

POETRY



Confucius meets Laozi, Shi Gang (史枉), 14thc., Source: Wikipedia.org

TAO OF ENDOBIOGENY

Kamyar M. Hedayat, MD

“Science is for those who learn; poetry is for those who know.”¹—Father Joseph Roux, 1886

Introduction

I first read the *Tao te Ching* as a teenager, returning periodically to it throughout my life. In 2018, near completion of our four-volume textbook, I noticed that the wisdom of the great Chinese sage Lao Tzu was similar to systems theory and Endobiogeny. I was inspired to re-write each analect from the perspective of Endobiogeny. Some might find this non-linear approach valuable in addition to the logical, linear approach of the textbook. These poems are from the forthcoming *Tao of Endobiogeny*. The first three analects are based on the translation/interpretation by Derek Lin.² All poems © 2024 KM. Hedayat, MD

1: Beginning of all knowing

The life that can be quantified is not Life
The system measured is not the living system
The nameless is the origin of all Life
The named is the manager of terrain

Those bound to reductionism
Observe not the signs of the manager
Those who see not the signs
Follow not cause but effect

Those free of reductionism
Observe the signs of the manager

Those who see its signs
Follow its rhythm
So begins all knowing

畢

Commentary:

The life that can be quantified is not Life

Life is a ceaseless, dynamic movement of millions of elements in permanent adaptation. It exists in an endless stream of moments that never repeat. The ancient Greek philosopher Heraclitus stated, "You can never step into the same river twice." Life in all its totality cannot be quantified.

The system measured is not the living system

True, certain elements of a biological organism can be measured: the speed of an enzymatic reaction, cardiac output, renal filtration, etc. But this is not life. These are *parts* of life. To paraphrase Chilton Pierce in *A crack in the cosmic egg*: you may understand a bird's wing structure by killing and studying it. However, you will know nothing about how the bird flies. Flying is more than flapping wings. It requires intent, coordination, compensation of wind, humidity, gravity, etc. Life is experiential.

If we can possibly understand some sense of reality and truth, it must be qualitative, not quantitative. Life is in the relationships. What does far mean if there is no sense of close? How far? Far relative to what? The qualitative approach evaluates capabilities of one unit of function relative to another. What does cardiac contractility mean without understanding systemic vascular resistance? What does the rate of glycogenolysis mean unless we understand the body's requirement for ATP production? The requirement is quite different when exercising vs. sleeping.

Endobiogeny has developed a biomarker analysis software called GEMMA: Global Endobiogeny Mathematical Modeling Assessment. It's a qualitative evaluation of biomarkers, representing stimulating or inhibiting aspects of the manager of the terrain. Through pattern analysis, [GEMMA](#) offers powerful and predictive insight modeling dynamic functioning of the terrain. It allows for a personalized assessment of health and illness to answer the question, as Dr. Lapraz says: "Why did *this* person express *this* disorder in *this* organ at *this*

time." We refer to this approach as modeling because it is not possible to precisely quantify and measure life in all its dynamism and complexity. Nevertheless, it's a valuable tool.

The nameless is the origin of all Life

The named is the manager of terrain

How does Life exist in a specific form? It is what distinguishes you and charcoal, which are both carbon-based objects. A name identifies. Life is nameless because it cannot be identified because it lacks quantity and form. But we can see its signs—the outcome of life. And we know that all organized events have an organizer—a manager. The manager of the terrain is the endocrine system. It manages metabolism: the ceaseless transformation of material and energy, the *sine non qua* of biologic life.

Thus, the endocrine system is the primary object of interest in Endobiogeny—not the disorder and not the symptoms. They are derivative. At the origin of all non-genetic disorders is a unique constellation of neuroendocrine and emunctory organ dysfunctions. These combinations create a pre-critical terrain that makes us susceptible to a disorder. Once an event challenges our body, a pathologic response creates a critical terrain, which is the environment that actually entrains the symptoms associated with a disorder.

Those bound to reductionism

Observe not the signs of the manager

Those who see not the signs

Follow not cause but effect

The standard reductionist medical approach catalogues symptoms and calls this disease. They do not recognize that symptoms arise from the metabolic output of tissues, which is managed upstream by the neuroendocrine system. Thus, they follow and try to control the effects of disorder, which they mistakenly call its cause.

Those free of reductionism

Observe the signs of the manager

*Those who see its signs
Follow its rhythm
So begins all knowing*

An endobiogenist sees the signs of a disorder and follows it back to its upstream origin. Life occurs in rhythms. There is a cycle to life of a cell: intake, processing, rest. Our entire life we have a heart that beats in variable rhythm. The same is true for respiration, neuronal firing, and hormonal secretion. To know the rhythms of life is to know life.

This is the beginning of all knowing.



Laozu riding an ox, www.wikipedia.com

2: Healing and Health

When the world knows health as health, illness arises
When it knows youth as youth, infirmity arises
Thus, being and non-being produce each other

Hyper- and hypo- functioning reveal each other
Central and peripheral support each other
Autonomic and Endocrine harmonize each other
Sympathetic and Parasympathetic follow each other
First and second loops create an endless cycle [1]

Therefore, the endobiogenist:

Manages the work of inter-related actions
Supports adaptation syndromes

She works with the myriad processes but does not control
She discovers the actions of plants but do not possess them
She acts rationally and does not presume

She heals but does not dwell on healing
It is because she does not dwell on health
That it never goes away

畢

[1]: The theory of Endobiogeny arranges the major hormones of the body into four alternating groups based on the predominance of catabolic or anabolic actions of the axis. This makes one series in alternation: catabolic-anabolic-catabolic-anabolic. This order represents adaptation and recovery, breaking down and rebuilding in permanent dialectic. One series is a loop because the fourth axis of hormones stimulates the first group for a second and final loop of activity.

This conceptual framework is the basis of characterizing every disorder based on which area in the series of 8 alternations is the originator of dysfunction and which respond in turn. This creates the rational basis of selecting polyvalent medicinal plants and mushroom therapies that address the specific groups of imbalances in specific patterns of activity. This is how the endobiogenist regulates the terrain instead of controlling it. We seek to work *with* life, not against it.

3: Directed non-specificity

Do not glorify a perfect biology of functions
 Lest patients quibble over values [1]
 Do not treasure states of health hard to obtain
 Lest people seek fads and trends
 Do not show the desired indexes
 Lest their hearts be confused

The management of the endobiogenist
 Empties patients' hearts of worry
 Fills their bellies with wholesome remedies
 Weakens their ambitions for fads
 Strengthens the bones for the true work of healing

Let the endobiogenist have neither cunning nor greed
 So those who scheme will not dare
 Meddle with physiology or act with contrivance

And nothing will be beyond management

畢

[1] The [GEMMA](#) biomarker analysis system (formerly called the “biology of functions” meaning “functional biomarker analysis”) consists of hundreds of indexes, which are mathematical equations that estimation of physiologic function. Because indexes are derived from combinatorial arrangements of biomarkers, they have numerical values. This is a quantitative assessment. But life is qualitative as discussed in the commentary to Analect 1. When presenting the “results” of the biomarker analysis, rather than discussing specific values, such as “Your cortisol index value is 21. That’s 3 times above normal!” I paint a heuristic story of how the patient’s physiology is trying to

adapt to life, how effective or ineffective it may be. For example, I might say “Your first responder stress hormone is working hard to keep you safe, but it’s overdoing it. Let’s bring that back into balance.” It’s important to reassure the patient that if we can characterize an imbalance, we can treat it.

Commentary: Physicians often assume—incorrectly—that by showing complex, technical information they are empowering the patient with knowledge. And behind that intention is the need to establish their own authority as the one who *really* knows what’s going on. The technical and abstract nature of human physiology often results in more confusion and worry on the part of the patient than reassurance.

From our perspective, the doctor-patient relationship first is to assuage, reassure and comfort. Whatever promotes this is encouraged. Whatever does not, is not. Some endobiogenists present index values to their patients, perhaps for the same reasons a radiologist shows MRI images to a patient. However, I do not advise this except in specific circumstances. It is not to hide the truth, but to contextualize the presentation of information around reassurance and the development of a story of imbalance and a happy ending. Discussing index values creates perseveration on numbers and a desire to reduce the qualitative *flow* of life and *experience* of health to the control of quantitative values. I prefer that the patient have an sense of general improvement, worsening or stability. *

References

1. Roux J, Mariéton P, Hapgood IF. *Meditations of a Parish Priest: Thoughts*. T.Y. Crowell & Company; 1886.
2. Laozi, Lin D. *Tao te ching : annotated & explained*. SkyLight illuminations series. SkyLight Paths Pub.; 2006:xxxi, 169 p.