

《特稿》

傳統中國的知識論 ——心與外界的結構一致性

羅亞娜

摘要

我們可將傳統中國的知識論述稱為「結構知識論」或「關係知識論」，因為這些論述所指稱的主體是各種「關係」，而在關係之中形成一個相對的固定結構。本文討論中國理解事物的結構性方法。此法在古代中國就已發展得很詳盡，它建立於外在世界與人心的結構一致性，被視為人類理解的先決條件；而意識和外界的結構組成，是以代表傳統中國的結構概念的「理」字來指稱。

關鍵字：中國知識論、理、結構、結構一致性

* 羅亞娜現職為斯洛文尼亞·盧布爾雅納大學亞非學系系主任

Traditional Chinese Epistemology: The Structural Compatibility of Mind and External World

Jana S. Rošker

Abstract

Traditional Chinese theories of knowledge can be called structural or relational epistemologies, because the subject they refer to are relations, forming a relative fixed structure. The present article shows that in China, the structural approach to comprehension had already been elaborated in ancient times. It has been developed as an epistemological model that arises out of the compatibility between the structures of the external world and those of the human mind. Such structural compatibility has been seen as the basic precondition of human perception. The structural constitution of consciousness on the one, and of external world on the other side, has been expressed by the term li 理, which functioned as the traditional Chinese concept of structure.

Keywords: Chinese epistemology, the concept li 理, structure,
structural compatibility

* Jana S. Rošker, PhD, Professor of Sinology and Head of the Department of Asian and African Studies, Ljubljana University, Slovenia

1. The concept li 理 as structure or structural pattern

The theoretical foundations of such structural model of comprehension were developed within the specifically Chinese tradition of thought. In China, the structural approach to comprehension had already been elaborated in ancient times. This basic model arises out of the compatibility between the structures of the external world and those of the human mind (Rošker 2008:305ff). This structural compatibility has been seen as the basic precondition of human perception. The structural nature of consciousness on the one, and external world on the other side, has been expressed by the term li 理, which functioned as the traditional Chinese concept of structure.

While interpreting the notion li 理 to mean ‘structure’ may seem highly unusual, there are several good reasons for doing so.¹ Although the term li has been mostly translated as principle or idea, such translations were products of misunderstandings that were rooted in deficient comprehension of the problems of cultural incommensurability.²

In essence, li manifests a notion of structure, of a structural pattern and the structural order of things respectively. This meaning is already apparent in the original etymology of the character li 理, which is composed of the phonetic element 裡 and the radical 玉 that designates jade. Li is the patterned arrangement of parts in a structured whole, of things in an ordered cosmos and also the structure of thought in rational discourse. Originally it denoted the lines or colored stripes in jade (Bauer 2000: 256-257). Its emergence in the Sung Dynasty (A.D. 960-1279) as one of the central concepts of neo-Confucianism was the culmination of a long development (Graham 1978: 191-2). In the

¹ In the long lasting, complex and multilayered development of Chinese philosophy, this notion naturally underwent many semantic alternations. In spite of these alternations that included many different semantic connotations of the term, the present article aims to draw attention to the basic, i.e. structural or relational aspect of this semantic scope, because the consideration of this fundamental approach could contribute to new possibilities of the understanding and re-reading traditional Chinese thought.

² This term refers to the inability of transferring certain theoretical concepts from one cultural tradition (or from one socio-cultural context) into the other.

earliest sources, li has been understood as a visual structure, as it becomes visible in the course of lines in jade.³In the pre-Han philosophy it attracts attention especially in the *Interpreting Laozi* of Han Feizi, who uses it to mean the specific configuration of properties in each kind of thing:

We call li that which is long or short, square or round, hard or soft,
heavy or light, white or black.

(*Hanfeizi*, “Jie Lao”, CTP IV/1)

(短長，方圓，堅脆，輕重，白黑之謂理。)

In this context, the structure seems to be perceived as something, which is composed by the integrity of all sensually perceivable features (length, color, consistency, weight, form) together. If we want to cultivate any object, we have therefore to follow its inherent structure. Whenever the character li appears in verbal function, it means the process of ordering of certain things and phenomena respectively. In the process of development and several semantic elaborations, this term has originally appeared as expression of the cosmic, then of the social structure; later on, its semantic connotations also implied the structure of language and meaning and at last, the structure of mind and consciousness respectively. All these particular, specific kinds of structural patterns have been in Chinese tradition, especially from the Song 宋 (960-1279) Dynasty on, unified in a single, general and basic rational structure, which has been distinguished by its fundamental compatibility with innumerable kinds of different structural patterns. This unification of particular, specific structural patterns into one single, most general and basic structure, has only become possible through the process of semantic abstraction of the term li. This was a process of abstraction, which lasted several centuries and which has to be seen in the wider context of general changes of Chinese society and culture. As such, it was in the practical sense defined by the political and economic development of traditional China, and in the ideological sense by formalization of Confucianism in its role of the state doctrine, by new approaches, established in Neo-Confucian philosophies, as well

³ Xunzi 荀子 defines it in a following way: Form, color and structure can be distinguished with eyes (*Xunzi*, “Zhengming”, DC 2008: 9). (形體色理以目異。)

as by certain elements of Buddhist philosophy. The gradual abstraction of the concept li can be shortly summarized in three phases:

- a) the phase of ontologization (li as the cosmic structure or as the structure of nature and society),
- b) the phase of structural semantic (li as the structure of language and meaning) and
- c) the phase of epistemologization (li as the mutual compatible structure of external word and mind).

2. Cosmic and social structure

Already the earliest comments to the *Book of Changes* (*Zhou Yi* 周易) describe this book as a work, which helps people to understand and to make use of the basic cosmic structure.

The *Book of Changes* is simple, and yet it embraces the structure of everything that exists.

(*Zhouyi*, v: *Yijing*, “Xi Ci”, 2006: 34)

(易簡而天下之理得矣)

Let us quote two further examples of such interpretation of the concept li from ancient Chinese sources:

Sun and moon are connected by the same light, and heaven and earth by the same structure.

(*Guanzi*, “Xinshu xia”, CTP IV/6)

(日月之與同光，天地之與同理。)

When things come into being, their structure is born. This is what we call form.

(*Zhuangzi*, “Tiandi pian”, CTP III/1)

(物成生理謂之形)

The majority of ancient and middle age Confucians applied the term li in social order or in the sense of ordering the society.

As a rule, from antiquity to the present day, what the world has called good is what is correct, in accord with the structure, peaceful, and well-ordered.

(*Xunzi*, “Xing e”, 12, CTP I/4)

(凡古今天下之所謂善者，正理平治也。)

In verbal function, *li* in this sense could also mean “to order” (in accordance with the right structure). Here an example from Gongsun Long:

Let’s assume a ruler who wants to order his state (in accordance with the correct social structure). He punishes people who committed crimes, but also those who didn’t commit crimes. He rewards people who deserved a reward, but also those who didn’t deserve any reward. And then he complains that the society is not ordered (in accordance with the right structure). Is this right?

(Gongsun Long, “Yifu”, CTP V/1, 2009)

(今有人君，將理其國，人有非，則非之。無非，則亦非之。有功，則賞之。無功，則亦賞之。而怨人之不理也，可乎？)

3. The structure of language and meaning

First interpretations, in which the term *li* was perceived as an abstract structure of language, can be found in the works of later Moists. In chapter *Daqu* of the Moist canon, which is mainly investigating definitions of various central notions, we come across the following note:

Phrases originate from reasons, they grow in accordance with structure and move in accordance with categories.

(Mo Di, 11. “*Daqu*” 44, 2000: 172)

(夫辭以故生，以理長，以類行也者。)

The viewpoint, according to which the relation between reality and its naming or its conceptual perception was defined by an unified structure has already been advocated by some earlier philosophers, as for example by the representative of the School of Names *Dengxizi* from the 6th Century BC, who wrote:

First we have to look at the appearance of an object, and to perceive its external form. The correct concept of the object can be defined by following its structure.

(Deng Xi, "Wuhou pian", 1976: 35)

(故見其象，致其形，循其理，正其名)

According to him, this unified structure represented the natural linkage between concept or names and realities. This presumption is clearly visible in his definition of the dialectics (bianzhe 辯者):

The dialectics explain the lines of demarcation between true and false, they define the borders between order and chaos, they explain the points of identity and difference and they explore the structure of concepts and realities.

(ibid, 45, 1976: 173)

(夫辯者，將以明是非之分，審治亂之紀，明同異之處，察名實之理。)

Dong Zhongshu also dealt with the question of the structure of names or concepts. He wrote:

Concepts are the crucial element of the great structure. If we apply the meaning of this crucial element in dealing with corresponding matters, we will be able to seize (the difference between) true and false. The difference between congruency and discordancy will become obvious. All this will enable us to comprehend their connection with heaven and earth... If we deal with all matters in accordance with their concepts, which are congruent with nature, the borderline between men and nature will disappear. So men will unite with nature and so they will be congruent with the structure.

(Dong Zhongshu, *Chunqiu fanlu*, "Shencha minghao", CTP VIII/2)

(名者，大理之首章也，錄其首章之意，以窺其中之事，則是非可知，逆順自著，其幾通於天地矣。……是故事各順於名，名各順於天，天人之際，合而為一，同而通理。)

In their disputes on names (concepts) and realities,⁴ the classical philosophers from the pre-Qin and the early Han era still arose from the realist understanding of reality as objective external world or external form of things. This form was perceived as a direct part of the structure of things, as has been manifested in the ancient concept *li*. The structure (*li*) of meaning, which cannot be encountered before the period of the Six Dynasties, however, was not anymore something directly connected with things or something, forming a part of them. In this concept, we can already witness a first result of a certain abstraction grade of the notion structure (*li*). The representatives of the School of Mystery (玄學) modified the ancient disputes on the relation between names (concepts) and realities into investigations of the relation between language (*yan* 言) and meaning (*yi* 意). They were primarily interested in the research in the structure of concepts or names (*ming li* 名理). This was one of the most important theoretical shifts in the history of traditional Chinese thought (Tang Junyi 1955: 65). It can be asserted, that their treatises on the structure of names or concepts (名理), i.e. their studies on the relation between language and meaning represent the basis of the specific Chinese structural semantics and at the same time the theoretical elaboration of ancient disputes on the relation between names (concepts) and realities. As a matter of fact, the central issues of the philosophers from this period, who mostly belonged to the before mentioned School of Mystery or to the group of Pure Conversations (清談), i.e. the debates on the structure of concepts (名理) and on the structure of meaning (意理) can be seen as germs of a structural semantic, as has been developed by Western linguistic discourses more than one and half millenniums later.

These discourses arose from the presumption, according to which the meaning of a particular word was formed with regard to its relations to other words. In this sense, they have theoretically elaborated the tradition of ancient Chinese writings, which were based upon semantic parallelisms and upon the specific Chinese structure of analogous thought. In this way, traditional Chinese discourses were determined by a specific textual style, in which the structure of meaning was based upon contents and mutual relations of word fields.

⁴ 名——實。

This basic presumption of structural connections between language and reality can also be observed in the works of the early Neo-Confucians:

Nature is structured;⁵its spirit impregnates in a mysterious way everything that exists and can express it with language.

(Cheng Hao/Yi, *Er Cheng ji* IV, “Sui Yan”, 1981: 1179)

(天者理也，神者妙萬物，而為言者也。)

4. Compatibility of internal and external structures as the precondition of perception

The discourses of conceptual structure, as have been investigated by members of the School of Mystery and especially by the members of the group Pure Conversations (清談), were not limited exclusively to the semantic structure of language or human speech in the narrow sense; they have also been focused upon other questions, regarding the problems of transmission and communication between the external and the internal word. In this context, we have to mention Ji Kang⁶ who followed the presumption, according to which Mind and structure are mutually congruent.

(Ji Kang, CTP 2009).

(心與理相順)

Ji Kang has namely already presupposed a kind of compatibility between human awareness and the structure of external word. This basic presumption is also clear in his treatise on the sounds (*Sheng wu aile lun* 聲無哀樂論), in which he argues that sounds as such don't imply any feelings, although by listening to them, people can feel sadness or joy. Several contemporaries of this philosopher have advocated the opposite position and argued that feelings might be latently present already in the very sounds or in the structure of music. As Tang Junyi points out, the central issue in both cases was the connection (or relation)

⁵ For a detailed explanation of the proposed adjectival translation (li = structured) see Rošker, 2011: 59

⁶ 221 - 262

of two structures (li), namely the structure of the external world and the structure of human inwardness. Irrespective of the diametrical contrariety of their concrete theses, the advocates, as well as the opponents of Ji Kang's theory, arose from the supposition, according to which certain successions or patterns of sounds (the rhythmical and tonal structure of music) could awake certain feelings in human consciousness. This becomes possible, because not only music, but also feelings (as a part of mind or consciousness) are structured.

Later philosophers, for example Lu Jiuyuan, also followed the same presumption. He wrote:

The mind is structure(d).⁷

(Lu Jiuyuan, in Xia Zhentao, 1996: 157)

(心即理也。)

The question of compatibility between the structure of mind and the external world has also been emphasized by Zhu Xi:

Mind is that, which is guiding, but this guidance is structured. There is no structure outside the mind, nor a mind outside the structure.

(Zhu Xi, 2000:214)

(心固是主宰底意，然所謂主宰者，即是理也，不是心外別有箇理，理外別有箇心。)

In the Neo-Confucian discourses, the comprehension of objects through their structural relation with human mind has already represented an important epistemological method. With regard to human mind and the theory of knowledge, liang zhi 良知 (inborn, original knowledge) was seen as an element of the inborn mind, which was already ordered in accordance with the structure of nature. This concept was especially strongly emphasized by represents of the idealistic current within Neo-Confucianism, namely by the members of the School of Mind (心學).⁸

⁷ For a detailed explanation of the proposed adjectival translation (li = structured) see Rošker, 2011: 59, 113

⁸ Ibid.

The original knowledge of my mind is (congruent with) the so-called structure of nature.

(Wang Shouren, *Chuanxi lu zhong*, “Da Lu Yuanjing shu”, 1933: 57)

(吾心之良知，即所謂天理)

The structural determination of our mind has also been presupposed by most of the later Chinese philosophers. The compatibility of inner and external world was emphasized even by epistemologists as Dai Zhen,⁹ one of the most important, very realistically oriented philosophers from the 18th Century, who belonged to the last representatives of relatively autochthonous¹⁰ Chinese epistemology.

The physical appearances arise from nature and are therefore always congruent with it. What is surrounding us, are sounds, colors, scents and tastes. Sounds, colors, scents and tastes are perceived by everyone. What makes this mutual congruency between outside and inside possible, are the receptors, known as ears, eyes, nose and mouth.

(Dai Zhen, *Mengzi ziyi*, 1991: 157 - 158).

(人物受形於天地，故恒與之相通。盈天地之間，有聲也，有色也，有臭也，有味也，舉聲色臭味，則於天地間者無或遺矣。外內相通，其開竊也，是為耳目鼻口。)

This structural overlapping, however, is not only reflected in human sense organs, but also in human mind. The subject here is by no means a concept of holistic identity, as has been much too often ascribed to classical Chinese world view, but a structural connection between human inwardness and the external world, which, according to Dai Zhen, exists separately and independently of our consciousness.

⁹ 1724 - 1777

¹⁰ Here, the phrase “relatively autochthonous” refers to Chinese philosophy, which came into being before the influence of European and American thought. As Buddhist thought has been integrated into Chinese philosophy almost one and half centuries before that, its implicit and explicit influences can be regarded as part of traditional Chinese thought.

5. Conclusion

Although since the impact of the Western thought upon China the Chinese term *li* as well as most of the compound words, resulting from it, have been most commonly associated with the notion of an ideal principle or law, this modern semantic complex can not be mixed up with the traditional semantic connotations of the word *li*.

As we have seen, the concept *li* traditionally manifested a notion of structure, of a structural pattern and the structural order of things respectively. As a whole, *li* represents a cosmic pattern, defining lines of movement or dynamics of men and nature. These structural lines are seen as relations, defining the sphere of ideas and the sphere of phenomena. Simultaneously, they make possible the mutual adjustment of binary oppositions with complementary functions and also their well ordered fusion with the cosmic unity.

The *li* is not obeyed or defied like a law, one goes either with or against the grain of it, as in chopping wood. Le Gall translated it by *forme*, thus by the choice of two words remolding the whole neo-Confucian cosmology after the analogy of Aristotelian form and matter. J. Percy Bruce chose for his equivalent 'law', and so incorporated into the neo-Confucian terminology itself the wrong answer to the question 'Are there laws of nature in China?' (Graham 1992: 61).

In the context of traditional Chinese theory of knowledge, this structural compatibility represents the very potential, which enables us to perceive and to comprehend the external world. The omnipresence of *li* means that the universe is structured and ordered. The very same structural order, however, is simultaneously also a quality of our mind and body (e.g. of our perception organs). Our thoughts, also, can follow the same structured order (especially when we try to achieve any real insight into the actual nature of reality). In this sense, it could be - considering various multifarious translations of the term *li* in Indo-European languages - presupposed, that the translation of this term in the sense of the ancient Greek term *logos* (Ladstätter 1983: 34) might be the closest to the meaning of what *li* is actual referring to, since it means a structure, ordered in accordance to cosmic rationality, which is also reflected in human mind as reason. This notion, however,

still cannot by far cover the entire semantic specter of the term *li*, which, beside epistemological and ontological aspects, also contains a variety of other (physical, naturalistic, metaphysical, artistic, cultural, medical etc.) connotations. Even presently, the concept *li* has still mostly been translated into Indo-European languages as reason, principle or law, although such connotations, as we have seen before, are far beyond the original meaning of this notion. The tradition of such an understanding of the concept *li* has been preserved in sinology till the present day. Such understanding has not only decisively influenced the “Western” comprehension of the basic nature of Chinese theoretical discourses, but has-through modernization processes-also formed the way, through which Chinese tradition of thought has been understood by most of the modern Chinese theoreticians.

The understanding of the term *li* as a basic structural pattern, which enables human perception, is also quite interesting in the light of comparative epistemology. From the mid-20th Century onwards, structuralism has become a leading theoretical current in “Western” theories. This holds true for natural sciences as well as for humanities and social sciences. Structuralism represents a complex category, which spans a wide range of different programs and methods that enable us to perceive and interpret patterns of relations as a basic paradigm of reality. The majority of structuralist theories (including post-structuralism, de-constructivism, post-modernity etc), is focused upon the structural approach to recognition, perception and interpretation of reality, in which no object can appear in isolation from the others. In this sense, objects can only exist as parts of structures that connect them to other entities. Such discourses are always concentrated upon a structure, which therefore determines every objective status and-in its last consequence-also every being as such.

Naturally, these discourses could not avoid investigating certain epistemological questions, such as that of the relation between subject and object (or the Self and the Other), or the relation between perception, comprehension and interpretation or transmission. The Euro-American theoretical production of the 20th Century has generated a number of elements which, based especially on new, fundamental theoretical approaches to the philosophy of language, led to some important cognitive shifts in the humanities, and in the cultural and social sciences. However,

such recognitions notwithstanding, Western discourses have yet to produce an integral and coherent structural model for epistemology.

In this context, etymological studies and studies of semantic development of the Chinese concept of structure, together with contrastive analyses of traditional Chinese and Euro-American theories can (despite of the general questionableness of such intercultural comparisons) prove itself to be a reasonable tool for clarifying some basic questions on the nature of human perception and recognition of reality.

【責任編校：林雅芸】

SOURCES AND LITERATURE

Bauer, Wolfgang. *Geschichte der chinesischen Philosophie*. München: Verlag C.H.Beck, 2000.

Buljan, Ivana. “Filozofijske dimenzije kineske gimnastike(daoyin xingqi 導引行氣)”. In: *Filozofska istraživanja* (2009), 115/29, p. 485-503

戴震 Dai Zhe. 《戴震全集》 *Collected Works of Dai Zhen*. (Ed.by: 戴震研究會 Dai Zhen Yanjiu hui). Beijing: Qinghua daxue chubanshe ,1991.

數位經典 DC (Digital Classics); <http://www.chineseclassic.com/>,01.07.2009

CTP：中國哲學書電子化計劃 Chinese Text Project. <http://chinese.dsturgeon.net/text.pl?node=3925&if=en>, 01.07.2009

程顥 Cheng Hao、程頤 Cheng Yi. 《二程集》 *The Collected Works of the two Chengs*, 4 Vol. Beijing: Zhonghua shuju, 1981.

鄧析 Deng Xi.鄧析子 *Master Deng Xi*. Haerbin: Heilongjiang chubanshe,1976.

馮契 Feng Qi.《認識世界和認識自己》*Knowing the world and oneself*, in: 《智慧說三篇》 *Zhihui shuo san pian*, Part 1. Shanghai: Huadong shifan daxue chubanshe, 1996

馮友蘭 Feng Youlan :《新理學》 *The New Metaphysics*, in: 《二十世紀經典文本》 *Ershi shiji jingdian wenben*. (Ed. by: 俞吾金 Yu Wujin, 吳曉明 Wu Shaoming). Shanghai: Fudan daxue chubanshe, 1999. str. 544-575.

Graham, A.C. *Later Mohist Logic, Ethics and Science*. Hong Kong: The Chinese University Press, 1978.

- Graham, A.C. *Disputers of the Tao Philosophical Argument in Ancient China*. Chicago: Open Court Publishing, 1989.
- Graham, A.C. *Unreason within Reason - Essays on the Outskirt of Rationality*. Lasalle, Illinois: Open Court Publishing, 1992.
- Ladstätter, Otto; Linhard, Siegfried. *China und Japan - die Kulturen Ostasiens*, Wien: Rohwolt, 1983.
- 墨翟 Mo Di. 《墨子》 *Master Mo*. (Ed. and comm. by: 孫波 Sun Bo). Beijing: Huaxia chubanshe, 2000.
- 牟宗三 Mou Zongsan. 《牟宗三先生全集》 *Collected Works of Sir Mou Zongsan*, Part 32. (Ed. by: 李明輝 Li Minghui). Taipei: Lianhe bao chubanshe, 2003
- Rošker, Jana S. *Searching for the Way - Theory of Knowledge in Premodern and Modern China*. Hong Kong: Chinese University Press, 2008.
- Rošker, Jana S. Li: Struktura kot temeljna epistemološka paradigm tradicionalne kitajske filozofije, Ljubljana: ZIFF, 2011.
- 覃嗣同 Tan Sitong. 《仁學》 *A Treatise on Humanity*. Taipei: Da shu shuju, 1958.
- 唐君毅 Tang Junyi. 〈論中國哲學思想中「理」之六意〉“On the six Meanings of the word ‘li’ in Chinese Philosophical thought.” in: 《新亞學刊》 *Xin Ya xuekan*, I-1 (1955): 45-160
- 王守仁 Wang Shouren. 《王文成公全書》 *The Entire Collection of the Works of Sir Wang Wencheng*. Shanghai: Shangwu yinshuguan, 1933.
- 夏甄陶 Xia Zhentao. 《中國認識論思想史稿》(上) *An Outline of the History of Chinese Epistemology Part 1*. Beijing: Zhongguo renmin daxue chubanshe, 1996.
- 夏甄陶 Xia Zhentao. 《中國認識論思想史稿》(下) *An Outline of the History of Chinese Epistemology Part 2*. Beijing: Zhongguo renmin daxue chubanshe, 1996.
- 熊十力 Xiong Shili. 《熊十力論著集之一》 *Collected Works of Xiong Shili, Part 1: Xin weishi lun*, Beijing: Zhonghua shuju, 1992.
- 《易經》 *Yi jing (The Book of Changes)*, in: 《易經我讀》 *Yijing wo du*, (Ed. and comm. by: 林觥順 Lin Guangshun). Taipei: Shugan yeshu, 2006.
- 張東蓀 Zhang Dongsun. 《認識論》 *Epistemology*. Shanghai: Shanghai shijie shuju, 1934.

張東蓀 Zhang Dongsun. 《知識與文化》 *Knowledge and Culture*. Beijing: Zhongguo guangbo dianshi chubanshe, 1995.

張耀南 Zhang Yaonan. 〈從二十世紀中國哲學看張東蓀之「架構論」〉“Zhang Dongsuns ‘structural theory’ from the viewpoint of the 20th Century Chinese Philosophy”, in: 《學術界》 *Xueshu jie*, 81:2 (2000:2): 143-150.

張載 Zhang Zai. 《正蒙》 *Correction of Ignorance*, in: 《性理大全》 *Xingli da quan*, Vol. 4, in: 《孔子文化大全》 *Kongzi wenhua da quan*, (Ed. by: 胡廣 Hu Guang). Jinan: Shandong youyi shushe, 1989.

朱熹 Zhu Xi. 《朱子近思錄》 *The Records of Master Zhu for contemporary Reflection*. (Selected and ed. by: 呂祖謙 Lü Zuqian). Shanghai: Shanghai guji chubanshe, 2000.