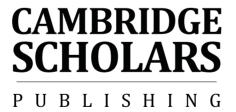# Traditional Chinese Philosophy
and the Paradigm of Structure (Li 理)

Traditional Chinese Philosophy and the Paradigm of Structure (Li 理)

By

Jana S. Rošker

CAMBRIDGE SCHOLARS

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This book is dedicated to Prof. Radovan Stanislav Pejovnik who fights for equal opportunities in education and believes that openness of mind has the power to bridge intercultural differences. I am grateful to him for teaching me that great things are born from tiny sparks of inspiration.

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ACKNOWLEDGEMENTS

今日中國的新哲學, 必與過去中國哲學有相當的繼承關係, 我們所需要的新哲學, 不只是從西洋的最新潮流發出的, 更須是從中國本來的傳統中生出.

Contemporary Chinese philosophy should remain connected to and continue the Chinese philosophy of the past. The kind of philosophy we need should not be based only on the most recent results of Western currents of thought, but should look primarily to the authentic and original Chinese tradition.

—Zhang Dainian

INTRODUCTION

STRUCTURALISM
AND ITS CHINESE ANCESTORS

On the threshold of the third millennium we have entered an era in which the concept of structure is perceived as something self-evident and omnipresent by most people. Structure has become a fundamental, though often vague notion which includes comprehension, observation, the nature and stability of patterns, as well as relations among individual entities. The concept of structure is of crucial importance for virtually any type of research in the domains of science, philosophy and art. Structures have also often been defined in terms of the acquired or habitual paradigms of our perception and comprehension of the world. We thus view the creation, formation and changing of objects as something that occurs within structural patterns. Structure is basic to every system and when the dynamic component of time is included or implied, also to every process. It is a configuration of particular elements or factors. It can be hierarchic (as a series of relations between one entity and several others) or it can represent a network of manifold relations among different entities. It is hardly surprising, therefore, that by the mid-20th century a structural approach to the comprehension, recognition and interpretation of reality had begun to increasingly dominate Western[1] discourses in the humanities and social sciences.

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[1] The connotations of the terms "East" and "West" in the sense of an explanatory model are problematic and risk producing crude generalizations. Because of essential and decisive differences between the basic conceptualizations of Indian and Chinese philosophical systems, the term "Eastern philosophies" is likewise completely inappropriate and should not be applied at all. In the present work, the terms "Eastern" and "Western" as categorical interpretative models are not used in a rigidly political or geographical sense, but as notions that stem from a reflection on the distinction between transcendental and immanent metaphysics. The concept "Western" means the area of culture and civilization which has been defined by the three Abrahamic—Semitic religions, i.e. Judaism, Islam and Christianity. These religions all have in common the following important characteristics: transcendentalism,

In terms of the main theoretical currents existing at the start of the 21st century, such approaches have been summed up by the notion of structuralism. Structuralism represents a complex category that covers a wide range of different programs and methods, which enable us to perceive and interpret patterns of relations as a basic paradigm of reality. In particular, from the mid-20th century onwards, structuralism became a leading theoretical current in "Western" theories, in both the natural sciences as well as the humanities and social sciences. The majority of structuralist theories (including post-structuralism, de-constructivism, post-modernity etc) are based upon the structural approach to the recognition, perception and interpretation of reality, by which no object can appear in isolation from other objects. In this sense, objects can only exist as parts of structures that connect them to other entities. Such discourses are always based or focussed upon a structure, which therefore determines every objective status and—ultimately—every being as such.

Structuralism has been elaborated and developed, in different ways, by all the above-mentioned theoretical currents (and others as well). The fundamental difference between these currents and earlier structuralist discourses lies in the fact that structures were viewed by post-structuralist (de-constructivist, post-modernist...) critics as being less static and were inserted into frameworks of dynamic processes. This dynamic view for the most part implies an emphasis upon historical discontinuities, and the conditions by which structures are determined and came into existence. Another important characteristic of post-structuralist discourses is a critical approach to normative representations and theoretical principles, and the investigation and analysis (primarily through the application of psychoanalytical, discursive, semiotic and linguistic-philosophical methods) of the validity conditions of the principles which underlay classical metaphysical systems.

Such structures are also often defined by the conventions of our perception of and interaction with the world and can therefore explicate the modes or patterns by which objects have been consolidated, formed and altered.

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monotheism (or the Trinity in Christianity), singularity (the monopoly of validity), universality (universality of validity), individuality (constituted by a separate and independent existence of the Self, inhabited by the soul) and the idea of immortality. None of these elements can be found in discourses of immanent metaphysics, which are prevalent in so-called "Eastern" civilizations. (Galtung 1994, 7) When the term "Western" is applied to language, it indicates the languages of the Indo-European group.

In structuralism, phenomena or objects that can be observed and described are divided into segments, with which a relation can then be established or reconstructed. Structuralist approaches seek to situate the analyzed phenomena in a framework of heterogeneous (coordinate) networks, in which each element is determined by certain characteristics, correlations and oppositions that arise from their mutual relations.

In short, structuralism (including its critical negation and elaboration, commonly known as post-structuralism) was one of the most important theoretical paradigms of the 20th century, and had a significant impact upon theoretical currents in contemporary linguistics, sociology, anthropology, history, psychoanalysis, literary theory, and other disciplines as well. The structural model elaborated by the dynamic patterns of post-structural discourses represents a crucial turning-point in the comprehension of the essence and functions of language, subjectivity and culture.

Naturally, all these discourses could not avoid investigating certain epistemological issues, such as the relation between subject and object (or the Self and the Other), or the interrelations among perception, comprehension, interpretation and transmission. In fact, 20th century Euro-American theoretical production generated a number of elements which, especially when based on new, fundamental theoretical approaches in the philosophy of language, caused some major cognitive shifts in the humanities, and in the cultural and social sciences. However, despite such recognitions, Western discourses have yet to produce an integral and coherent structural model of epistemology and the debate over structural epistemology continues to trouble the sleep of many Western theoreticians. (Psillos 2006, 560)

In this context, etymological studies and studies of the semantic development of the Chinese concept of structure, together with the comparative analyses of traditional Chinese and Euro-American theories can provide valid tools (the debate concerning such intercultural comparisons notwithstanding) for clarifying some basic questions concerning the nature of human perception and the recognition of reality.

In the history of Chinese thought we can find many different models of structural onto-/epistemology[2]. These models, especially those of the pre-Qin era, were relatively simple theoretical systems due to the historical period in which they were formulated. Nonetheless, in such systems one can already clearly discern the germs of later development. In the centuries

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[2] In traditional Chinese philosophy, there is virtually no distinction between ontology and cosmology, and epistemology.

which followed, their theoretical foundations would be constantly expanded and refined, becoming gradually more complex, with significant elaborations of earlier basic suppositions.

In the Chinese tradition, structural epistemology was closely linked to a structurally conditioned understanding of the universe. Theories of structural semantics, the origins of which can be traced back to as early as the ancient Mohist school (ming jia 名家), occupied a privileged position within such theoretical models. These proto-discourses would have a decisive impact on later theoretical developments in this specific area, most of which took place from the 2nd to 6th centuries AD. This theoretical shift followed the debate on the nature of the relation between concepts (names) and realities (ming shi 名實), which had already occupied ancient Chinese theorists and which would reappear in later Neo-Daoist discourses on the relation between language and meaning (yan yi 言意), i.e. between comprehension and interpretation. However, beginning in the 17th century, due to specific conditions within Chinese society, and the fact that for the next three centuries Chinese philosophy would be intent mostly upon integrating and assimilating Western concepts and thought, the main currents of traditional thought entered into a prolonged period of stagnation. In fact, only with the start of the 20th century did new developments in the theory of epistemological structuralism occur. But this brief revival was cut short by the founding of the PR of China and its concomitant ideology, which dictated that priority be given to an expeditious sionization of "Marxist" and Leninist theories, and the creation of a Maoist system of thought. However, before this artificial freezing of theoretical developments occurred, a number of new epistemological systems based upon structural approaches to the comprehension of reality, and which incorporated many interesting syntheses of modern Western and traditional Chinese thought, had already emerged.

Any study of the development of early 20th century philosophical models which include attempts to synthesize Western and traditional Chinese theory, must take into account the work of Zhang Dongsun 張東孫 (1902–1973), the leading modern Chinese theoretician of knowledge who, in the first decades of the century, developed a specific epistemological system, or so-called "panstructuralism"[3]. According to the contemporary thinker, Zhang Yaonan 張耀南, this system already contained the germs of

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[3] For a detailed discussion of this system, see Chapter 5, Plurality pf Comprehension.

structuralism, which had thus been developed by Zhang Dongsun 張東孫 nearly a half-century before this discourse began to dominate in advanced Western academic theories.

> 20 世紀 20 年代, 張東孫先生 (1902–1973) 提出了一種他稱之為 '架構 論' (Theory of structure) 的 '結構主義' (structuralism) 宇宙觀, 並在以後 20 年間不斷完善, 使其成為 他 本人終生不願放棄的幾個基本觀念之一. 就時間上說, 這一 宇 宙觀的正式形成要比西方 '結構主義'
> 風行歐美 (20 世紀 60 年代) 早出將進 40 年; 就內容上說, 這一宇宙觀 完全改變了二十世紀 中國 哲學家的固有思維方式, 開了二十世紀中國 哲學 '非本 體論化' 的先河. (Zhang Yaonan 2000, 143)

> In the 1920s, Zhang Dongsun (1902–1973) established a cosmological structuralism, which he called the "Theory of Structure"[4]. Over the next twenty years, he continued to elaborate this theory as one of his basic paradigms, and would not abandon it until the end of his life. We should point out that this theory was elaborated almost forty years before the appearance of Western "structuralism", which grew into one of the leading discourses in Europe and America. In terms of its content, this cosmology completely changed the previous mode of thinking of 20th century Chinese philosophers and was a precursor to the new "deontological" approaches of Chinese philosophy.

Zhang Dongsun's excellent knowledge of Western philosophy was not limited to classic European thought, but also included the main Euro-American discourses of his time. But when viewed from the perspective of his own philosophical tradition, Zhang Dongsun's structural epistemology is not only linked to philosophical currents that would later give rise to Euro-American structuralism, but is clearly also rooted in one of the central paradigms of autochthonous Chinese thought[5].

As we shall see, traditional Chinese philosophy had developed a paradigm of theoretical epistemology based on the concept of structure, or the assumption of a structurally ordered world, an idea which is reflected in most classical Chinese philosophical works. Hence, this structural cosmic order is not only a foundation of Chinese epistemology, but also constitutes a basic paradigm of classical Chinese philosophy as such.

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[4] Zhang Dongsun actually called his theory "Panstructuralism" (泛架構主義).

[5] While this paradigm undoubtedly defines Zhang's model of structural epistemology in a profound way, it is not the only traditional influence that informs and pervades his theory of knowledge. As we shall see, his work is also rooted in certain assumptions of Chan Budhism and Kantian philosophy.

The present study aims to explore and highlight this paradigm which, however, can only be properly understood based on the application of research methods rooted in categorical applications and semantic developments originating within that same classical Chinese philosophical tradition. The reasons why traditional Chinese philosophy—at least in Western sinology—has not been investigated from a structural perspective until now, are multiple and multifaceted and will be analyzed in detail in later chapters. For now, we shall limit ourselves to indicating some of the basic assumptions that condition similar insights into the specific Chinese structural worldview, together with its epistemological implications.

The structural understanding of the cosmos, and all that exists within it and forms a vital part of it, is a specific feature of the classical Chinese holistic worldview. The interconnection between all the factors of being forms a system which is based upon a structural order. This basic structure, however, is not merely a static formal system which prefigures and conditions the composition of the universe, but also represents an organic and vital formation. As a dynamic organism that pervades everything that exists, it is therefore systemically compatible not only with all the inanimate objects contained within it, in accordance with the rational, structural patterns of the universe, but also with the organic constitution of living beings that form its vital natural parts. However, the structure of existence which manifests itself in this paradigm is also conditioned by another important aspect, given that its system, which is based upon an ontological duality of immanent metaphysics[6] (including, as it does, both the ideal principles as well as the concrete particulars of existence), is also infinite and therefore open. This is precisely why the traditional Chinese worldview is not, in essence, deterministic, for everything that exists forms part of a structure that exceeds the conditions of its concrete actuality. Human will is thus a factor which can—though, of course, only within the narrow limits of an individual existence—also act against the structural norms of the cosmic order, even if most traditional philosophers discourage such a course of action. The following maxim from the pre-Qin[7] era of Chinese philosophy, can help us clarify this concept:

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[6] This ontological duality will be examined in greater detailed below, especially in Chapter 1 which examines specific features of Chinese philosophy.

[7] In academic works, this term (先秦) denotes the era of the flourishing of ancient Chinese philosophy, also known as the Period of the Hundred Schools (百家). It refers to the period that extended from the 7th century BC to the first unification of the Chinese state under the rule of the Qin 秦 (221–206 BC) Dynasty. In recent decades, this term has also been adopted by most Western sinologists.

上亂天文，下滅地理，中絕人和. (He Guanzi 2010. Du wan: 1)

If the patterns of heaven are disturbed above, and if the structural order of earth is violated below, the harmony between people in the middle will be destroyed.

Specific Chinese models for theories of knowledge were thus premised upon a structurally ordered external reality; since natural (or cosmic) order is organic, it naturally follows the "flow" of structural patterns and operates in accordance with structural principles that regulate every existence. In this worldview, the human mind is also structured in accordance with this all-embracing but open organic system. The axioms of our recognition and thought are therefore not coincidental or arbitrary, but follow this rationally designed structure. The compatibility or correspondence of both the cosmic and mental structures is the basic precondition that enables human beings to perceive and recognize external reality. As we shall see, this paradigm of structural epistemology can already be found in the earliest Chinese theories of knowledge.

The introduction of Chinese models and their incorporation into Western discourses fills an important theoretical gap in the Western model of structuralism. But not only, for gaining insight into epistemological systems that arose outside the discourses of the Euro-American tradition can help us to eliminate and supersede certain culturally conditioned prejudices as to the superiority, dominance and omnipresence of Western theoretical models, while demonstrating incontrovertibly that the results of Western discourses are by no means the only force driving theoretical innovation at the present time.

CHAPTER ONE

SPECIFIC FEATURES OF TRADITIONAL CHINESE PHILOSOPHY

Essential differences most definitely exist between traditional Chinese philosophical discourses and Western ones, especially with respect to certain fundamental aspects. The most important of these differences is to be found in the principle of immanence which, in terms of its basic characteristics, differs completely from the concept of transcendental metaphysics. Another important specific feature of traditional Chinese philosophy is the structurally ordered, holistic worldview which is rooted in binary relations between pairs of antagonistic notions, and which we will denote with the term "binary categories". The process of mutual interactions between the polar opposites that form these pairs, manifests itself in the principle of complementarity, which constitutes another basic paradigm and appears in typical patterns of traditional Chinese analogies. However, of particular importance for our purposes is the manifestation of this principle in the fundamental paradigm of medieval and pre-modern Chinese cosmogony expressed by interactions between the concepts of structure (li 理) and creativeness (qi 氣).

The Immanent Worldview and Binary Structured Holism

The immanent notions which essentially define Chinese philosophy are the necessary results of the holistic worldview. If there is no division between two worlds (material/spiritual or subjective/objective), it is difficult to determine which of the two might be more important or even absolute. And this is precisely why most of the main traditional Chinese philosophical discourses do not include the notion of transcendence, in the sense of transcending from one into another (usually "higher") sphere.

It should not surprise us, therefore, that one of the crucial notions of traditional Chinese philosophy, which is expressed (in various forms) by the concept of the Way (dao 道), is likewise immanent in nature. In its

indivisible totality, it denotes both the original cosmic principle, as well as the tiniest atoms of being which, through their infinite combinations, continuously generate all the infinitely variegated worlds of existence. Dao is thus the fundamental, abstract driving force of the universe, but also the concrete, individual "way" of each human being. Dao is both the elementary origin of every existence, and the embodiment of every particular phenomenon.

在中國哲學中, '道', 即是宇宙, 人事和人性的本體, 又是以仁義禮智信等為內容的道德實體. (Liao 1994, 46)

In Chinese philosophy, "dao" represents the essence of both the universe and every single person, as well as a moral substance that embraces humanity, rituality, loyalty and similar axiological fundamentals.

It is important to stress that in no way can it be understood as an absolute principle as we find, for example, in the theological idea of the Divine or a Divinity, or in the ancient Greek idea of substance. Immanent notions are never the embodiment of the absolute, because their nature is always conditioned by that which they seem to exceed. The concepts of the immanent worldview are based upon a relativization of all that exists, and thus they rarely appear on their own. In traditional Chinese philosophy, such a necessary relativity of reality was expressed through the aforesaid binary categories, which were composed of binary polar opposites (anti-poles).

This mutual, complementary interaction of both poles is able to express all sectors of time and space, no matter how complex. But before dealing with this aspect, in order to better understand binary concepts and the principle of complementarity let us first examine their abstract basis, as reflected in the traditional Chinese integral-structural worldview.

As is well known, the traditional Chinese worldview was a holistic on[1]. Traditional Chinese thinkers did not strictly or categorically distinguish between the spheres of matter and idea, nor between any other dualistic connotations resulting from this basic dichotomy[2]. What is much less known or recognized is the fact that this holism was by no means indiscriminate. The traditional Chinese holistic world was not some sort of homogenous unity in which everything was connected to everything else,

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[1] The Chinese holistic worldview has been traditionally expressed by the phrase "unity of men and nature" (天人合一).

[2] For example, distinctions between subject and object, substance and phenomena, creator and creation etc.

without demarcations or distinctions. On the contrary, the traditional Chinese worldview was logically ordered based on relatively strict binary oppositional patterns. On a mental-reflective level, these patterns formed a series of specific Chinese analogies[3] which underpinned or provided the bases for the prevailing method of logical thought (Cui 2005, 14–24).

Binary concepts can thus be seen as one of the fundamental characteristics of traditional Chinese philosophy. They represent a kind of duality that seeks to attain the most real (possible) state of actuality through relativity, expressed in terms of the relation between two oppositional notions[4].

> Distinctions are seen in binary terms, and primarily between pairs of opposites (with even figure and colour reduced to square/round and white/black); having drawn them, and recognized some recurring or persisting pattern (e.g. large, round, hard, heavy, and white) we detach a stone from other things in the same way that we cut out a piece of cloth or chop off a piece of meat. Things are not seen as isolated, each with its own essential and accidental properties; on the contrary, distinguishing characteristics are seen as mostly relative. (Graham 1989, 286)

Of course, binarity as such is not a specific feature of Chinese philosophy, for in its function of differentiation it constitutes a basic aspect of human thought. Instead, what distinguishes Chinese binary categories from traditional Western dualisms is the principle of complementarity, which forms a basic method for their functioning.

The Principle of Complementarity

This principle represents the foundation of the specific Chinese method of logical thought, which in sinology is known as "correlative thinking".

> Rational or logical thinking, grounded in analytical, dialectical and analogical argumentation, stresses the explanatory power of physical causation. In contrast, Chinese thinking depends upon a species of analogy which may be called "correlative thinking". Correlative thinking, as it is found both in classical Chinese "cosmologies" (the *Yijing (Book of*

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[3] The analogical model used in the context of traditional Chinese logic differs from the classical European model in terms of both its methods and functions (see Cui and Zhang 2005, 25–41).

[4] Some well known binary concepts are: yinyang 陰陽 (sunny/shady), tiyong 體用 (essence/function), mingshi 名實 (concept/actuality), liqi 理氣 (structure/ phenomena), benmo 本末 (roots/crown), and so forth.

Changes), Daoism, the Yin–Yang school) and, less importantly, among the classical Greeks, involves the association of image or concept-clusters related by meaningful disposition rather than physical causation. Correlative thinking is a species of spontaneous thinking grounded in informal and *ad hoc* analogical procedures presupposing both association and differentiation. The regulative element in this modality of thinking is shared patterns of culture and tradition rather than common assumptions about causal necessity. (Hall and Ames 1998, 3)

In other words, what we have is a structural pattern of binary oppositions which, however, differs fundamentally from the model of Cartesian dualism. This latter involves a dialectic posited upon the relation between the mutually exclusive, polar opposites of thesis and antithesis, which have been determined by an opposition which is also a contradiction. This contradiction creates a tension, in which the mutual negation of thesis and antithesis forms a synthesis. The complementary model, which was dominant in the Chinese tradition of thought, is instead based upon a non-contradictory opposition between two poles which do not exclude but complement each other, and which are interdependent (Rošker 1997, 196ff).

Contemporary Chinese scholars generally define this difference as that between two types of dialectical reasoning, in which the Western, Hegelian model tends to expose divisions and contradictions, while the traditional Chinese type of dialectical thought instead seeks to achieve a unity between these binary oppositions.

在西方，自然与社会、对象性与主体性、客观与主观、本质与现象都是二分的，显现出二元对立的哲学传统。 中国人倾向于从和合命题出发讲合二为一、辩证统一，而西方主流思想却倾向于从悖论命题出发讲一分为二、辩证矛盾。 (Hua Pingxiao 2009, 4)

In the West, Nature and society, objects and subjects, subjectivity and objectivity, substance and phenomena were seen as dualisms, which manifested themselves in the philosophical tradition of dual contradictions. While the Chinese tended towards a unification of oppositions, and a dialectical integration which was rooted in propositions of harmonic coordination, prevailing Western thought tended towards divisions of unity into dualities, i.e. towards a dialectic of contradiction that arose from paradoxical propositions.

In the complementary model that prevailed in the Chinese tradition, binary patterns did not produce any separate syntheses that could preserve "positive" elements from their previous state, while simultaneously

eliminating the "negative" ones. Zhuangzi described the relation between the two binary poles of a complementary model as follows:

故曰，蓋師是而旡非，師治而旡亂乎？是未明天地之理，萬物之情者也。是猶師天而旡地，師陰而旡陽，其不可行明矣。(Zhuangzi 2010. Qiu shui, 5)

Therefore, I am saying: why do we not preserve truth and abolish falseness? Why do we not preserve order and abolish chaos? If we think in this way, we do not understand the structure of nature, nor the state of being in which everything exists. This would mean preserving earth and abolishing heaven, preserving yin and abolishing yang. It is quite clear that this would not work. (Zhuangzi XVII. Qiu shui, DC 2008, 2)

This approach to binary relations differs greatly from dualisms as they were developed in the Judeo-Christian tradition. As we noted above, this tradition is characterized by the creation of a logocentric binary pattern which is rooted in the mutual contradiction of both anti-poles and which tends towards the preservation of one, and the elimination of the other pole. The most important specific characteristics of complementary relations, and which render them immediately distinct from binary dualisms of the Cartesian type, are thus the non-contradictionality of oppositions, the interdependence and equivalence of both anti-poles and their mutual supplementarity. This supplementarity also explains why none of these characteristics has a primary function, given that their existence is conditioned by their mutual interactions that surpass limited conceptualizations of time and space. Zhu Xi 朱熹 (1130–1200), the chief exponent of Neo-Confucianism, described this interaction as follows:

在陰陽言，則用在陽而體在陰，然動靜無端，陰陽無始，不可分先後。今只就起處言之，畢竟動前又是靜，用前又是體，感前又是寂，陽前又是陰，而寂前又是感，靜前又是動，將何者為先後？不可只道今日動便為始，而昨日靜更不說也。如鼻息，言呼吸則辭順，不可道吸呼。畢竟呼前又是吸，吸前又是呼。(Zhu Xi 2010. I, Liqi shang, 1)

If we speak about yin and yang and say that yang is the function, whereas yin is the substance, we should realize that yin and yang have no beginning, just as movement and stillness have no culmination. Here, we cannot speak about before and after, or front and back. Today, we are accustomed to saying that before movement there necessarily had to be stillness, and that before any function there had to be some substance. Before perception there should always be solitude and before yang there should always be yin. But before any solitude, there is also some perception and before any

stillness there is movement. How can we claim that one came before, and the other after? We cannot speak only about today's movement and place it at the beginning, and simply forget about yesterday's stillness. It is the same as breathing. We are accustomed to speaking about inhalation, followed by exhalation. We never speak of them the other way around. Yet, there is an exhalation before any inhalation, just as there is an inhalation before any exhalation.

Chinese Analogy

These complementary relations also form the basis of the traditional Chinese analogical model, which represents the principal form of a specifically Chinese logic. This model is a specific form of thought, based upon the structural ordering of relations.

> 人主出言，順於理，合於民情，則民受其辭，民受其辭，則名聲章.
> (Guan 2010. Xing shi jie 11)

> Words, expressed by rulers are in accordance with the structure and are therefore congruent with the situation of the people. Thus, the people can accept his statements. And if they accept them, the correct names are established. Relational reasoning, including the distinctively human capacity to see analogies between disparate situations, requires the ability to mentally represent and manipulate the relations among concepts. (Knowlton and Holyoak 2009, 1005)

Analogism, which is the dominant type of Chinese logic, derived from the specific social context existing in China during the pre-Qin era. This method was often used by the earliest Chinese philosophers. They investigated, developed and applied it to a wide and diversified range of ideologies. Analogisms have the property of general analogical inferences. These are based upon the structural similarity of the objects in question, i.e. upon the identity of two kinds (or types) of things that have certain attributes in common. Upon confirming this identity, we can then deduce that these two kinds (types) of things must also be identical with respect to the rest of their attributes. Thus, if we have two objects (A and B) with a series of common properties (e.g. P1, P2…Pn) and if object A has the property q, then we can analogically infer that object B also has the property q (Cui and Zhang 2005, 26).

Analogical inference is not only an inference that has been drawn between one particular/specific and another particular/specific; it also represents a type of inference in which the premises are not necessarily connected to the conclusion. The connection between the premise and the

conclusion pertains to the sphere of probability; hence, this type of inference belongs to the category of probability inferences.

Nonetheless, the Chinese method of analogical logic met the basic requirements of scientific demonstration, i.e. it clarified the origin of a certain knowledge, the logical inevitability of its sources and the supporting demonstration (Cui and Zhang 2005, 29). One of the most important aspects of traditional Chinese analogism is that it did not focus exclusively on forms without considering their contents, a method which could be seen as useful for advocating one's own ideas, while refuting the ideas of others. At the same time, it also provided a basis for an awareness of ethical, political and social issues. We should also stress that analogism, being an inference based upon similarities between the known and unknown, was not only a model which could be applied to existing experience, but also had certain epistemological effects. It was thus relatively easy to apply as a model for the determination of truth.

> There is an objective link between logic and culture which cannot be ignored. This link manifests itself as culturally bound restrictions on logic, rather than as the influence of logical thought upon culture. Therefore, any logical tradition can only be understood within the framework of the history and culture which produced it. The Chinese logical tradition is no exception to this rule: if we want to understand the Chinese method of analogisms, our interpretations must take into account the specific social and cultural circumstances of the pre-Qin era, during which the foundations of specific Chinese logical thought were established. (Cui and Zhang 2005, 29)

Thinking through Relations

It is a long held truism, that the ability to evaluate the perceptual similarity between stimuli is the *sine qua non* of biological cognition which underlies nearly every cognitive process, from stimulus generalization and Pavlovian conditioning to object recognition, conceptualization, categorization and inductive reasoning. Regardless of our individual and cultural backgrounds, we are not only able to evaluate the similarity between objects based on perceptual congruencies, i.e. recognizing when two physical stimuli are perceptually similar, but can also understand when two ideas, mental states, grammatical constructions or causal-logical relations are similar as well. Even pre-school aged children understand that the relation between a bird and its nest is similar to the relation between a dog and its doghouse, even though there is little "surface" or

"object" similarity between the constituents of this relation (Penn etc. 2008, 111).

Analogical inferences[5] are based upon the premise that reality is an organic whole composed of mutually interconnected parts which have identical or similar attributes, functions and mutually compatible structures. Analogical inferences pertain to fundamental types of deductive inferences and are an important cognitive tool that can be used to present scientific hypotheses. Structure is essential for analogical inferences, because similar cognitive methods follow a thought process by which a known aspect or segment of reality forms a model that can be applied in order to recognize another unknown aspect or segment of that same reality, by linking them through identical properties or structure[6]. In this case, analogy depends on the mapping or alignment of elements in the source and target. The mapping not only regards objects, but also relations among objects and relations among relations. The full mapping produces the designation of a predicate or a relation to the target.

> Computational models of analogy emphasize the role of structural parallels between relations in the source and target. The importance of formal structure provided the basis for Gernet's (1983) structure mapping theory, which has been implemented in the structure mapping engine. (Lee and Holyoak 2008, 1112)

Specific Features of the Chinese Model

Given our main thesis that the Chinese epistemological tradition is defined by structural perception and reasoning, it is hardly surprising that

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[5] Lat.: ratiocinatio per analogiam

[6] A historical example of the structural compatibility that defines such inferences can be found in the designing of the first atom models in Europe in the early 20th century. These models were based on the assumption that electrons with a negative charge were moving in circular or elliptical orbits around the atomic core, which had a positive charge. Every atom could therefore be described as a kind of microcosmic solar system. This supposition was based on analogical inference (Elliot 1999, 34). Coulomb's Law which states that the magnitude of the electrostatic force between two points of electrical charges is directly proportional to the product of the magnitudes of each of the charges and inversely proportional to the square of the distance between the two charges, is structurally related to Newton's law of gravitation, which is linked in turn to Kepler's law of planetary motion.