

# Classical Chinese Logic

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## Abstract

The present article provides an introduction to classical Chinese logic, a term which refers to ancient discourses that were developed before the arrival of significant external influences and which flourished in China until the first unification of China, during the Qin Dynasty (221 BC). Taking as its premise that logic implies both universal and culturally conditioned elements, the author describes the historical background of Chinese logic, the main schools of Chinese logical thought, the current state of research in this area and the crucial concepts and methods applied in classical Chinese logic. The close link between Chinese logic and the Chinese language is also stressed.

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## 1. Introduction

Is logic a universal discipline, which means there is only one kind of logic? Or is it culturally conditioned, with many different logical systems? The answer depends on how we define logical reasoning. If we follow the narrow definition, which identifies or equates logic with the logical concepts, categories and methods that were developed in what we can call the Aristotelian or Stoic tradition, we could conclude that in traditional and pre-modern China, there was no logic.<sup>1</sup> But if logic is instead understood as a rational form of reasoning focused on valid argumentation and its principles, many different approaches are possible. Furthermore, like human language, logical propositions imply both universal as well as culturally conditioned elements. While the ability to express the perceived reality by means of linguistic terms and structures is one of the most basic and distinctive features of humanity, this common feature has evolved in countless different ways in different cultures, with each distinct language emphasizing different patterns of reasoning.

In China, logical reasoning was closely connected to language, especially with respect to semantic issues, and was determined by its tight relation to ethics (e.g. Mozi, *Jing xia*, 155). However, this does not mean that in classical texts which are not immediately identifiable with metaphysical and ethical discourses, there were not also forms of logical and methodological thought. Although Chinese philosophy developed in connection with ethical ideas and metaphysical concepts, there was a close relationship between moral and metaphysical thought on the one hand, and logical reasoning on the other.<sup>2</sup>

Classical Chinese logical thought never elaborated any explicitly systematic and comprehensive formulation of the laws of reason, nor did it produce a coherent system of symbolism for abstract reasoning. Prior to the 18th and early 19th centuries, Chinese thinkers had rarely encountered a systematic and well-formulated logical work. But as Cheng Chung-Ying (1965, 196) points out, this does not mean that classical Chinese thought lacked logical depth or consistency.

## 2. Historical Background

The origins of Chinese logic can be traced back to the earliest known works, such as the *Book of Changes* (*Yi jing*), which dates from the seventh century BC, while its main development

occurred during the so-called ‘Golden Age of Chinese philosophy’, in the Warring States (*Zhan guo*) period (475–221 BC). This period gave rise to the ‘Hundred Schools of Thought’, which includes the most influential philosophical discourses, i.e. Confucianism, Mohism, Daoism and Legalism. This was a time of extraordinary intellectual development which was conditioned by the political chaos and constant armed conflict among the warring states. This period ended with the first unification of China and the rise of the totalitarian Qin Dynasty (221–206 BC). Traditional or classical Chinese logic generally refers to the logical thought that was developed during this era (Chmielewski, 88). These discourses were developed without external influences. However, Chinese logicians were part of a small subculture, whereas in India and Europe, logicians belonged to the mainstream of intellectual development (Harbsmeier 1988, 7).

In ancient China, logical themes appear in various philosophical works, such as the *Book of Changes*, the oldest known Chinese philosophical text, and later, in a number of works by Confucius and his successors (Wang Shuren 2009, 1).

In this period, questions such as the relation between concepts or names (*ming*) and realities or objects (*shi*), the criteria of identity (*tong*) and difference (*yi*), or the standards of right/true (*shi*) and wrong/false (*fei*) formed the objects of inquiry across the entire philosophical spectrum, regardless of ideological orientation (Kurtz, 3). The Chinese interest in logical problems grew out of the methodology of debates or disputations.<sup>3</sup> The earliest evidence of this interest is found among the so-called ‘dialecticians’ or ‘debaters’ (*bianzhe*) whose discourses dealt primarily with theories of names (*mingxue*), which led to their becoming known as the ‘School of Names’ (Ming jia). The leading figures in this heterogeneous current were Hui Shi (ca. 370–310 BC), who formulated ten paradoxes on the infinity of time and space, and Gongsun Long (ca. 320–250 BC), who was famous for the logical defense of his *White horse paradox*, which claimed that ‘white horses were not horses’ (*Bai ma fei ma*). These discourses made important contributions to logic, together with the works of the ‘Later Mohists’ (*Houqi Mojia*), who elaborated theories of argumentation (*bianxue*). They represented a current of the school of Mo Di, whose teachings were collected in the *Mozi* which includes a series of brief definitions and explanations outlining procedures for determining the validity of conflicting assertions, a theory of description and an inventory of ‘acceptable’ (*ke*) links between consecutive statements.

The Confucians also made important contributions to logical thought in ancient China. For example, already in the *Analecets*, which was compiled by Confucius’ disciples, we come across a passage dealing with the so-called *Theory of Proper Names* (*Zheng ming lun*), which elaborates on the proper relation between names or concepts and (social) reality.

One of Confucius’ most famous followers, the philosopher Xunzi (ca. 313–238 BC), appropriated the Late Mohist logical findings in order to defend the Confucian ideals of state and society. His Legalist disciple, Han Feizi (ca. 280–233 BC), who formulated the totalitarian ideology which brought the golden age of Chinese philosophical and logical reasoning to a close after the unification by the Qin, in 221 BC, instead relied on ‘names and disputation’ (*ming bian*).

### 3. Concepts and Methods

The classical Chinese logicians did not use a unique term that corresponds to the English concept of ‘true’ (Graham 1970, 39). According to Hansen (1985, 515), they neither focused on a distinct notion of semantic truth (Hansen 1985, 515).<sup>4</sup> A name or complex of names applied to an object either fit (*dang*) or erred (*guo*), while the validity of certain judgments was expressed by the term ‘assertible’ (*ke*). The terms ‘so’ (*ran*) and ‘not so’ (*bu ran*) were also frequently used to indicate that a predicate for something was true. While Chinese logicians did not use any distinct and explicit concept of truth-functional contradiction, they often applied paradoxes (e.g. ‘going

to Yue today and arriving there yesterday', Zhuangzi, Qiwu lun, 4) to expose the relativist nature of reality and thus reveal unorthodox redefinitions of important terms in order to influence people's behavior and their values (De Reu, 282). However, reconstructing the reasoning behind the paradoxes contained in classical works is still problematic and based mainly on indirect evidence.

The relation between names (concepts) and actualities (*ming, shi*) was one of the key notions developed by classical Chinese logicians, especially those belonging to the School of Names. Most of these philosophers were seeking a proper (or most rational) standardization (*chang*) of this relation, which was seen as a basic precondition for the unification of language and the establishment of legal norms.

The Later Mohist logicians were, instead, more interested in investigating the concept of kind (*lei*). They argued that classifying names were supposed to apply to kinds and not only attempted to determine rules for the correct use of classifying names, but also the principles governing the distinction between any two classifying names. This approach was based upon the following assumptions:

1. Each kind is determined by some properties which are crucial, being common to all the objects of that kind.
2. All objects belonging to the same kind are similar or the same. They called this 'the sameness/similarity of kind' (*leitong*), which can refer to relations between objects and kinds respectively. The sameness (or similarity) of two kinds is that which clearly distinguished them from other kinds and from objects which do not belong to them.<sup>5</sup>
3. Analogous to this view of sameness or similarity (*tong*), the Later Mohists also explored distinctions and differences (*yi*), focusing on 'distinctions or difference in kinds (*leiyi*)'. The demarcation line between distinction and difference (and, analogous, between sameness and similarity) has been established later in the Later Mohist commentaries from the fourth century, in which they differentiate between similarity (*tong*) and distinction (*yi*) on the one hand, and sameness (*zhi tong*) and difference (*zhi yi*) on the other (Mo bian zhu xu, 2).

Together with the concepts of evidence (*gu*)<sup>6</sup> and structural principles (*li*), kind (*lei*) forms one of the three basic components of any thought pattern.

Propositions and logical constants also constitute important themes in classical Chinese logic. While the former (*ci*) are used to elucidate ideas or meanings (*yi*), logical constants<sup>7</sup> were applied to indicate different types of propositions in the language (Liu and Yang, 110).

One of the most important issues in Later Mohist thought concerned the concept of 'hard-white' (*jian bai*). This was a technical term for the relation between two things or two features of a thing that are inseparable and 'mutually pervasive', in the sense that they completely coincide throughout the same spatial extension (Fraser 2012b, 2.2). The paradigm for this notion is the hardness and whiteness of a completely white stone.

The Mohists have also developed a concept of dimensionlessness (*wu hou*), although it was seldom applied. According to the Mohists, something which is 'dimensionless' does not 'fill' anything (Mozi Jing shuo shang, 66). The dimensionless tip of a solid object (*duan*) was used to clearly distinguish different bases or 'starting points' for using a term. Thus, a 'starting point' or 'tip' (*duan*) is the basis for a distinct way of using a general term<sup>8</sup> (Fraser 2013a, 17).

Because it was based on kind-based inference patterns, Chinese logic was essentially analogical and was rooted in semantic theory and an epistemology centered on drawing distinctions (Cui and Zhang, 27). Reasoning and argumentation were not elaborated by means of syllogisms or premises–conclusion arguments. Instead, ancient Chinese logicians were concerned with how certain procedures for distinguishing or predicating terms normatively required making additional analogous distinctions or predications. Inferences were generally understood as the act

of predicating the particular terms of something, as a consequence of having distinguished that thing as similar to a model for the kind (*lei*) of thing denoted by that term (Fraser 2013b, 1). Inference is thus an act, or a sequence of acts, based on the recognition of structural patterns. The idea of structure (*li*) is essential for such analogical inferences, given that 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, thereby linking them through a structure of identical properties. In this framework, analogy depends on the mapping or alignment of elements in the source and target. The mapping not only regards objects, but also relations among both objects and relations.

The Chinese model of analogical inferences differs in many respects from the Greek or Indian models.<sup>9</sup> Formal logic seeks to distinguish between general forms of cognitive processes, and the object of investigation. Instead, Chinese logicians were less interested in defining general abstract formulas of propositions and analogies, than in creating semantic (rather than formal) structures, which they then tried to define by means of descriptive explanations and practical examples. However, the Later Mohist School and the School of Names were much more analytical in their approaches than either Confucianism or Daoism, in the sense that they tended to proto-theorize their philosophical arguments with an analytical language.

This focus on contents rather than form in ancient Chinese logic led to the classification of analogisms into four main types, which the Later Mohists named '*pi*', '*mo*', '*yuan*' and '*tui*'. While the *pi* type was based on explanation by example, the *mo* type referred to deduction from a parallel series of words, phrases or sentences ('*ci*').<sup>10</sup> The *yuan* type was instead based upon potentially similar views and the *tui* type on agreement with certain views through the negation of contrary views. All these types were based upon descriptive methods. According to Fung Yiu-Ming (341), their expressions relied on the 'material mode of speech'.

In ancient China, this attention to contents led to fundamental peculiarities in the development of inferences. The structural systematization which defines the general (i.e. traditional European) model of analogical inferences dictates a proposition by which certain relations necessarily imply other relations, regardless of the concrete domain or context (Holyoak, 150). Instead, the Chinese analogical method also distinguishes within this general model between different types of inferences with respect to the semantic and axiological elements of the relations they include. Thus, in the Chinese model, the validity or non-validity of analogical inferences also depends on the valuation of both preceding propositions.

To illustrate this difference, let us take two inferences with exactly the same formal structure, but where the first one is valid, while the second is not: 'Huo is a human being; caring for Huo is caring for a human being.' (Mozi, Xiao qu, 4). The Mohists pointed out to a formally and structurally equivalent inference: 'Huo's parents are human beings; Huo serving his parents is not serving human beings.' (Mozi, Xiao qu, 5). Although both examples are structurally equivalent on the formal level, and their premises are doubtless true, for the later Mohists, the first inference was valid, while the second was not. According to Cui and Zhang (30), this is due to the fact that the former accorded with common sense, while the latter did not.

#### 4. Logic and Language

Most scholars agree that all these peculiarities were influenced by the specific structure of the classical Chinese language. Classical Chinese characters evolved in accordance with the ancient Chinese thought structure. This inevitably affected the development of Chinese logic, which was thus profoundly influenced by specific Chinese forms and representations (Shen Youding, 90). Most authors also agree that due to its specific structure, classical Chinese contributed greatly to the development and amplification of a system of logical reasoning,

which was far less formalized as, for instance the ones developed in ancient Greece. Because classical Chinese expressed meaning by differences in the word order and sentence structure, rather than by morphological changes, the generation and development of informal reasoning would be greatly influenced by these characteristics. Wang Kexi (30ff) has shown how the Chinese method of comprehension is a result of distinguishing meanings independently from the grammatical form. In order to grasp the meaning and the semantic construction of a Chinese sentence, it is necessary to analyze it within its context. This rather flexible understanding of Chinese determined the mode of informal thought. Chinese is a language without changes of location, case and form. Semantic differences are not expressed by morphological forms but depend on word order and sentential structures. Classical Chinese sentences cannot always be analyzed by the grammatical rules of the Indo-European languages, for they are based upon a different epistemological system (Wang Kexi, 32). Another important feature of classical Chinese is the lack of copula, since it developed other types of sentences to express judgments. A detailed examination of texts from the Warring States period (Wang Kexi, 30ff) shows that very few sentences have a structure that uses linking verbs and predicates.

In general, the interdependent and interconnected relation between language and logic is still a controversial, rather than a settled issue. Some scholars believe that the Chinese language has little impact on deep linguistic structures as elaborated by Chomsky (8) and hence it may have little impact on patterns of logical reasoning. However, Zhang Dongsun's (1886–1973) interpretations were tightly linked to this cognitive-linguistic, interconnectedness.<sup>11</sup> In his comparison between Indo-European languages and Chinese, he pointed out that the latter (especially ancient Chinese) made no clear distinction between subject and predicate, while in morphological terms it did not add suffixes to express time, gender or number (Zhang Dongsun, 360). Furthermore, in Chinese, the subject is not distinguished and thus, the predicate is not indicated either. The Chinese language also does not generally use sentential subjects, as opposed to Indo-European languages, which omit sentential subjects only in exceptional cases. Thus, the Chinese quite often omits the subject entirely, which implies that, for the Chinese speaker, the subject is not necessary (Zhang Dongsun, 363). Another difference is that Chinese lacks the equivalent of the expression 'it' or the form 'it is', which expresses the existence of something, but not its attributes. And yet this distinction is a basic precondition for forming the concept of substance. However, the most important difference Zhang identified was the lack of the expression 'to be' in Chinese, which means that it is difficult to form the subject–predicate propositions of 'standard' (i.e. Western) logic.

A.C. Graham (1986, 323) also stressed that the verb 'to be' was the origin of many metaphysical problems throughout the history of Western philosophy, for beyond its function as a copula, it implies an unchanging identity and existence.

Due to the absence of the linguistic (and thus also cognitive) category 'subject' and the absence of the expression 'to be' in both ancient and modern Chinese, traditional Chinese philosophy never established or developed the explicit, formally distinguished concept or discipline of ontology.<sup>12</sup> Because the ancient Chinese worldview was based on an implicit, dynamic and changeable structure of being, the classical Chinese philosophy never developed formal logic based upon fixed (static) theorems, or even the basic laws of traditional European logic, which meant that the Law of Identity was alien to Chinese thought. Zhang Dongsun concluded that Aristotelian logic, based upon the law of identity, developed the structure of dichotomies based upon contradictions of the type 'A and not-A'. Such relations were mutually exclusive (Zhang Dongsun, 364). But Chinese thought did not function in this way. Although it also applied dichotomies, their mutual relation was structured in a different way: in the thinking modes that have prevailed in China, dual oppositions<sup>13</sup> were seen as mutually defining and interdependent, guided by the underlying principle of complementarity or correlativity.<sup>14</sup>

The classification of the type 'A and B' makes it possible for something to be neither A nor B. Such non-exclusionary distinctions were quite common in Chinese logic.<sup>15</sup> Logical definitions in the Aristotelian sense are statements of identity, in which the symbol of identity connects the definiendum and the definiens. Jiang Xingyan (75) shows that, following ancient Chinese logic, the meaning of a word can be understood or clarified by looking at its opposite.<sup>16</sup> For this reason, definitions found in Western logic do not exist in Chinese logic. For example, a 'wife' is a 'woman who has a husband', and a 'husband' is a 'man, who has a wife'. This is not a strict definition in the received Aristotelian sense of the term, requiring genus and specific difference. The relational logic was based on relational propositions, just as Western logic was based on the proposition of the subject–object structure. The correlation between dual, but complementary oppositions (e.g. above–below and before–behind) thus represents a specific approach of ancient Chinese logic. The representatives of the Mohist School and the School of names expressed judgments by means of comparisons, causes, enumerations and explanations. Due to the absence of judgments structured by linking verbs and predicates in a strict sense, ancient Chinese scholars could not fully comprehend the concepts of generality and particularity. As opposed to Aristotelian logic, in which a concept is the predicate of its positive 'umbrella-concept', and the latter is the subject of the former, the ancient Chinese logicians preferred to explore 'resemblance' (analogies) and the characteristics of the concept of 'kind' (*lei*). However, the ancient Chinese concept of 'kind' was not limited to the division of the extension of concepts, but also included the resemblance between two events or actions. This also explains why in ancient China, logical analysis in the Aristotelian sense was underdeveloped and why analogism became the dominant type of classical Chinese logic.

The last few decades have seen a resurgence of interest in these issues on the part of contemporary Western and Chinese theorists. Chad Hansen (1983) offers a provocative and innovative theory regarding the nature of classical Chinese. He argues that the classical semantics of Chinese nouns resembles mass nouns. Thus, Chinese logicians tended to organize the objects of the external reality in a so-called 'stuff-whole' model, based on the relations of the parts to the whole.

Hansen's hypothesis is still controversial and has been challenged by many scholars. For example, Christoph Harbsmeier (1989) argues that there is a clear grammatical distinction between count nouns and generic or mass nouns in classical Chinese and demonstrates this view based on the semantics of counting. Mou Bo (Mou, 45) concurs with Hansen's mereological approach but argues that the implicit ontology revealed and reflected by the semantics and syntax of Chinese nouns is a nominalist ontology of collection-of-individuals, rather than a mass-stuff model of reality. Chris Fraser (2007, 420) instead acknowledges that most classical Chinese nouns indeed function as mass nouns (though with certain essential distinctions) but then goes on to say that this does not necessarily mean that one is obliged to accept Hansen's hypothesis. Based on an exhaustive analysis of pre-Qin logical sources, he argues that their authors did not appeal to part-whole relations in order to explain the use of general terms. Still, other scholars, such as Cheng Chung-ying (1987), Robert Hall and Roger Ames (1987), criticize Hansen's model through the lens of classical Chinese relational structured worldview, i.e. by exposing that in this worldview, particular, concrete things interact within continuous, dynamic patterns, and the universe behaves as an organic entirety with the parts reflecting the structure of the whole. This ontological feature of combining universality and particularity, abstractness and concreteness, activity and its result was also reflected in the structure of the classical Chinese language (see Rošker 2012). Many Chinese researchers apply the term 'field' (*chang*) to define these relations between 'parts' and 'wholes' (Luo and Zheng, 1–3).

Despite the many diverse interpretations of the relation between language and thought in the classical Chinese logic, most scholars agree that the pre-Qin logic emphasized the (social) regulative function of language rather than its descriptive use.

## 5. Concluding Remarks

There can be little doubt that understanding ancient Chinese practices and theories of reasoning has a broad cross-cultural value. There has always been considerable debate concerning the proper approach to classical Chinese logic. This debate corresponds to different phases in the reception of Western logic in the Chinese scholarly community. However, any survey of the views involved indicates just how rich and fascinating this discourse is, and how variegated the interpretative spectrum (Liu, Seligman and van Benthem, 2). The reconstruction of classical Chinese logic offers a paradigmatic case of the epistemic shifts that continue to shape interpretations of China's intellectual history. It thus remains one of the most important areas of research in contemporary Sinology.

### Short Biography

Prof. Jana S. Rošker is founder and Head of the Chinese studies at the University in Ljubljana (Slovenia). Her main academic interests include Chinese epistemology, Chinese logic and Modern Confucianism in East Asia, and she has published several books and numerous articles regarding these research areas. She is chief editor of the journal *Asian Studies*, which has been published by her department since 1998. Prof. Rošker is also the founder and current president of the *European Association of Chinese Philosophy* (EACP).

### Notes

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<sup>1</sup> While the first Chinese translations of a number of medieval texts on Aristotelian logic date from the 17th century, in China, the question of whether Chinese thought possesses a logic in the Aristotelian sense, and, if not, whether it has its own specific logic, arose mainly after the introduction of Western philosophical and scientific thought in the 19th century. This issue then acquired a particular importance after the cultural revolution of the so-called May Fourth movement, in 1919 (see Cheng Chung-Ying 1965, 195–6).

<sup>2</sup> The reasons for the decline of the latter in early medieval China are multiple and linked mainly to complex historical events and processes that shaped specific social conditions that proved to be unfavorable for the evolution of scientific thought and methodologies.

<sup>3</sup> Actually, this is not a specific feature of Chinese logical reasoning, for the logic of disputation (in the sense of arguments and counter-arguments, i.e. of thesis and antithesis) was also developed in ancient Greece. However, this form of logical method was not elaborated in later periods because the European tradition focused on the development of formal logic instead. In the history of traditional European logic, even Aristotelian logic implied two main methods: evidences and disputation. Later developments focused on syllogisms, which depended on evidences, while disputation was gradually forgotten (Li Xiankun, 353). A renewed interest in the logic of argumentation by a number of modern logicians (e.g. Chaïm Perelman 1984) only occurred in the latter half of the 20th century.

<sup>4</sup> However, Hansen's claim about the concept of truth in Chinese philosophy has been challenged by several scholars (e.g. Lenk 1991; Sun 2007; Cheng 1965; Cao and Harroff 2008). Chris Fraser, for instance, exposes that Chad Hansen's hypothesis, according to which both early and later Mohist texts apply only pragmatic, not semantic, terms of evaluation and treat 'appropriate word or language usage', not semantic truth. Fraser argues that although the early Mohist 'three standards' are indeed criteria of a general notion of correct *dao* (way), not specifically of truth, their application may still include questions of truth. He shows in detail that – in contrast to Hansen's opinion, the Mohists can justifiably be said to have a concept of semantic truth (Fraser 2012a, 351).

<sup>5</sup> In the *Mozi*, this notion is somehow ambiguous, for it is not always clear whether it refers to two objects belonging to the same kind, or to two kinds that are similar to each other. The Mohists seem to apply it in the former (see for instance *Mozi* II, *Shang xian zhong*: 7; III, *Shang xian xia* 1), but also in the latter (e.g. *Mozi* I, *Qin shi*: 6; III, *Shang tong shang*: 3) meaning. The absence of this semantic demarcation line might be rooted in its verbal connotation, which means 'to unite' or 'to unify two entities into the same one' (see *Mozi* II, *Shang xian zhong*: 6; III, *Shang tong shang*: 4).

<sup>6</sup> In different contexts, the notion *gu* can also be translated as 'cause' or 'reason' (for something to take place).

<sup>7</sup> E.g. quantifiers like 'all' (*jīn*) or 'some' (*huo*), disjunctions like 'either... or' (*huo...huo*) and conditionals like 'suppositions'" (*jīa*).

<sup>8</sup> As Xúnzǐ explains, ‘honor’ has two ‘starting points’, honor with respect to moral standing and honor with respect to social status. A person can be morally honorable while having low social status or socially honored while being morally disgraceful (Fraser 2013a, 17).

<sup>9</sup> While some scholars (e.g. Sun Zhongyuan) insist that analogism in Chinese logic (especially Mohist logic) was identical to Aristotelian three-part argumentation (or the three-branch method), there is no convincing evidence for this view and it has never found acceptance in the academic community. Already at the beginning of the 20th century, Hu Shi (1963) questioned Zhang Binglin’s (n.d) assertion that the Later Mohist School had developed a theory of three-part argumentation, arguing that the Mohist theories were based on causality rather than deduction (see Cui and Zhang, 25).

<sup>10</sup> Most of the examples of *mou* argumentation share the same grammatical form: ‘A is B; CA is CB.’ The first part of the sentence (form) is clearly a premise and the second part a conclusion. But the Later Mohists were very cautious in stating that not all the examples of the same grammatical form are acceptable and preferred to classify them in terms of different types: examples of some types were permissible, while those of other types were not. However, the only criteria they provided to substantiate this distinction were some paradigmatic examples and some incorrect examples as anomalies for comparison (see Fung 2012, 341).

<sup>11</sup> This assumption appears in classical Chinese epistemology which, on the basis of the relation between language and reality, tried to standardize (*chang*) linguistic structures ‘rationally’ (i.e. in accordance with the most appropriate structural regulation (*dao*) of language as an expression of all that exists) in order to improve and harmonize political and social relations within society (Hansen 1989, 75). Zhang Dongsun’s approach here can also be compared to some recent researches in linguistic logic, which focus on linguistic pragmatism (Li Xiankun, 153–354).

<sup>12</sup> This does not mean that ontological discourses are entirely absent in early Chinese philosophical texts. However, classical Chinese philosophers dealt with ontological questions within the scope of an implicit ontology, in which this discipline was not clearly distinguished from ethics and epistemology.

<sup>13</sup> In China, such kinds of dual oppositions are often called ‘binary categories’. Some of the most important notions, like for instance sunny and shadowy (*yin-yang*), substance and function (*ti-yong*) and roots and branches (*ben-mo*) belong to such categories.

<sup>14</sup> Here, it may be argued that Chinese logic is more consistent with modern predicate logic.

<sup>15</sup> See for instance the Mohist passage on cows and horses (Mozi 10, Jingxia, 168). While a herd can consist of cows and horses (A and B), it cannot be regarded as a herd of cows (A), nor as a herd of horses (B). Another example can be drawn from Gongsun Long’s famous *White Horse Dispute*: Something which is white color (A) and horse (B) is neither (only) a white color (A), nor (just) a horse (B) (see Gongsun Longzi, Bai ma fei ma, 1–14).

<sup>16</sup> See for instance the Mohist definition of the notion ‘filling’: What does not fill anything is dimensionless (Mozi 10, Jing shuo shang: 66).

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