

# Cognition and Reality

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## Abstract

My study rebuilds the basic cognitive principle to approach the true form of motion reality. Scientific study and development have always been led by facts but has never been able to reach the basic truth. This is related to our basic sensory and cognitive modes. Our cognition and practices have been developed based on functionally created facts which are at odds with the motion directed natural principle formed in reality. Our basic sensory form is integrated by interactive features formed based on interactions between our senses and environment. We do not sense the true motion features of reality. This cognitive mode successfully meets our survival needs of interacting with the environment. However, for the development of a sustainable civilization it's necessary to break through the ultimate barrier between cognition and reality. We need to realize the functions and limitations of our cognitive mode and how that effects human social practice and development, and most importantly, the natural world. This is the way to fundamentally understand and solve the societal and environmental problems caused by human development.

**Keywords:** function of integration, integrated society, cognitive forms, Cognitive principle, cognition and motion, interactive mechanism, limitation of cognition, cognitive evolution

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## **1 Introduction**

The diversified development of culture and knowledge shows the great capacity for creativity possessed by human cognition. However, we also have many different understandings about the nature of truth and reality, showing also the limitations of cognition.

The creative capacity allows for growth and development, but the limitations have to lead that development to the many predicaments we now face. The very principle that supports this creativity is the same principle that causes these inherent limitations. A breakthrough requires a point of view which goes beyond our basic cognitive form.

I study the forms of cognition and motion. Through my articles, I will share with you new insights regarding our cognitive forms, the limitations therein, the resulting conflict (explaining how our every developmental advancement inevitably seems to lead us further from harmony with our world) and also the solution; that is, how we can break through these limitations and evolve to the next stage of human civilization, one in which we are in harmony with the natural motion systems that surround us.

## **2 The form of cognition**

To be able to understand a cognitive mode fundamentally requires a point of view which goes beyond the principles of cognition. Our sensory system is interactive and an integrated form of cognition (Fu, 2019). It has been tested and adapted to daily survival needs. Interaction (the mechanism) and integration (the form) are the two key factors of sense. The benefits of cognition based on the interactive information mechanism and integrated information include accurate guidance of the interactive activities and rapid identification of the environment. However, the limitation of this form of cognition is that it can't cognize the motion form of information. It means we can interact with reality through our senses but we can't cognize motion truths through sense.

## **3 The function of integration**

The content of integrated information is the relative features. So the integrated information is not limited by the type of units as long as their integration contains relative features, such as negative and positive, black and white, strong and weak, 1 and 0 etc. Here we can call these relative features as

negative and positive features (NPFs). The NPFs can represent the features of interactions and be formed, passed, recorded and synchronized during a series of interactions, thus completing the interactive information mechanism.

For example, light undergoes a series of reflections during interactions with the environment, forming light with a relatively weak or strong distribution. When the light of varying intensities excites visual receptors, neural currents are produced with varying intensities proportional to the intensity of illumination. The currents trigger electrochemical reactions within the synapses and form neural-pixels with NPFs which are proportional to the intensity of the currents. The sensory information process is based on an interactive information mechanism.

Our senses gather information from multiple interactions such as sight, sound, and many more. They not only work to detect the environment and direct our interactive activities; they also decode the environment into sensory forms based on interactive features. Senses must take interactive features as basic information as the request of survival needs. It is a functionally directed cognition mode. If we sense the natural motion features of the environment directly instead of recognizing the interactive features, our senses would lose the ability to direct our daily interactive activities with our environment. Without any doubt, the cognitive mode we are born with is the best suited for our survival needs.

Our senses are functional as a practical tool for survival, not as observers of truth. They allow cognition based on integrated forms and interactive features so we can only develop functional cognition based on the integrated principle together with interactive experiences, which do not involve the motion form of reality. When it comes to needs of survival, consider our understanding of the conceptual 'apple': red, delicious, cures hunger and thirst, provide energy. Through these dispersed bits of information and experiences, we can integrate an informational structure to form the functional cognition concept that the red apple is a delicious food source.

The process of integrated cognition is: collect dispersed information, piece together the information randomly until a certain structure of information can meet the functional needs, then establish a cognitive mechanism. Our sensory cognition, through the integration of relative features, in a way similar to cards for detecting colorblindness, functionally highlights the relative differences of information to achieve the purpose of decoding and identifying the environment easily and quickly.

In the process of advanced integrated cognition, we choose certain information and organize the information with a functional mechanism to complete cognitive activities such as: describing, identifying, explaining, understanding, assuming,

inferring, judging, creating, etc. to meet diverse advanced cognitive needs. This integrated mechanism is based on a creative mechanism which is functionally directed. This functional cognitive mode is what promotes the development of human technology.

The functionally directed cognitive mechanism is commonly referred to as 'logic'. We judge a statement as logical or not based on whether it builds upon on a recognized functional mechanism or not. If not it will make no sense. However, nature doesn't run by principles of logic because nature is not functionally directed. Reality is dynamically directed and nature is a motion system. It developed with a continuous and harmonious foundation due to the ductility and self-consistency of motion form. The development of motion is directed by the characters of the motion form itself. A motion system, such as nature, provides a world principle for continuity and harmony. Any motion phenomenon which has formed in nature (including life) automatically blends into this dynamic foundation.

However, human creativity is artificial, a functionally created structure, as it lacks a dynamic foundation. This integrated creation of technology doesn't blend into but rather ignores and damages the dynamic foundation of reality. The dynamic principle is the enemy of the integrated mechanism. Therefore, natural dynamic development won't produce an integrated structure (such as machines) and functional directed creations can't imitate the natural dynamic systems (such as life).

There are interactions between our sensory system and the external world, but our sensory form is virtual (non-dynamic) and integrated. In other words, reality does not exist in the form we sense. I call this cognitive mode the Virtual Interactive Cognitive Mode (VICM). The VICM is a non-motion cognitive mode based on the interactive mechanism and virtual integrated information. Through the VICM we can cognize and control interactions and also create virtual cognitive forms to describe reality.

## **4 The scientific world view and developmental concept**

The scientific world view considers that everything is made of units of matter. This is because our senses are integrated by units of information. This material point of view is an integrated world view decided by the principle of cognition. Material motion based on our senses is only virtually dynamic motion. However, the updating of integrated information doesn't contain any motion mechanism.

Science is the application of the VICM, based on a virtual but functional cognitive mode. Scientific facts are creations based on interactions. They don't naturally exist, but they happen consistently through scientific experiments and are functionally proven. Scientific cognition considers that as 'fact'. However, scientific practice avoids a very important fact which is that scientific study does not understand the truth behind the facts. We face a lack of understanding of our cognitive form and its relationship with reality and are further misdirected by our current world view and concept of development.

Scientific 'facts' are cognized from an integrated point of view and the dynamic foundation of reality has been removed from consideration, leading the scientific study to methods of deconstruction and integration which promote development based on random innovation and creation. Human technology creates change and takes control of reality by functionally directed interactions which ignore and even damage the dynamic nature of reality. Thus these artificial "facts" are damaging the natural "truth".

It is not difficult to be aware of the limitations and the solution. Even though we have a great capacity for creation, we are unable to learn the motion mechanism all around us that we can clearly sense or observe. The reason is actually quite simple. Before we have made the awareness and breakthrough of our cognitive form, the scientific study of nature and application of technology remains completely blind. The creation of technology based on a functionally directed integrated structure depends on sustained energy consumption. Technology based on this integrated and deconstructionist point of view releases the energy of motion through the destruction of the natural motion mechanism, in order to meet the energy needs of integrated technology. These two factors have led scientific technological development to follow the path of dense integration and high energy consumption.

To be aware of the limitations and the solution is a pressing need for scientific practice and development. Dynamic cognition and its practice are beyond the ambit of interactive science, but this is not a critique or call to end functional scientific advancement. Rather, dynamic cognition can lead us beyond the current misguidedness and chaos by providing an essential base and direction for scientific study and development. Science as a field should be functionally executed but dynamically directed to benefit humanity as well as the natural world.

## **5 Functionally directed society**

Integrated social structure can be considered the application of integrated technology. It is a functionally directed structure that enabled increased

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productivity and enriched living resources, but the non-dynamic form doesn't provide a foundation upon which to develop a society that has dynamic needs. Without a dynamic mechanism, few people capture the majority of resources while the labor majority has been distributed a small amount.

Rigidity and inhomogeneity are the characteristics of a nondynamic society, which suppress and distort the dynamic nature of humanity and create the eternally false proposition of human nature as inherently good or evil. Centralization and control are basic methods to build up integrated structure which inevitably leads to enslavement and war during the development of integrated society. The bottom of these problems is that they are all caused by the limitations of the integrated form of society. Throughout the history of human society, the functionally directed structure has promoted technological power and ability, but as a world principle it has failed in every way; it's inharmonious, unbalanced, discontinuous, centralized, and based on control, causing human suffering time and again.

From the basic functional point of view, modern social structures are integrated by three parts: resource procurement, production and consumption, excretion of waste. All parts operate towards maximizing social function, but without a dynamic foundation. This creates disorder in addition to inordinate exploitation, overproduction, overconsumption, resource exhaustion, massive waste, environmental pollution and ecological damage. Functional development is random and out of control.

Although there is more awareness of the importance of the dynamic needs for continuity and harmony within social development, due to the limitation of our cognitive form, we can only do damage control. We are unable to solve the problem caused by the inherent faults of the social principle and form. Human society has been kidnapped by a functionally directed principle.

Let's contrast this with a dynamically directed and self-functional system. The human body is a fully functional dynamic system. Functional activities also include resource procurement (eating and drinking), production and consumption, (gaining and expending energy) and excretion of waste. But rather than being built by functional structures, these activities are directed by the dynamic foundation inherent to the human body's system. We can't ignore the existing dynamic foundation with the aim of maximizing functionality. From conception to adulthood, the operation of all functional activities is directed and supported by a continuous and harmonious development within a dynamic living system.

Understanding the different nature of functionally directed and dynamically directed systems could help us to be aware of the misguidedness of a functional social mechanism. This will allow us to set our sights on the real solution to the social problems we are facing.

## **6 Human society and the natural ecosphere**

The earth's ecosphere is a dynamic system, not unlike the human body. All life systems are based on a similar dynamic principle, since they developed within the dynamic system of the ecosphere, automatically copying the dynamic mechanism of growth and development. However, due to the limitations of the non-dynamic cognitive form we have difficulties building connections between dynamic systems.

The Earth's ecosphere is a complete and closed dynamic system. Even without bone and muscle tissue, it is a system founded on the cycles of water and air, just as inside the human body. Within the earth's ecosphere system, there are multiple organisms that function like various cells in the human body. From this point of view, the reproduction of certain organisms in the biosphere is the same biological activity as a cellular division in the human body.

Cellular division is the function of cells that support the operation and development of the biological system, the same function as various organisms in the ecosystem. These biological activities are all regulated by the dynamic mechanism that keeps the ecosphere balanced and self-sustainable. At the time of early hominids, our ancestors also acted as normal "cells" whose reproduction and activities followed a dynamically directed natural principle. At the dawn of agriculture, human's mode of living underwent a mutation of sorts and began to develop a functionally directed society. After a period of low-speed development, humanity stepped into industrial civilization.

The rapid development of technology allowed the utilization of more resources from earth's ecosphere. Human society broke away from the dynamically directed principle of the ecosphere completely and rushed towards a period of rapid proliferation, due to the functionally directed mechanism. Even though the increase of human capacity for growth and development and the abundance of living resources can be considered as a great achievement of humanity, from the dynamically directed point of view of earth's ecosphere, functionally directed modern society conforms to all the features of cancer. The development of cancer starts with cell mutation. It then breaks away from the body's dynamically directed system and starts functionally directed development which is maximizing cell function: infinite cleavage and rapid proliferation.

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Since the industrial revolution, human society has been cancer to the earth's ecosystems. The digital information era pushed society into an even faster developmental period. Functionally directed scientific and technological development has allowed human an even stronger and more efficient capacity for rapid proliferation. This combines with the push from our current developmental concept which praises rapid and infinite acceleration of development. In a short time, human's explosive development has caused ecological havoc, rapid depletion of natural resources, massive pollution, the severe compression of the other normal 'cells' (organisms), and the destruction of the overall ecological balance. The functionally directed society has the same developmental trend as cancer in the human body. As it enters the later stages, it develops more rapidly and causes more damage to the system in which it resides.

The natural motion system, which is adjusted and supported by a harmonious and continuous principle, is stable, regular and has low energy consumption. When the principle is damaged, systemic turbulence and internal conflict result. Non-dynamic cognition and the functionally directed practice of mankind have clearly caused interference and even destruction of the natural dynamic system. From a systemic point of view, global warming is a sign of increasing energy consumption within the dynamic mechanism.

The functionally directed growth mechanism is strong, but cuts corners. Without external intervention, like surgery and radiation or chemotherapy, the spread of cancer is unstoppable. However, as tough as cancer is, when it reaches its fastest and strongest period, it is called the 'terminal stage'. The development of cancer is misguided by a functionally directed mechanism and finally destroys the dynamic foundation for its own existence, and everything else as well. We have to be aware that although the functionally directed mechanism shows us unlimited potential, it also limits our vision and causes us to neglect the dynamic foundation that is the reason for all that happens and exists. If we can see through to the essence of the problem, we will see that the solution is to transform our functionally directed blind development into a dynamically directed civilization system. This provides a solution to help ourselves while at the same time repairing and compensating the natural ecosystem. The transformation must be based on the evolution of our cognitive form.

## 7 Dynamic cognition

The fundamental traits of human consciousness are stability, continuity, harmony and regularity. It is based on a dynamic foundation. I call it dynamic consciousness. It is the foundation for all of our cogitative activities. The cognition humans develop after birth, in order to adapt and interact with the environment for survival needs, is the VICM, which is non-dynamic. Although dynamic consciousness is the prime foundation of cognitive activities, the form and principle of our cognitive mode is still decided by the form and principle of the cognitive subject. For example, our cognition, based on integrated sensory information, is non-dynamic.

Of course, on the other hand, the existence of dynamic consciousness also makes it possible to develop a dynamic cognitive mode. The problem is that for the individual human being, dynamic cognition is not needed for survival, so we lack any pressure to develop it from the beginning. Humans have created a functionally structured society without awareness of the cognitive prerequisite. To build up a sustainable civilization requires a separate cognitive form and mode from that needed to meet an individual's survival needs. We need a complete understanding of the natural motion form and dynamic world principle.

A self-motivated cognitive evolution is the biggest challenge facing humanity. The difficulties not only come from the cognitive development process but also the misguidance and friction against the current mainstream functionally directed cognition and mechanism. It requires great courage to re-examine the principles and limitations of the current cognitive mode and escape from its influence.

The two forms of cognition are based on different principles. The development of dynamic cognition must start from the very bottom and rebuild a separate cognitive principle to approach the true form of motion reality. The active dynamic cognitive mode can cognize motion form, features and mechanism directly, and naturally, develop a knowledge system based on them. My research 'cognition and reality' was not inspired by the scientific point of view and methods of study. Instead, it has a dynamic knowledge system as a background. Building upon dynamic cognition fundamentally requires avoiding the influences of the current cognitive mode and methods of study. My studies include the path for dynamic cognitive development, the dynamic model as relates to social transformation and technology, and the advanced dynamic cognition to understand the principles of motion, including living systems.

## **8 Conclusions**

Stretching out the timeline of Homo Sapiens, human civilization has been around for a relatively short period of time and can be considered as a mere ‘transitional’ period. However, I believe the rapid development of functional societal practice and the resulting environmental issues are signs of a failure of the evolution of civilization. The functionally directed cognition and achievements make us optimistic towards future advancement, but the dynamic systems of earth’s ecosphere will collapse, and do so in a time and way which can’t be predicted or understood from a non-dynamic point of view. This deterioration will be irreversible and completed in a very little time. The chance for success is small, but we need to act while we still can, and do so in the right way.

## **References**

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