LOGICIANS AND PHILOSOPHERS OF LANGUAGE
Hui Shi, the Later Mohists, and Gongsun Long

As we have noted in discussing the way in which Mohist texts are constructed, the Mohist school appears to have been the first to become alert to the methods and powers of rational argument: argument in which the syllogistic entailment of its components allows it to be convincing in the manner of a mathematical proof. However, the core Mohist texts do not seem to go beyond a self-conscious realization that the criteria for what is "convincing" may be analyzed and specified. They do not explore further the basis for this power to convince. They do not address the question of the theoretical relationship between argument and conviction, nor between argument and the way the world actually is.

However, the complete text of the *Mozi* includes a set of texts generated by Mohists of the late fourth or early third centuries which illustrates conclusively that these later Mohists did indeed pursue issues of language, conviction, and reality in depth: in fact, in greater depth than any other Chinese thinkers prior to the twentieth century. In engaging in this work, the later Mohists were not only trying to clarify the underpinnings of Mohist ethical doctrines, but were joining a small number of other early thinkers in probing the foundations of language and issues related to the structure of the rules of reason, or logic.

These thinkers are often referred to as the "Logicians," but this is a misnomer. Some of these men specialized in mathematical and logical paradoxes, in the manner of the Greek philosopher Zeno, in order to promote an ethical agenda. They employed some forms of rigorous logic, but they were essentially seeking to ground ethical positions in new metaphysical perspectives. Other "Logicians" were more truly philosophers of language. They explored ways that language worked and the relationship between words and the world. But the work that these men did with language was also dictated by an ethical agenda. The conventional view of language in early China laid much greater stress on its functionality as a pragmatic instrument for behavioral regulation than on its power to represent the world in words. Philosophers of language were principally interested in reforming language use so as to limit the way that rhetoric could be misused to twist the regulative function of language.

In this section, we will introduce the two most famous "Logicians": Hui Shi and Gongsun Long. We will also look at a brief selection of passages from the writings of the later Mohists.

Features of the Classical Chinese Language

In order to understand some of the philosophy of language texts that follow, you need to know some features of the language that was the object of analysis for these philosophers (this is not critical in the case of Hui Shi, but is for the others).

Written Chinese, because it employs characters rather than an alphabet, is unusual in that it may be understood without reference to its underlying spoken forms. This is theoretically true of any written language, but in the case of Chinese, this is not only a far more practicable notion than it would be for alphabetic languages, historically many East Asian peoples have become fully literate in Chinese with minimal knowledge of Chinese speech.

During the Classical period, there were a variety of languages spoken in China. A single spoken language prevailed through most of the regions of the Zhou polity, but the native populations of peripheral states such as Chu and Yue spoke languages that were unintelligible to the Zhou people. These languages had no written forms, and therefore "Zhou Chinese" was adopted in these states as a written medium (the ruling elite apparently learned Zhou Chinese as a spoken language as well). In addition, even within the Zhou language sphere, there were pronounced differences among regional dialects.

The form of ancient Chinese that appears in Classical texts is usually termed "Classical Chinese." Although the use of characters makes it a subtle and supple linguistic medium, as a spoken language Classical Chinese would appear to be a spectacularly unintelligible device: the proportion of monosyllabic homonyms is enormously high and syntax is so radically uninflected that few now maintain that there was a close resemblance between written and spoken forms. Rather, it appears that written syntax remained primitive in order to more easily facilitate the linguistic coherence of written forms as they were employed by language groups with different syntactic features.

Perhaps as a result, the *lingua franca* of early China, written Classical Chinese, possessed features strikingly different from modern Indo-European languages. For example, Classical Chinese does not differentiate singular from plural, tense, or word class. In theory, any character may represent a word that can flexibly perform any grammatical function. Here are some examples of this grammatical plasticity (the examples exclude other unrelated meanings also associated with these characters):

是　　*shi* : what is so (noun), this/these (pronoun), this/these (adjective), to be so (intransitive verb), to assert or approve (transitive verbs), thereupon (adverb).

白　　*bai* : the color white (noun), white (adjective), to become white (intransitive verb), to whiten/to treat something as white (transitive verbs), in vain (an adverb).

The degree of ambiguity in ordinary sentences is impressive (this is largely responsible for the highly divergent translations that characterize the field of Chinese philosophy).

As mentioned above, one of the distinctive features of Classical Chinese is the fact that singular and plural forms are not distinguished. This is true of nouns as well of other word classes. Moreover, despite the problems this introduces, Classical texts rarely add other words to disambiguate between singular and plural – most of the time, we must simply guess. There is, for example, nothing in Chinese that serves the function of the English "a" or "the," which create a context of individuation for the noun that they precede. For this reason, one analyst of Classical Chinese and early Chinese theory of language, Chad Hansen, has argued that there are no "count nouns" in Classical Chinese (nouns that function like, say, "pencil" in English, which appears in constructions such as, 'a pencil,' 'three pencils'), and that all nouns are, rather, "mass nouns" (like 'water' in English, of which we do not generally say 'a water,' 'three waters,'" and so forth). While we may not adopt Hansen's ideas without reservations, there does seem to be strong evidence that the mass noun was basic to Chinese concepts of language, and, more importantly, when Chinese considered what a noun denoted, they conceived the referent on the model of an unindividuated "mass," as Hansen's claim implies.

Historians of Western philosophy have long enjoyed analyzing how centuries of philosophical debate in the West were dominated by fruitless issues into which thinkers were led by virtue of structural features common to many Indo-European languages. As we will see in our class discussion, the characteristics of Classical Chinese, which was the language that came under philosophical scrutiny by our thinkers, allowed Chinese thought to escape completely from the most central of these issues: the metaphysical status of "universals" such as 'whiteness' and 'goodness'. However, we will also see that the features of Classical Chinese, such as extreme grammatical flexibility and the absence of count nouns, led thinkers into fruitless traps at least as unproductive – only, in the case of China, rather than leading to centuries of debates, the difficulties of these issues brought philosophy of language and the first steps towards theories of logic to a very premature end.

HUI SHIH

Hui Shi 惠施 (often referred to as Huizi) was a contemporary of the Daoist philosopher Zhuangzi. He probably developed his ideas late in the fourth century (his dates are sometimes given as c. 380-305). Most of our information on Hui Shi is derived from the final chapter of the *Zhuangzi*, which was appended to that work during the century following the reunification of China as a retrospective overview of Classical thinkers.

Hui Shi was famous for logical paradoxes. We know little about his life, but the general thrust of his paradoxes suggest that they were devised to support a type of monistic worldview that would have been most congenial to the Mohists. In this respect, his role would have been somewhat similar to that of the Greek thinker Zeno, whose paradoxes, many of which seem to have paralleled Hui Shi's, were devised in the service of the monistic metaphysics of his teacher, Parmenides.

The 31 paradoxes that are associated with Hui Shi's name are of particular interest because they show a concern with mathematical reasoning as well as with logic and language. The very first of the paradoxes, which are translated below, engages concepts of the infinite and the infinitesimal which we do not see on the philosophical agenda prior to Hui Shi's time. Perhaps this is why the impact of Hui Shi was, in the end, itself infinitesimal. The philosophical enterprise on which he was engaged, like the Mohists', in many ways related more closely to ancient Western agendas than to the enterprise of those with whom he was debating in China.

The paradoxes of Hui Shi

1.   ***Ultimate greatness leaves nothing outside; it is called the Great Unity.***
        Ultimate smallness leaves nothing inside; it is called the Small Unity.

2.   ***What is without thickness cannot be piled up, but its size may extend over a thousand li.*** (A *li* is a measure of distance, about ⅓ mile.)

        We can see in these first two citations a concern with concepts related to geography in building philosophical foundations: a linkage we discussed in the Greek thinker Zeno.

3.   ***Heaven is as low as earth; mountains and lakes are level.***

        The reasoning for this has been lost, and though one may imagine a number of possible lines of argument, this paradox joins a number of those below in having no definitive explication traced to Hui Shi.

4.   ***The instant the sun is at its zenith it is declining.***

The instant a thing is born it is dying.

We will see this referred to in the Daoist text *Zhuangzi*, as is also true of #7, 10, and 20 below.

5.   *Things may be alike in large ways and different in small ways: this is called the small likeness and difference.*
     The things of the world are in the end the same and in the end different: this is called the great likeness and difference.

6.   *The South has no end and has an end.*

7.   *I go to Yue today and come there in the past.*

Perhaps relying on a past-progressive tense for 'come', indistinguishable from present tense in Classical Chinese.

8.   *Interlocking rings may be separated.*

9.   *I know the center of the world: it is north of Yen and south of Yue.*

Yen was the northernmost state at this time, Yue the southernmost.

10. *Broadly love the things of the world; heaven and earth are one body.*

This group of ten is recorded as the most basic definitions and paradoxes of Hui Shi. The last serves as a climax or conclusion from those that came before, and is the principal basis for considering Hui Shi's paradoxes to have been in the service of a Mohist agenda.

11. *Eggs have hair.*

12. *Chickens have three legs.*

13. *The city of Ying contains the world.*

14. *A hound may be taken as a sheep.*

15. *Horses lay eggs.*

16. *Frogs have tails.*

17. *Fire is not hot.*

18. *Mountains emit mouths.*

19. **The wheel does not touch the ground.**

This, like #25, and 30 below, seems to build upon Zeno-like concerns with the existential status of the infinitesimal point. If an ideal wheel is conceived as touching the ground at only one point, and that point is infinitesimally small, then its point of contact is indistinguishable from none.

20. **The eye does not see.**

21. **The pointing finger does not reach, but reaches unbroken.**

'Pointing finger' is also the term used to denote linguistically connoted 'meaning'.

22. **A turtle is longer than a snake.**

23. **The carpenter's square is not square; a compass cannot make a circle.**

24. **The mortise does not surround the bit of a chisel.**

25. **The shadow of a flying bird has never yet moved.**

26. **The arrow flies fast, but there are times when it neither advances nor rests.**

27. **A puppy is not a dog.**

28. **A tan horse and a black ox make three.**

29. **A white dog is black.**

30. **An orphan colt never had a mother.**

31 **Take a stick one foot in length and cut off half of it every day: it will never be exhausted, even after ten thousand generations.**

A parallel to Zeno's paradox of the stadium.

THE LATER MOHIST "CANONS"

The sections of the *Mozi* that are devoted to analyses of logic and philosophy of language (as well as to certain fundamental issues of metaphysics and science) are without question the

most obscure corpus of texts in the history of Chinese thought. There are several reasons why this is so. First, the form of the greater portion of these texts is a series of terse definitions or analyses, generally lacking any greater context. Second, writers of these texts were pioneering totally uncharted intellectual terrain and so developed a technical vocabulary unique to their own work. Third, because of the innovative use of Chinese characters in these terse and fragmentary texts, later copyists, with no idea what the texts were trying to convey, repeatedly miscopied the texts. Finally, the texts were written on bamboo slips bound by cords that rotted away, allowing the slips to become disordered. Because no one understood how to read the texts, the slips were at some point rebound in near-random order.

Thus for over two thousand years, although we have known that the later Mohists, men writing about 300 B.C., were addressing issues of language and logic distant from the concerns of mainstream thinkers of their day, we have largely been in the dark as to the specific nature of their ideas.

Only fifteen years ago did a British sinologist named A.C. Graham manage, through years of study, to reassemble the extant texts in cogent order. In doing so, Graham uncovered the startlingly advanced thought of the later Mohists who were in the process of developing a wide range of ideas very alien to Chinese thought, but quite familiar to the Western tradition. For example, consider the following definitions:

> **'Duration': the spreading over different times. 'Present' and 'past'**
> **combine morning and evening.**

> **'Space': the spreading over different locations. East to West covers**
> **North to South.**

> **'Point': a body with no dimension at the very start [of a line].**

> **'Dimension': that which has size. Only a point has no size.**

We can discern from passages such as these that the later Mohists were dealing with issues connected with mathematics and geometry similar to those that occupied Hui Shi, whom we have earlier noted has other features in common with the Mohists.

Apart from their interest in issues of geometry and an associated interest in science, the principal project of the later Mohists was clearly to develop a fully adequate analysis of the Classical Chinese language and the way it functions. Their goal was to perfect language as a

philosophical tool for thoroughly rational discourse – a discourse which they believed would resoundingly confirm the truth of basic Mohist doctrine.

The Mohists' optimistic premises about the potential for language to be an effective truth-tool are expressed in the following passage from a chapter of the *Mozi* that deals with issues related to the logical canons.

> ***The purposes of argument are: by clarifying the portions of 'this-is-so' and 'this-is-not', to inquire into the principles of order and misrule; by clarifying points of sameness and difference, to discern the patterns of names and actualities; by settling the beneficial and the harmful, to resolve confusions and doubts.***

To realize these ideals, the Mohists listed careful definitions of basic logical terms, key ethical words, and other important words that tended to become unclear when used in actual argumentation. It was the apparent position of the Mohists that language, employed as rhetoric, was subversive of language that reproduced the normatively proper array of things in the world. If language were freed of the devices that men used for purposes of persuasion, then words could image forth both the world of things and the innate order that infused these things as they constituted the world (we will explore this underlying metaphysical notion in class). The first step in reforming language use was to identify and classify the uses of words in actual speech, and many Mohist definitions undertake not only to regularize the way that terms should be used, but also to describe the way they actually were used.

A brief taste of the manner in which the Mohist philosophers of language went about their work can be obtained by observing the ways in which the logical canons define and discriminate among the various uses to which the word "same" is put.

'Same': Doubled; of one unit; joint; of a kind. – When there are two names but one actuality is 'the same doubled'. [That is, one way in which things are 'same' is when a single object is known by two names and its existential unity is being established.] ***Not being outside the conjoint realm is 'same unit'.*** [A second sense of 'same' is as with two members of a single set.] ***Occupying one space together is 'joint sameness' Having some aspect in which they are the same is 'sameness of kind'.***

The Mohist canons painstakingly accumulate such definitions, as well as going further to examine the way in which words are linked together to form statements. But their hard work was undermined by sophistic opponents, such as Gongsun Long, whose demonstrations

of the unstable excesses to which language was subject may have led to the extinction of philosophy of language in the Chinese philosophical tradition.

GONGSUN LONG

Gongsun Long 公孫龍 was a philosopher of language who became for a time the chief advisor to the leading warlord of his native state of Zhao. His lifespan was approximately 320-250. Although we know more about Gongsun Long than we do about Hui Shi and there exists a brief collection of his logical disputations (most of which was probably written well after his death), we still have little information about him, and it is unclear to which established school of thought he belonged, if any. Some passages concerning him suggest Mohist leanings, but the majority suggests that he was principally aligned with the Confucians, and we will treat him as a sympathizer of that group, although, perhaps, not himself deeply trained in ritual studies.

Gongsun Long's philosophical project seems to have been a negative one. He seems to have devoted himself to undermining the movement for language regularization that we have observed in the later Mohists. His position seems to have been that any fully perfected language must conform to the doctrine of the "rectification of names," that is, that every word must always be used to refer to predefined referent and nothing else, and that every word would possess only one referent and every thing only one name. (This version of the rectification of names theory was actually an extension of the socio-politically regulative dimension of that concept, which initially held that every *social role* should be designated by only one title, corresponding to a fixed set of duties or expectations, and that only people who fulfilled their role expectations should be addressed by their titles.)

The normative goal of the rectification theory, as applied to language, was expressed as the alignment of "names" and "actualities." The unrealistic nature of this goal was not understood by Gongsun Long's contemporaries who shared with him a wonderfully simplistic view of the nature of the Chinese language. As we saw earlier, individual words in Classical Chinese were regularly adapted to an unusually wide variety of grammatical classes and were not inflected in any way when such adaptations occurred. This led to a belief that all words were essentially nouns, and the philosophical term for a word was "name." This theory constitutes a significant handicap in the construction of a coherent philosophy of language

(the Mohist philosophers of language seem to have gone beyond this model of language, but without formulating an alternative theory of syntax).

The book of Gongsun Long's essays and disputations includes a brief essay that sets forth this philosophical project. The text itself probably dates from the post-Classical period, and there is reason to believe that it does not actually reflect Gongsun Long's own position, which may have been that language reform was the wrong arena to apply the rectification of names concept. Nevertheless, the essay is most likely a good reflection of the mainstream view of those who participated in the enterprise of language reform and so of value in understanding what Gongsun Long may have been debating *against*.

"On Names and Actualities"

Heaven and earth participate in the things that they give birth to: all together are 'things'. When a thing is taken as a thing according to what makes it a thing without excess, that is 'actuality'. When actuality actually fulfills its character as actuality without deficiency, that is 'occupying a position'. If one goes beyond that which is the character of a position, that is not occupying a position. To fulfill the position of one's position is 'correct'. To take what has been corrected to correct what has not been corrected is to introduce doubt about what has been corrected. What is corrected is the character [of a position] as actuality. To correct its character as actuality is to correct its name.

The process of rectification of names for all things is conceived in terms of normatively designated social function. All elements of the world are analogized to official position. What is called for is a process of aligning name to designated function by identifying the unique role intended for each position, through the name, and making the actual function of the "office" match the name correctly. Each functional position is unique, analogous to the uniqueness of each species of thing. The successful "correction" of one position is not a standard for any other.

When the name is rectified, then each answers to a designation of 'this' or 'that'. If one refers to 'that', and that does not answer to it, then such is referred to as 'not functioning'. If one refers to 'this' and this does not answer to it, then such is referred to as 'not functioning'. They do not correspond to their function, and in not corresponding, they disrupt.

When one takes that as 'that', and it corresponds to 'that', then it answers to 'that': such is referred to as 'functioning as that'. When one takes this as 'this', and it corresponds to 'this', then it answers to 'this': such is referred to as 'functioning as this'. They correspond to their functions, and in so corresponding, they are correct.

Thus it is allowable to treat that as 'that' and limit it to 'that', and to treat this as 'this' and limit it to 'this'. It is not allowable to treat this as 'that' and let 'that' become 'this', or to treat that as 'this' and let 'this' become 'that'.

> The words 'this' and 'that' are confusing in English, but the passage can be rendered plain enough if one substitutes 'A' and 'B' for 'this' and 'that' (I have preserved the more confusing terms because we will see them used in related ways in the discussions of Zhuangzi). The issue concerns function matching name, and the final paragraph is the punch line: it is unacceptable to misapply a name and thus allow its range of denotation to become complex.

Names and actualities concern referring. If one knows 'this' is not right because one knows 'this' does not inhere in this, then one does not refer to it so. If one knows 'that' is not right because one knows 'that' does not inhere in that, then one does not refer to it so.

Perfect were the enlightened kings of old! How penetrating their names and actualities! The took care in their referring. Perfect were the enlightened kings of old!

* * *

Gongsun Long's purpose in entering the debate over the way in which language should be refined so that it could become an adequate tool for philosophical knowledge seems to have been to undermine the achievements of the enterprise. He seems to have shared the Confucian suspicion of language and to have been attempting to demonstrate that the Mohist project to refine language for the purpose of logical argument was fundamentally flawed. His most famous argument, that "a white horse is not a horse," employs logic to claim that it is perfectly coherent, or "allowable," to assert an incoherent statement.

The effect of Gongsun Long on the course of early Chinese philosophy was to delegitimize philosophy of language: to make it appear that since anything could be "proved" through language, language was actually too clumsy a tool to reveal what was actually so. In this course, our interpretation will be that this was precisely his intent, and that Gongsun Long

was essentially a Confucian champion, defending against the challenges of Mohist rationalism, challenges that Mohist logicians were attempting to strengthen.

In the translation of the white horse paradox that follows, an unusual convention is employed. The form of the text is a dialogue between a questioner and Gongsun Long, who provides answers. As the two debate, it becomes clear that in employing the central terms of 'white' and 'horse', the two are frequently appealing to different senses of these words. Most crucially, they appeal at different times to 'white' or 'horse' as adjective and concrete noun, and to the same words in the more universal sense of the quality of white or the sum total of horses (we will discuss this distinction further in class). For purposes of clarity, wherever the sense of one of these words appears to be either to isolate the quality or to point to the word in a more abstract sense, the words are rendered in capitals: WHITE; HORSE.

The White Horse Paradox

Section 1
Q.   Is it allowable to say to say, 'A white horse is not a horse'?
A.   It is allowable.
Q.   Why?
A.   'HORSE' is employed to name a shape. 'WHITE' is employed to name a color. What names a color does not name a shape; therefore we can say 'White-horse is not HORSE.'

Section 2
Q.   Taking horses that have color as not horses, there being no horses in the world without color, is it allowable to say, 'The world has no horses'?
A.   Horses have color inherently, therefore there are white horses. If horses had no color and horses had no aspect other than HORSE, where would one find a white horse? Thus WHITE is not HORSE. 'White-horse' is 'horse' and 'white'. Therefore we can say 'White horse is not HORSE'.

Section 3
Q.   'There is a white horse' cannot be equated with 'there is no horse'. The reason why one cannot say 'there is no horse' is because there is a horse.

> *If 'there is a white horse' means 'there is a horse', why would you have it not a horse if it is white?*

A. *If you take 'there is a white horse' as meaning 'there is a horse', would you take 'there is a white horse' to mean 'there is a tan horse'?*

Q. *That is not allowable.*

A. *To take 'there is a horse' as different from 'there is a tan horse' is to differentiate between 'tan-horse' and 'HORSE'. To differentiate between 'tan-horse' and 'HORSE' is to take 'tan-horse' as not HORSE. To take 'tan-horse' as not 'HORSE' and take 'white-horse' as there being a horse is like flying high in a pool of water or burying inner and outer coffins separately. It must be relegated to the perverse teachings and confused words of the world.*

Section 4

Q. *That when there is a white horse one cannot say of this 'there is not horse' is termed 'separating off white'. If you do not separate it, when there is a white horse you cannot say 'there is a horse'. Thus what is taken to be the presence of a horse limits having a horse solely to the aspect of horse as such. This denies that having a white horse is having horse as such. Thus whenever he has a horse, he cannot term his horse a horse.*

This is the key point in the debate. 'Separating off white' is a technical term that relates to one of two paradigmatic types of compound words in ancient Chinese. Lacking any suitable grammatical understanding, analyzing these two types of words was extremely challenging to philosophers of language.

One of these compound forms was composed of two terms we would call adjectives. The standard example for this sort of term was 'hard-white', as in the sentence, "This stone is hard-white." The second type was a compound noun form, absent in English, of which the standard example was 'ox-horse' (more clearly, 'oxen-horses', signifying the meaning 'domestic livestock'). Logicians discovered that the elements of the second type of term were easily "separated"; that is, 'ox-horse' was analyzable as exclusive domains of 'ox' and 'horse', such that all 'not-ox' was 'horse' and vice versa. This was not easily done for 'hard-white' as the "hard stuff" and "white stuff" shared a single range of extension: e.g., the stone. It should be noted that both 'hard-white' and 'ox-hose' type terms are transitive; that is, the terms may exchange position without affecting the meaning (e.g., 'hard-white' ' 'white-hard').

At this point of the debate, the interlocutor wishes to "separate" 'white' from 'horse', thus treating 'white-horse' as an 'ox-horse' type term. Gongsun Long appears to picture 'white-horse' as a term of the 'hard-white' type. Moreover, it seems likely that his analysis implicitly applies the rule of transitivity to 'white-horse', such that 'white-horse' ' 'horse-white'. It is not hard to understand that 'horse-white' can be construed as different from 'horse' (or HORSE).

A.   *When one asks for a horse, a tan or black horse may be brought. When one asks for a white horse, tan or black horses may not be brought. Were 'white-horse' HORSE, what is sought would all be the same. If what were sought were all the same, then WHITE would not be different from HORSE. If what were sought were all the same, then what would determine whether such as tan or black horses were acceptable or not acceptable? It is clear that acceptable and not acceptable are mutually exclusive. Hence tan or black horses are the same in that one may respond concerning them, 'there is a horse', but one may not respond saying 'there is a white horse'. This is the explication of 'White-horse is not HORSE'.*

Section 5

Q.   *A horse that is not yet joined with white is a horse as such; white that is not yet joined with horse is white. When one conjoins horse and white, they are named by the joint term 'white horse'. To take the manner in which they are named prior to being mutually conjoined as the mutually conjoined name is unallowable. Therefore, to say 'A white horse is not a horse' is unallowable.*

A.   *'WHITE' does not fix anything as white; that 'WHITE' may be ignored. The 'white' in 'white-horse' fixes something as white. What fixes something as white is not WHITE. [Note: Therefore, we would not say 'A white horse is white', as it would signify 'white-horse is WHITE'.] 'HORSE' neither selects nor excludes any color, hence 'tan' and 'black' could both answer to it. 'White-horse' selects some color and excludes others; tan and black horses are all excluded on the basis of color. Thus only white horses may answer to the term. What excludes none is not what excludes some. Therefore I say, 'White-horse is not HORSE'.*