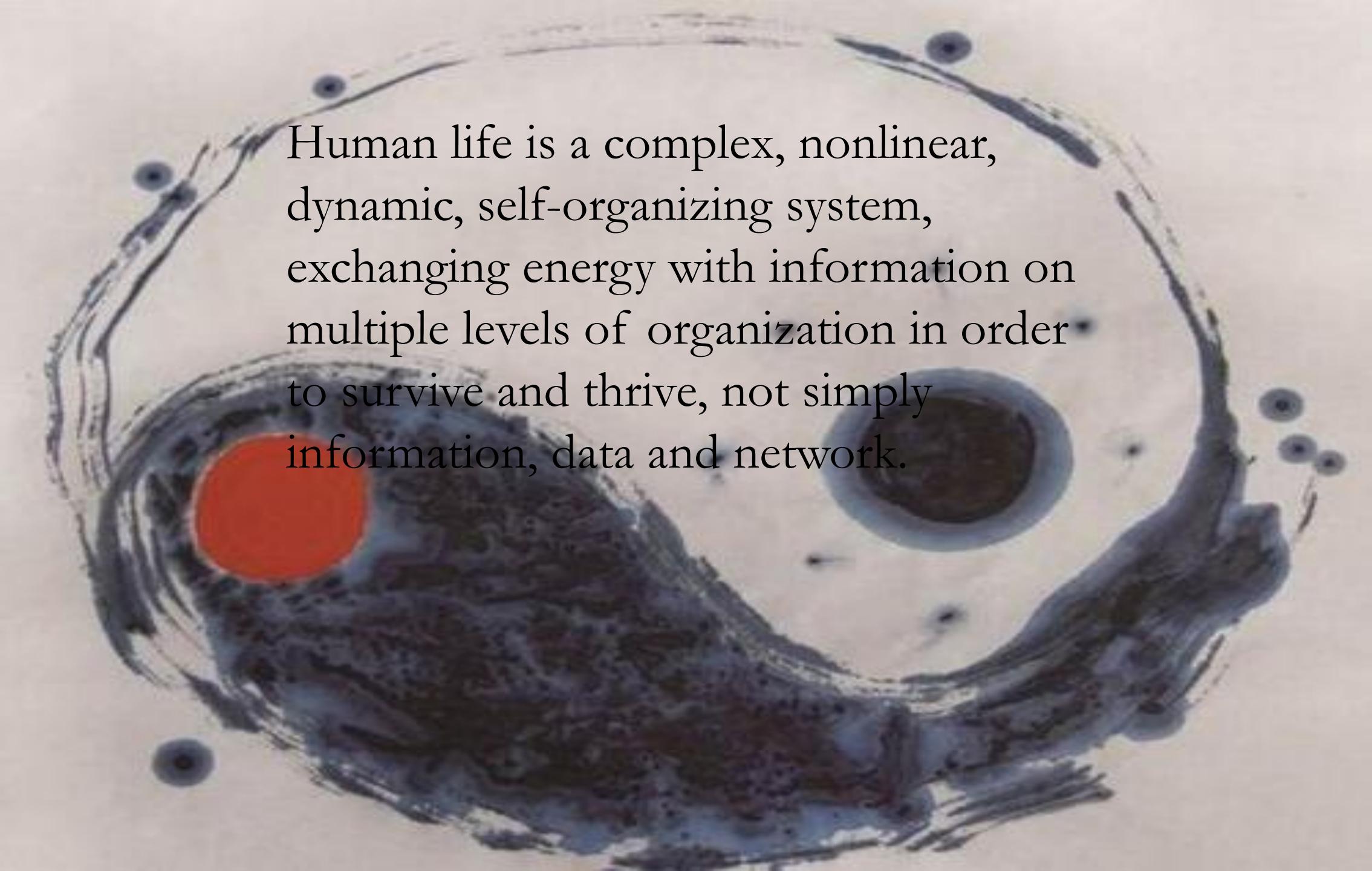
Daoist practitioners are like *qi* engineers, capable of taking a variety of *qi* flows into a directed system and configuring the 12 *qi* flow channels, namely *jingluo* 经络 in the human body and cosmos.

(*Zhuangzi*, 3)



Arguably, computational algorithms can be seen as exhibiting a form of *qi*-flow. Consider a computer algorithm, an organizing and arranging of data, which is a means of turning inputs into outputs. More interestingly, cognitive psychology images the human brain as a machine, from which complex behaviors arise or as the aggregate result of multiple simple responses. Similarly, Daoists conceptualize the human brain itself as a *qi*-flow network, from which complex behaviors arise as the aggregate result of multiple *qi* responses. (*Zhuangzi*, 2) AI, or the machine, might be able to flow like Dao only because it can be self-regulating in a feedback loop, fulfilling a basic requirement for a Daoist action, sensing feedbacks as a way of optimizing performances.



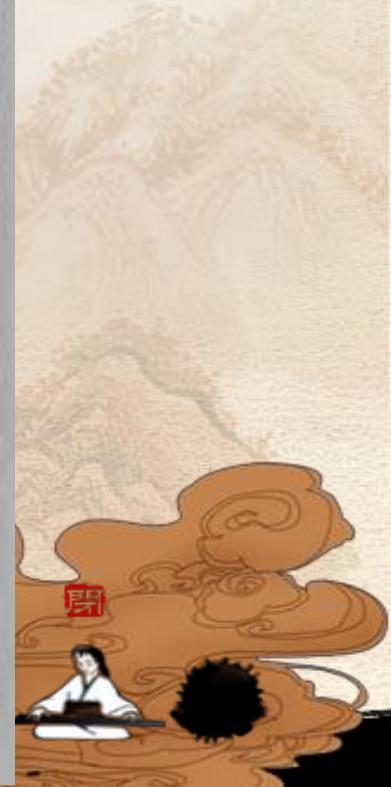
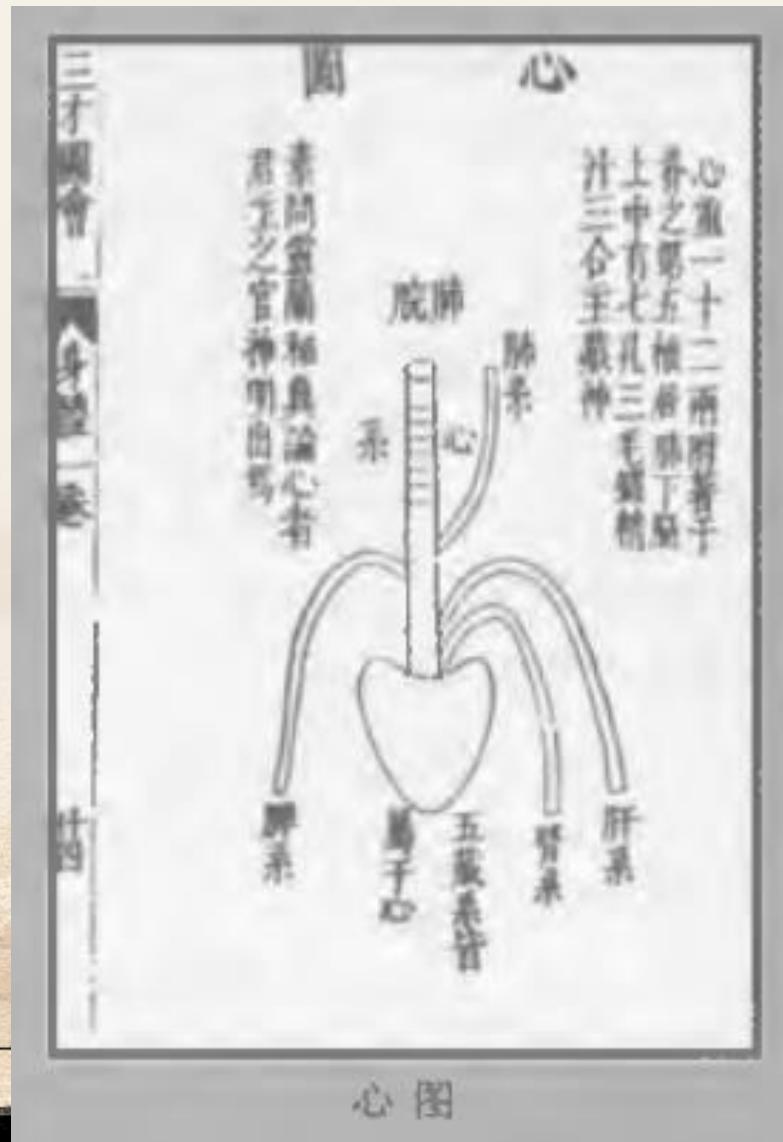
A detailed microscopic photograph of a cell. The cell is roughly circular with a textured, granular appearance. A prominent feature is a large, solid red circle located near the bottom left, representing the nucleus. The surrounding cytoplasm is a mottled blue-grey color. Several smaller, dark blue circular structures, possibly organelles or vesicles, are scattered throughout the field of view.

Human life is a complex, nonlinear,  
dynamic, self-organizing system,  
exchanging energy with information on  
multiple levels of organization in order  
to survive and thrive, not simply  
information, data and network.

Human body (*shen* 身) has three elements: physical form (*xing* 形), *qi* (vital energy), and spirit (*shen* 神). *Xing* refers to shape or form – the physical, visible form of the body, the house or abode of life and a vessel for the Dao; *Qi* is the invisible foundation and the source of life. Spirit (*shen*) is the “true ruler,” which regulates psychological and spiritual aspects of human life.

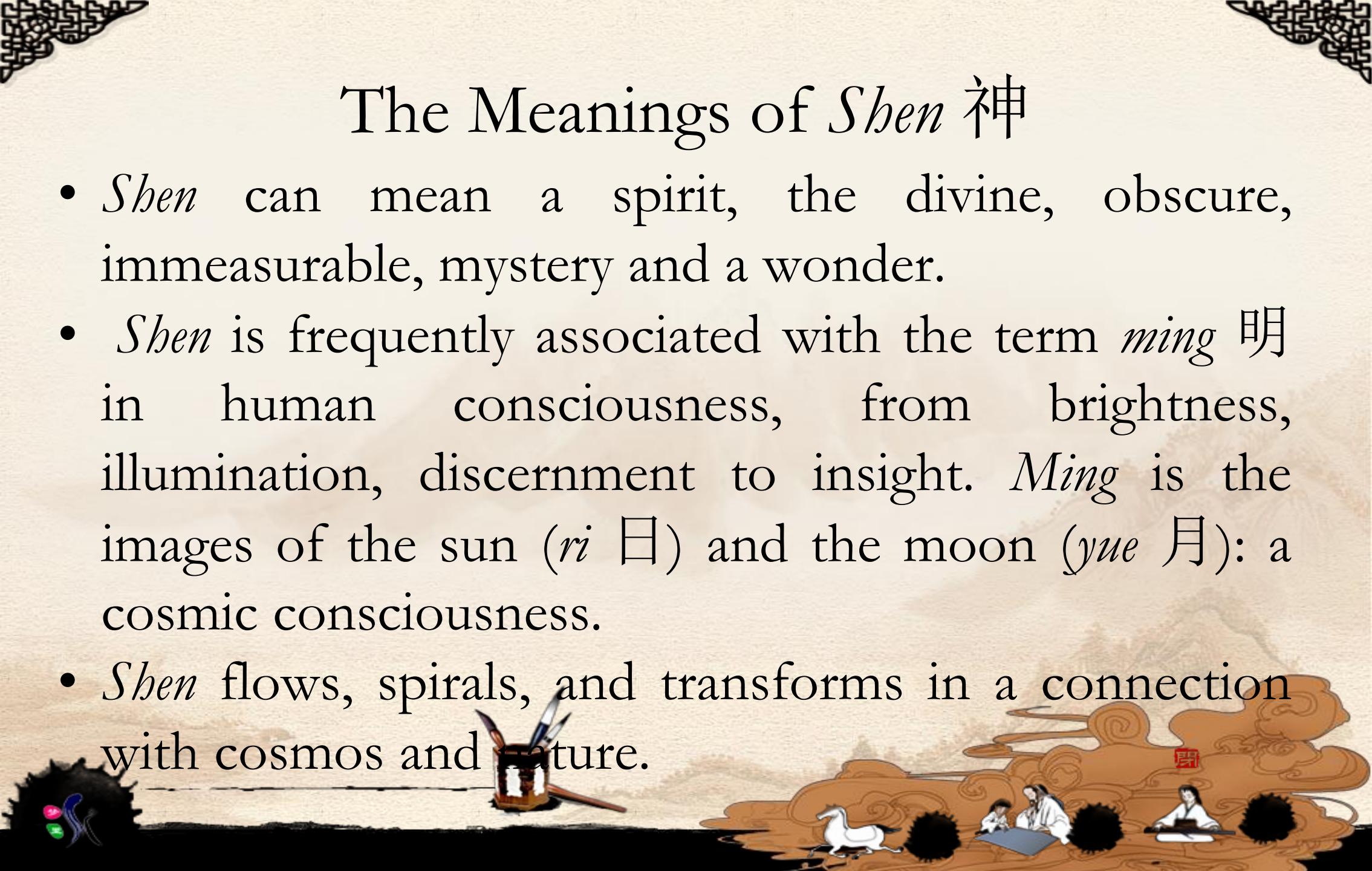


# Physical (*Xin*心) & Spiritual (*Shen*神) Heart (*Huangtingjing*), classical text in 200 AD.)



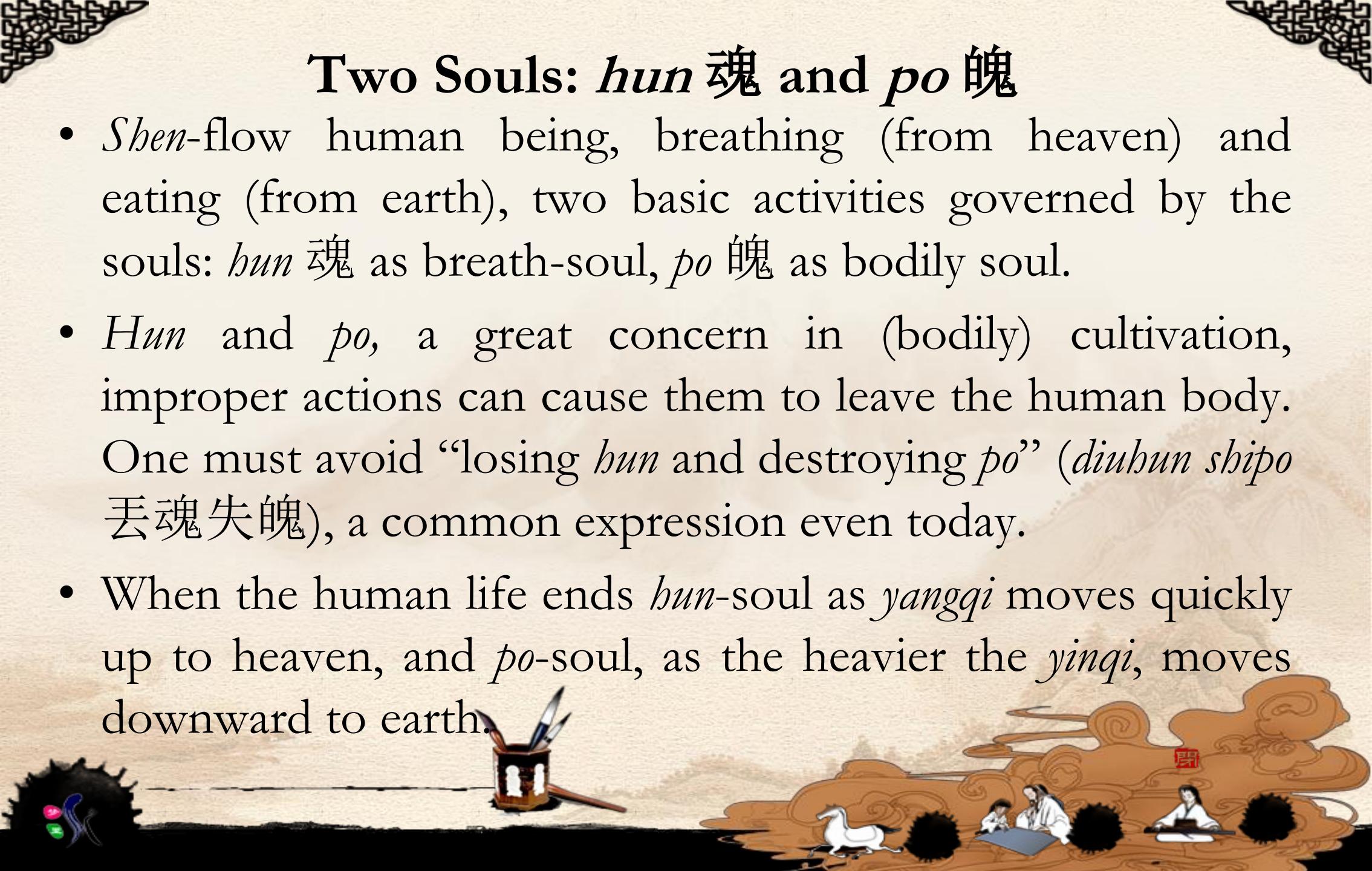
# The Meanings of *Shen* 神

- *Shen* can mean a spirit, the divine, obscure, immeasurable, mystery and a wonder.
- *Shen* is frequently associated with the term *ming* 明 in human consciousness, from brightness, illumination, discernment to insight. *Ming* is the images of the sun (*ri* 日) and the moon (*yue* 月): a cosmic consciousness.
- *Shen* flows, spirals, and transforms in a connection with cosmos and nature.



# Two Souls: *hun* 魂 and *po* 魄

- *Shen*-flow human being, breathing (from heaven) and eating (from earth), two basic activities governed by the souls: *hun* 魂 as breath-soul, *po* 魄 as bodily soul.
- *Hun* and *po*, a great concern in (bodily) cultivation, improper actions can cause them to leave the human body. One must avoid “losing *hun* and destroying *po*” (*diuhun shipo* 丢魂失魄), a common expression even today.
- When the human life ends *hun*-soul as *yangqi* moves quickly up to heaven, and *po*-soul, as the heavier the *yinqi*, moves downward to earth.



# Can we upload *shen* in a machine?

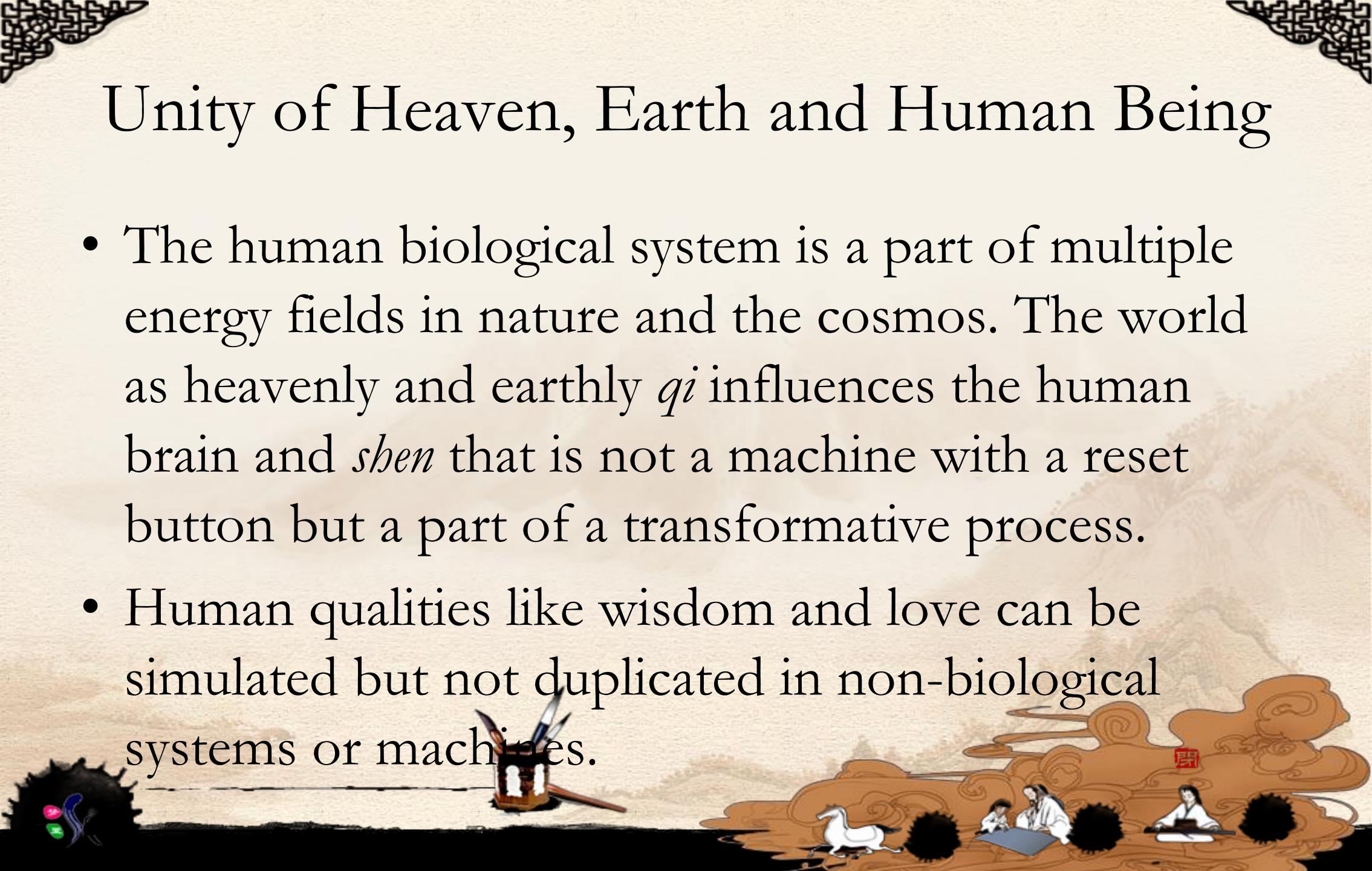


*Shen* is not an object, a computation, an algorithm, a piece of software, or a program, but rather something embedded in bodily transformations, social interactions and cosmic alignment.



# Unity of Heaven, Earth and Human Being

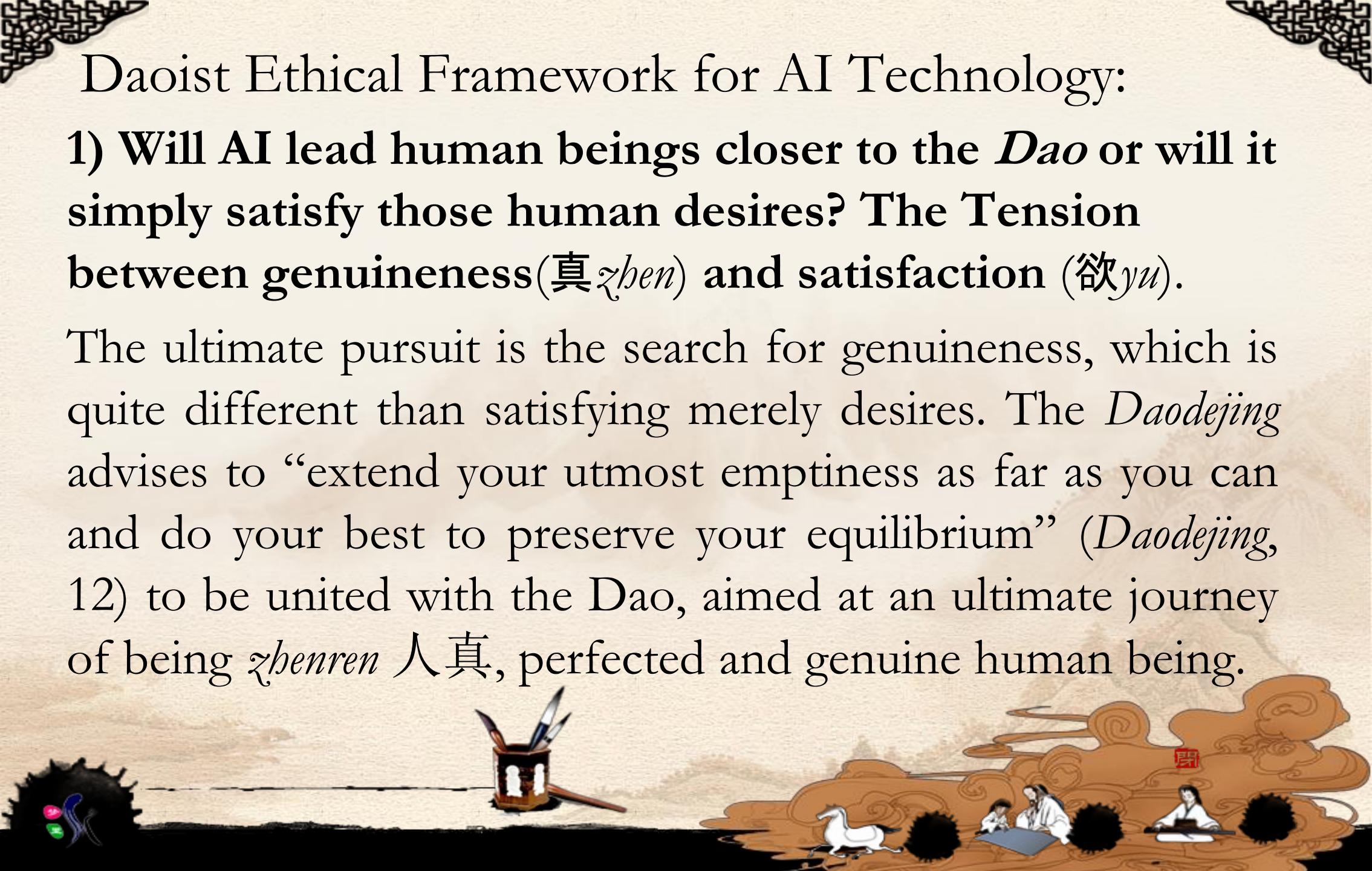
- The human biological system is a part of multiple energy fields in nature and the cosmos. The world as heavenly and earthly *qi* influences the human brain and *shen* that is not a machine with a reset button but a part of a transformative process.
- Human qualities like wisdom and love can be simulated but not duplicated in non-biological systems or machines.



# Daoist Ethical Framework for AI Technology:

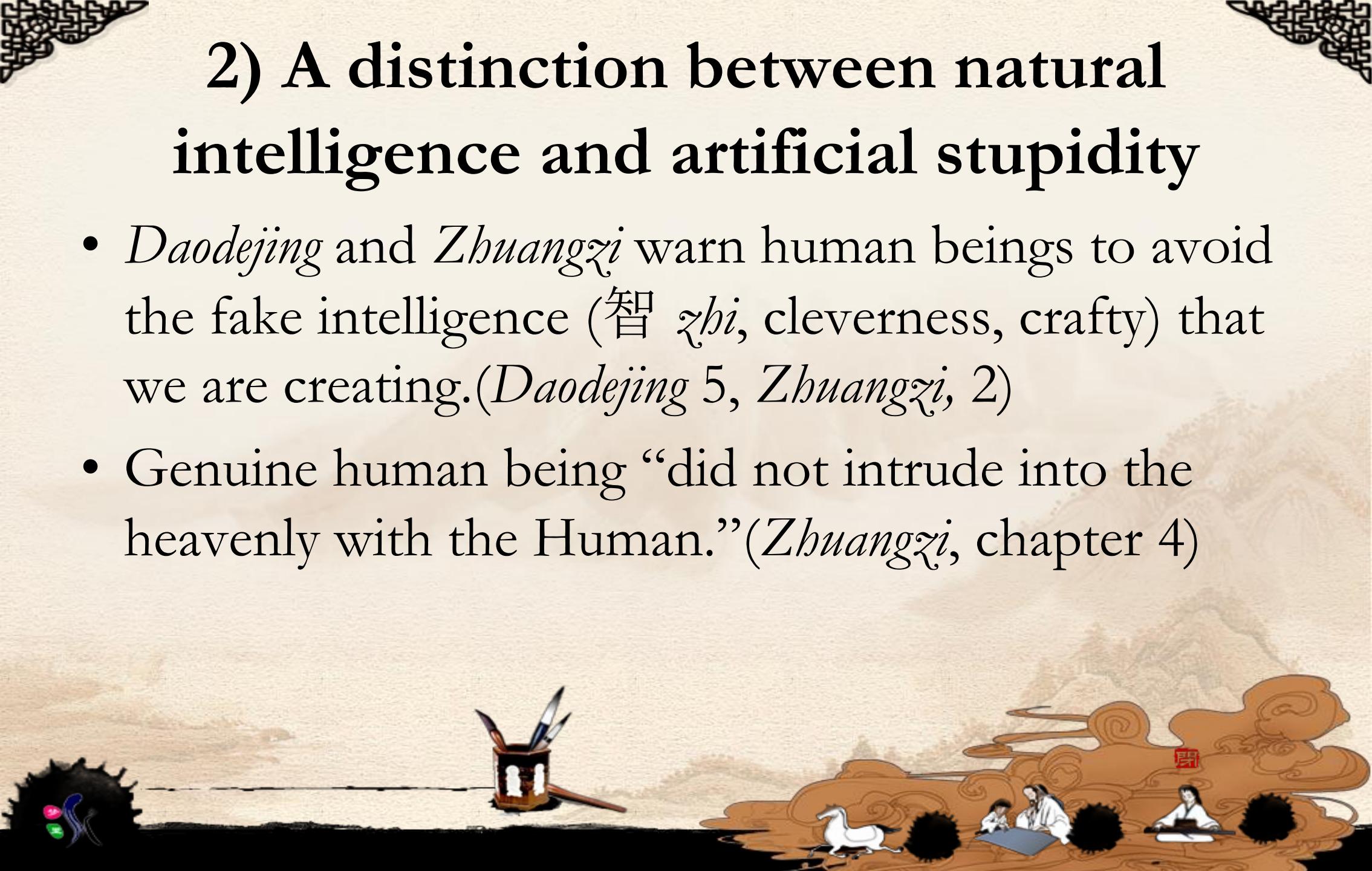
1) Will AI lead human beings closer to the *Dao* or will it simply satisfy those human desires? The Tension between genuineness (真 *zhen*) and satisfaction (欲 *yu*).

The ultimate pursuit is the search for genuineness, which is quite different than satisfying merely desires. The *Daodejing* advises to “extend your utmost emptiness as far as you can and do your best to preserve your equilibrium” (*Daodejing*, 12) to be united with the Dao, aimed at an ultimate journey of being *zhenren* 人真, perfected and genuine human being.



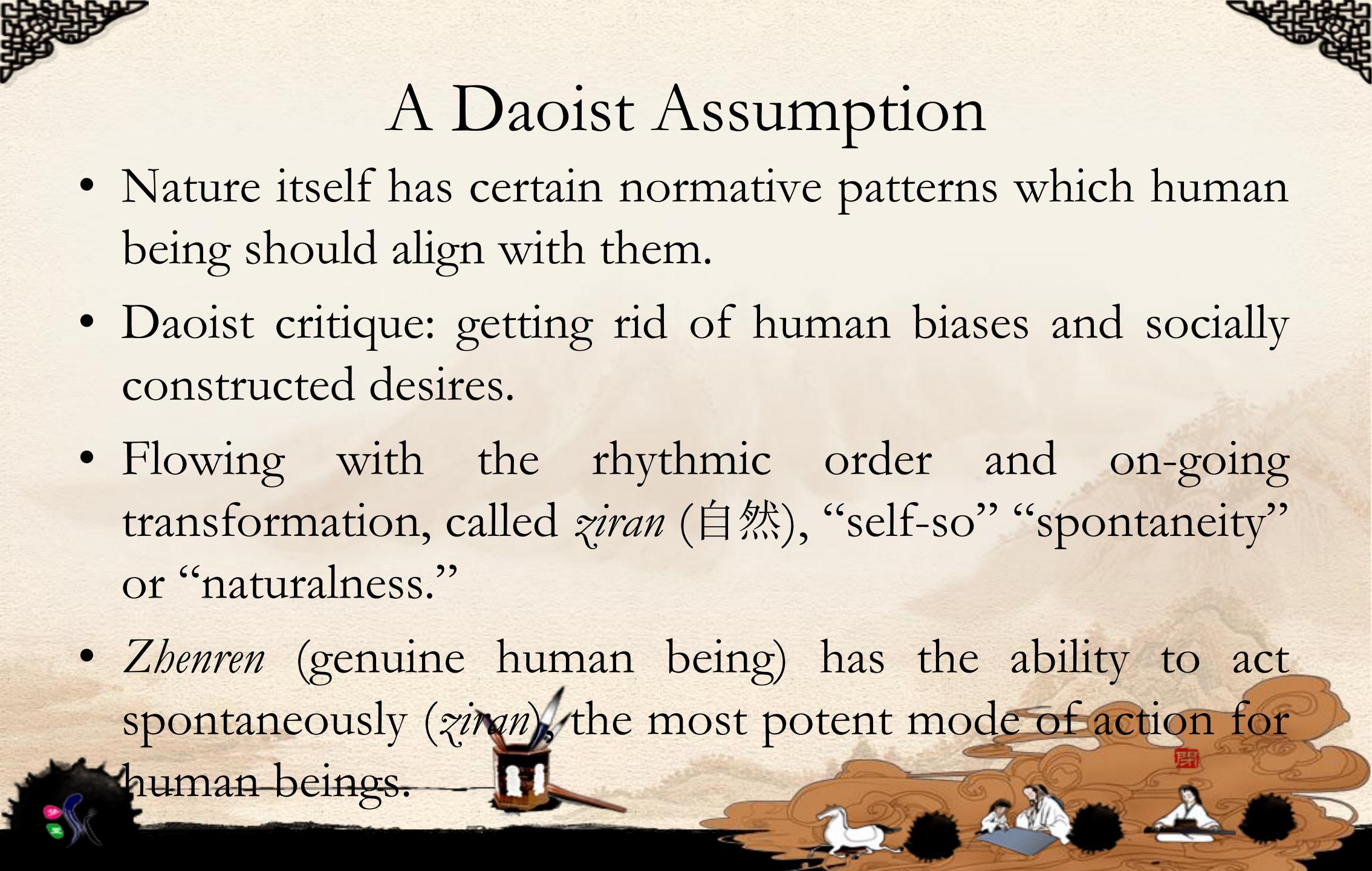
## 2) A distinction between natural intelligence and artificial stupidity

- *Daodejing* and *Zhuangzi* warn human beings to avoid the fake intelligence (智 *zhi*, cleverness, crafty) that we are creating. (*Daodejing* 5, *Zhuangzi*, 2)
- Genuine human being “did not intrude into the heavenly with the Human.” (*Zhuangzi*, chapter 4)



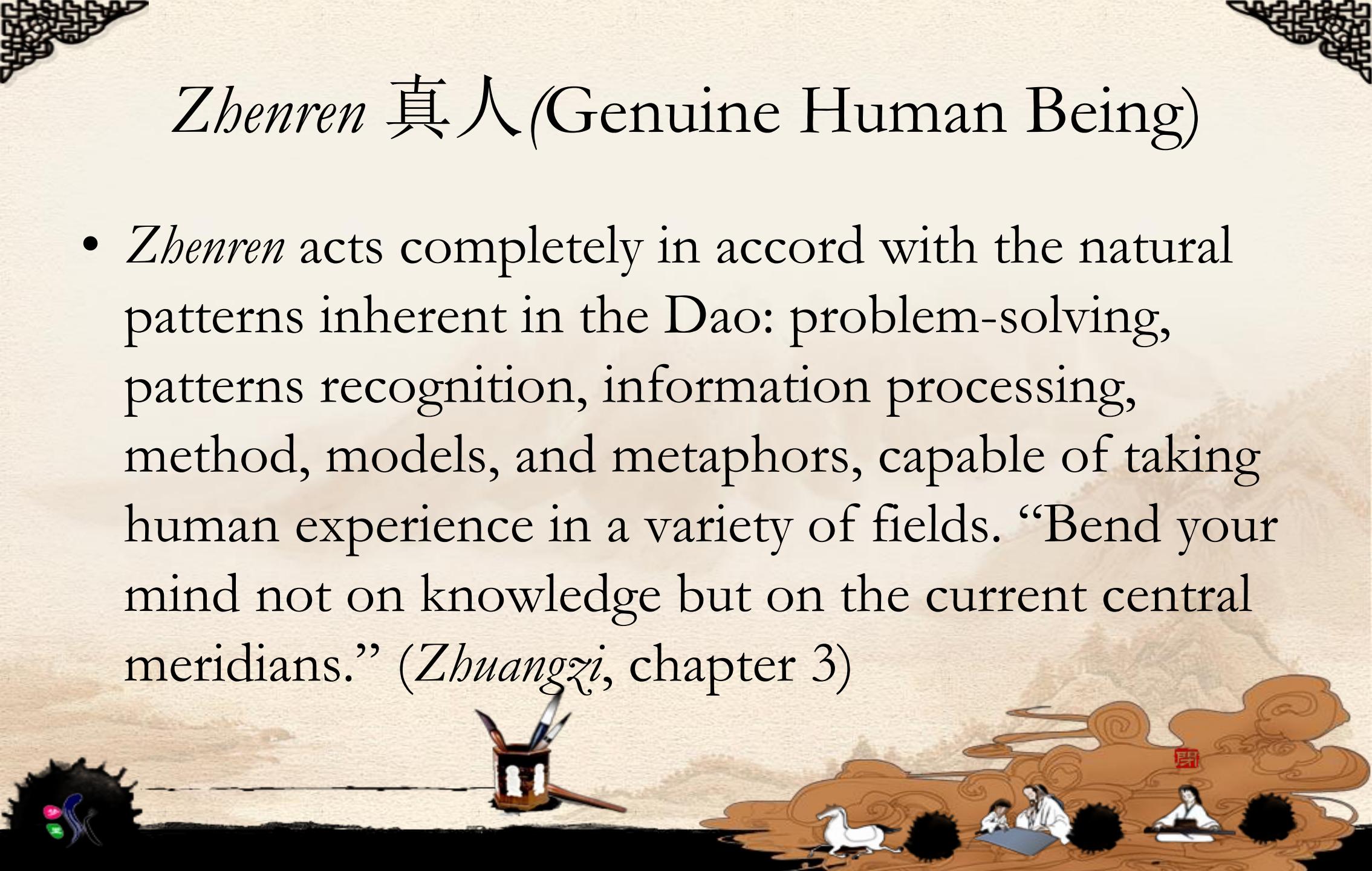
# A Daoist Assumption

- Nature itself has certain normative patterns which human being should align with them.
- Daoist critique: getting rid of human biases and socially constructed desires.
- Flowing with the rhythmic order and on-going transformation, called *ziran* (自然), “self-so” “spontaneity” or “naturalness.”
- *Zhenren* (genuine human being) has the ability to act spontaneously (*ziran*), the most potent mode of action for human beings.



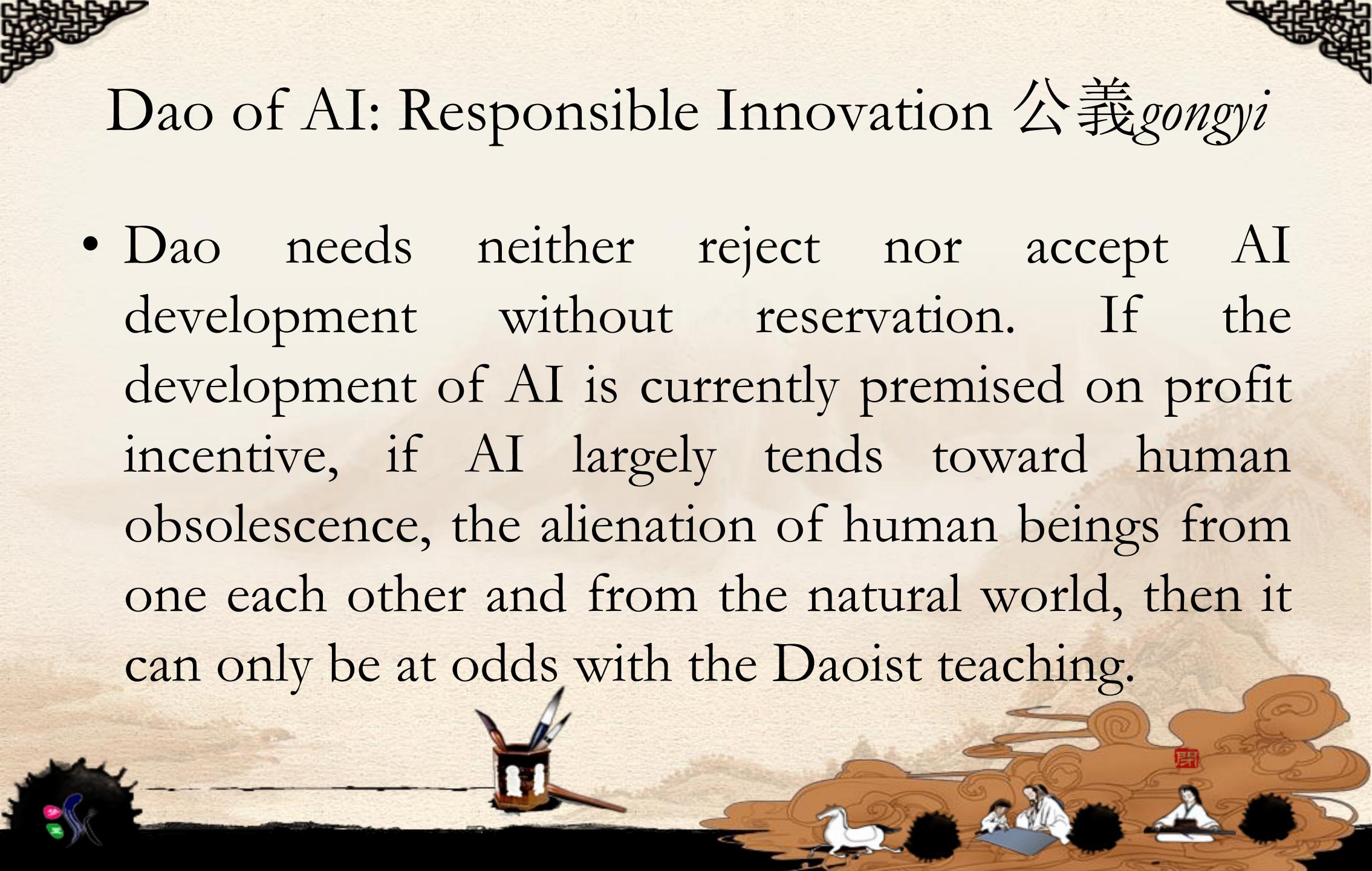
# *Zhenren* 真人(Genuine Human Being)

- *Zhenren* acts completely in accord with the natural patterns inherent in the Dao: problem-solving, patterns recognition, information processing, method, models, and metaphors, capable of taking human experience in a variety of fields. “Bend your mind not on knowledge but on the current central meridians.” (*Zhuangzi*, chapter 3)



# Dao of AI: Responsible Innovation 公義gongyi

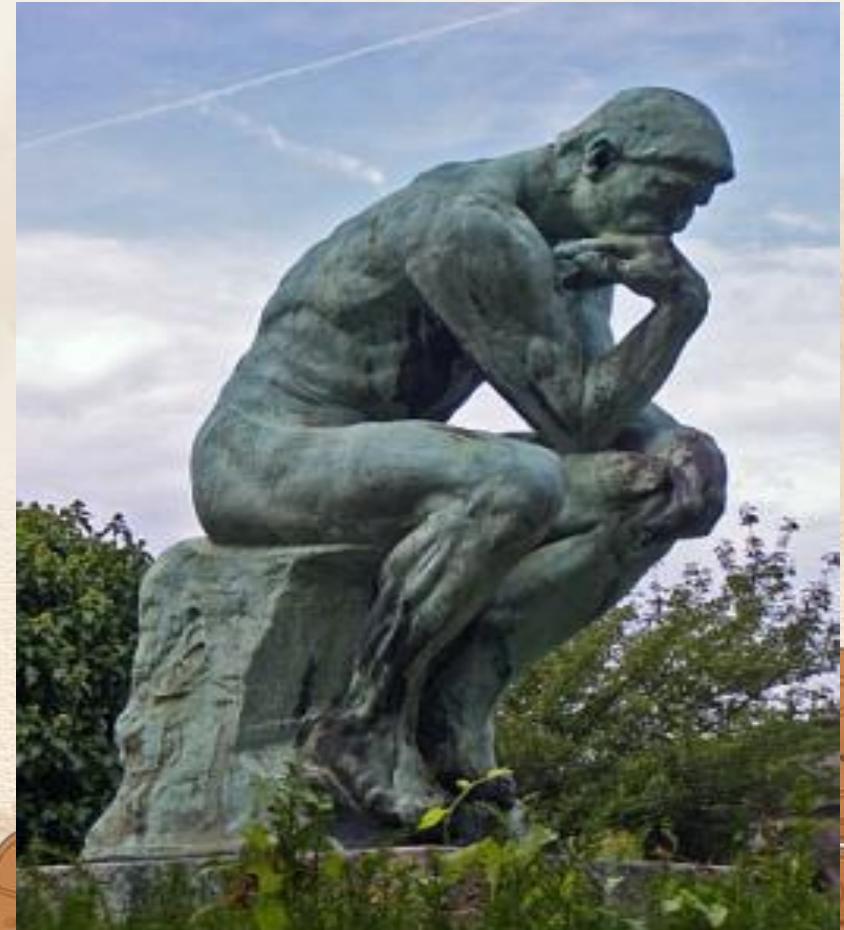
- Dao needs neither reject nor accept AI development without reservation. If the development of AI is currently premised on profit incentive, if AI largely tends toward human obsolescence, the alienation of human beings from one each other and from the natural world, then it can only be at odds with the Daoist teaching.



# How to live in the AI world?

Walking on the Way/*? or /and*

Contemplation



# Work sited:

- *Daodejing*, translated with illuminating explanation by Hans-Georg Moeller, (Open Court, 2007).
- *Zhuangzi: The Essential Writings with Selections from Traditional Commentaries*, translated by Brook Ziporyn, Indianapolis/Cambridge: Hackett Publishing Company, Inc., 2009.

