

THE CONCEPTS OF NECESSITY AND THE "A PRIORI" IN LATER MOHIST DISPUTATION

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III *Hsien* 先, "a priori".
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FINDING LIST

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ABBREVIATIONS

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(1)
The composition of the Gongsuen Long tzyy (Asia Major NS 5/2(1957), 147-83).

- (2) *The logic of the Mohist Hsiao-ch'ü* (T'oung pao, 51/1(1964), 1-54)
- (3) *The "Hard and white" disputations of the Chinese sophists* (Bulletin of the School of Oriental and African Studies, 30/2(1967), 358-68).
- (4) *The background of the Mencian theory of human nature* (Tsing Hua Journal of Chinese Studies, 6/1,2(1967), 215-74).
- (5) *The grammar of the Mohist dialectical chapters, in A symposium on Chinese grammar*, edited by Inga-Lill Hansson, Lund 1971.
- (6) *Later Mohist treatises on ethics and logic reconstructed from the Ta-ch'ü chapter of Mo-tzü* (Asia Major NS 17/2(1972), 137-89).
- M Morohashi Tetsuji 諸橋 轍 次 *Dai Kan-Wa jiten* 大漢和辭典, Tokyo 1955-1960.
- SPPY *Ssü pu pei yao* 四部備要.
- SPTK *Ssü pu ts'ung k'an* 四部叢刊.
- HY Harvard-Yenching sinological index series.
- EC *Expounding the Canons*.
- NO *Names and objects*.
- C *Canon*.
- E *Explanation*.
- <A> Insert A.
- [A] Delete A.
- (A)*B Read B for A.
- [A] [B] Transpose A, B.
- (A) Head character of *Explanation* or gloss.
- *A Emended character.
- †A Corrupt character.

REFERENCES

The text of *Mo-tzü* followed is that of the Chia-ching Kuei-ch'ou 嘉靖癸丑 (A.D. 1553) edition reproduced in the *Ssü-pu ts'ung-k'an*.

References are to:

(1) The *Canons* as numbered in T'an's edition, *Expounding the canons* and *Names and objects* as numbered in G(6). Since my divisions between *Canons* and between *Explanations* follow strictly the principle that the latter always have the first word of the *Canon* as heading at first or second place, the divisions are not always the same as T'an's.

(2) *Chüan* 卷, page and line in the *Ssü-pu ts'ung-k'an* edition.

I. Introduction

Although there is much subtle and coherent reasoning in early Chinese philosophy, only one of the philosophical schools of 500-200 B.C. shared the total commitment to rationality of their contemporaries in Greece. This was the school founded about 450 B.C. by Mo-tzü 墨子, the teacher of *chien-ai* 兼愛 "universal love", which during the 4th century B.C. borrowed the debating methods of the sophists (*pien che* 辯者) in order to defend itself against rival schools. The later Mohists are remarkable for their respect for the logically demonstrable, their elaboration of Mo-tzü's moral teachings into a rationalized ethical system, and their interest in sciences in which conclusions are strictly testable, optics and mechanics; they even share the Greek fascination with the precision of geometrical definition. For anyone concerned with the question whether the Greek discovery of the possibilities of reason is a unique event in history, the later Mohists are of especial interest. The purpose of this paper is to show that they have concepts both of logical necessity and of the "a priori".

Their writings are preserved in the six dialectical chapters of *Mo-tzü*:

(1) The *Ching* 經 "Canons" (ch. 40, 41), definitions and propositions in logic, ethics, geometry and physics. The *Canons* fall into definite sequences, and all require to be studied in context and not piecemeal (except in B 32-82, a miscellaneous collection of problems in disputation which only sporadically fall into pairs or series).

(2) The *Ching shuo* 經說 "Explanations of the Canons" (ch. 42, 43). The *Canons* would have needed explanations from the beginning, although these may have been oral and fluid at first and only later written down in their present form. The principal evidence for dividing and apportioning the *Explanations* is that the first character (occasionally the first two characters) of a *Canon* is quoted at the head of its *Explanation*. The head character often stands one place too late, suggesting that it was originally written at the side of the first character of the *Explanation*, and so sometimes entered the text after instead of before it. The assumption of most editors that head characters were often lost or misplaced, leaving us at liberty to make the divisions where we please, seems to be quite baseless. In the present quotations the divisions are established so that a head character is invariably located at first or second place. Many *Explanations* contain parenthetic illustrations beginning with 若 "Like . . .", probably originally written in the margin like the head characters, since they are occasionally misplaced.¹

¹ Cf. B 10, where T'an notes that 若石羽 "Like stones and feathers" stands six places too late, and the parenthetic "For example, to a circle being nowhere straight" in A 96 quoted below, which does not belong to the sentence. I was formerly convinced that the illustration at the end of A 1 belongs to A 6 (G(2)24, n. 1) and inferred that the illustrations were written in from another document, often in the wrong contexts (cf. G(6) 164). But since appreciating that the illustration in A 1 is after all intelligible in its present position (cf. p. 171 below) I have lost confidence in this hypothesis.

The logic of the *Canons* and *Explanations* is conceived exclusively in terms of the fitting (*tang* 當 "be plumb with") of names (*ming* 名) to concrete and particular objects (*shih* 實, literally "solids"); there is not yet any conception of the proposition except as a complex name.

(3) The *Ta ch'ü* 大取 (ch. 44) and *Hsiao ch'ü* 小取 (ch. 45). The former is a collection of miscellaneous fragments, and the titles probably signify the "Bigger pick" and the "Smaller pick" from a pool of dislocated writing-strips. In *Later Mohist treatises on ethics and logic* I proposed that:

(a) The ethical fragments in the *Ta ch'ü* come from a document entitled *Yü ching* 語經 "Expounding the canons", consisting of thirteen propositions on ethics with their explanations; this was the earliest of the dialectical writings.

(b) The *Hsiao ch'ü* and the logical fragments of the *Ta ch'ü* come from a consecutive treatise on logic entitled *Ming shih* 名實 "Names and objects". This is the latest of the documents, and proposes a new logic based not on names but on *tz'ü* 辭 "sentences, propositions".

As for the dating of the four writings, we can only say that none can be much earlier or later than 300 B.C. *Expounding the canons* and *Names and objects* are translated in *Later Mohist treatises on ethics and logic*, but the others are unavailable in any Western language except in the obsolete German translation of Forke.

II. Pi 必 "necessity"

Among the central themes of the *Canons* is the relation between knowing and temporal change. In A 3-6 the Mohist defines in turn the words *chih* 知 "intelligence, consciousness", *lü* 慮 "thinking", *chih* 知 (originally distinguished by the graph 智),² "knowing", and *chih* 恕 "knowledge, wisdom". He compares the intelligence by which we know to the eyesight by which we see, thinking to peering, knowing to seeing, and wisdom to clarity of vision. He considers however that knowing is unlike seeing in that it continues to fit the fact (*tang*) after perception ceases; what characterises knowing is that we can describe a thing after it has already been "passed" (*kuo* 過), when it is no longer in front of our eyes:

A 5 (10/6B/3) 「知」也者：以其知過物而能貌之。
 "Knowing": by means of his intelligence, having passed the thing he is able to describe it."

B 46 (10/3B/2, 3) 知而不以五路，說在久。
 (17B/3, 4) (智)。以目見而目以火見而火不見。惟以五路，智久不當。以目見若以火見。

² *Chih* "know" is generally written with the "sun" radical in *Explanations* Part B and the *Ta ch'ü* (*Mo-tzü* ch. 43, 44). Evidently the patience of the scribe who standardized the graph ran out at the beginning of ch. 43. In four places the radical survives in the head character of the *Explanation* although eliminated from the *Canon* (B 34, 40, 46, 48).

"C. When one knows, it is not by means of the five senses. Explained by: duration.

"E. One sees by means of the eye and the eye sees by means of fire but the fire does not see. If the only means were the five senses, knowing as it endures would not fit the fact. Seeing by means of the eye is like seeing by means of fire."

Whatever is not "just now so" (*fang jan* 方然) is either "ended (*yi* 已) or "about to be" (*ch'ieh* 且), three terms distinguished in A 33. That something has ended does not discredit our knowledge of it, since we can still say that it "has been so" (*ch'ang jan* 嘗然):

B 61 (10/4B/5) 可無也，有之而不可去。說在嘗然。
 (18B/8, 9) (可)。<---可>¹ 無也。已給，則當 (=嘗)² 給，不可無也。久有窮，無窮。

(Notes: 1. The organization of the *Explanation* suggests the loss of a clause at this point, due to the scribe's eye jumping from one *k'o* to the next. 2. This graphic interchange is common in *Mo-tzü* (Sun 65/5, 146/-2, 155/-1, and B 38 quoted below).)

"C. Something may not be, but once it is, it cannot be dismissed. Explained by: having been so.

"E. That . . . may not be. That if it was provided it has been provided cannot not be. The duration is both limited and limitless."

But when we have passed a thing we are not always sure whether or not it has ended. The Mohist distinguishes four kinds of doubt (*yi* 疑), the fourth of which is doubt caused by *kuo*, "having passed":

B 10 (10/12B/8-13B/1) 智與，以已爲然也與，(愚)*「過」¹也。

(Note: 1. Emended from the list of four in the *Canon*. Cf. also B 33 過而以已爲然 "Having passed, we suppose the already ended to be so.")

"Is it knowing? or is it supposing the already ended to be so?" is [the doubt of] 'having passed'."

An awareness of changing times, of past knowledge becoming obsolete, of the example of the sages losing its relevance, pervades all the philosophical schools of the third century B.C. Taoists welcome it, Confucians dread it, the Mohists (who alone among the schools have committed themselves wholly to logic) respond to the challenge by seeking a kind of knowledge invulnerable to time. In both the definitions of A 1-87 and the theses of A 88-B 82 we find crucial sequences which begin by examining space, time and change, and conclude with judgments on the permanence or impermanence of kinds of knowledge.³ The second of these sequences (B 13-15) discusses the relation between space (*yü* 宇) and duration (*ch'iu* 久), and explains that the whole of space is present at each moment, moves forward,

³ For the organisation of the *Canons*, cf. G(6) 151.

and in moving has duration.⁴ At first sight one supposes that the Mohist is concerned with the spatial and temporal puzzles raised by the sophists, but when we reach the last *Canon* we see that his purpose is much more practical, to show that ways of government suitable to the past may become obsolete:

B 15 (10/4B/1, 2) 在¹ 諸其所然, 未² 者³ 然², 說在於是³.
(13A/4-6) (在)。「堯善治」, 自今在諸古也。自古在之今, 則「堯不能治也」。

(Notes: 1. In the same sequence we find in B 13 南北在*旦, 有(=又)在莫(=暮) "North and South are present at dawn and again at nightfall". The *tsai* "be in" is here causative before *chu* 諸 (=之於), "locate it in...". 2. This transposition (Liang, Kao, Wu, Liu) appears preferable to Sun's emendation to 諸未然. 3. Judging by the *Explanation*, both *so jan* "where it is so" and *shih* "the one in question" refer to times.)

"C. Locating it in the time when it is so or during the not yet so. Explained by: at the time in question.

"E. In 'Yao is good at ruling', we are locating him in the past from a standpoint in the present. If from a standpoint in the past someone located him in the present, it would be 'Yao is unable to rule'."

Whether Yao can serve as an example for the present is discussed again in B 53. It is significant that in both cases the sage whose contemporary relevance is questioned is Yao, revered by the Confucians rather than the Mohists. Elsewhere in the dialectical chapter the only sages mentioned are Yü 禹 (patron sage of the Mohists) and Mo-tzü himself.⁵

The sequence on change found among the definitions (A 39-51) begins by defining *chiu* "duration" and *yü* "space" but concludes by using temporal words to define two of the basic terms in the Mohist logic, *chih* 止 "stay" (A 50) and *pi* 必 "necessary" (A 51). *Chih* is used of a name staying in an object and remaining confined to it throughout its duration (A 78 是名也止於是實也 "This name stays in this object". B 68 「彼」彼止於彼 "treat that as 'that' and stay in that", a usage also found in *Chuang-tzü* (ch. 18, HY 47/18/39 名止於實 "Names stayed in objects"). It is also used causatively of fixing a name on an object (A 95 止「黑人」 "fix as 'black man'" (心) *止「愛人」 "fix as 'love of man'"), as well as in such phrases as "fix the criterion" (A 95 止因) and "fix the kind" (B 1 止類). The *Canon* on "staying" is to be read in the light of an earlier definition in the same series:

A 43 (10/2B/5) 始當時也。

(8A/5) 動(始)時, 或有久, 或無久。始當無久。

"C. To 'commence' is to be plumb with the time.

⁴ The sequence is translated in G(3) 363.

⁵ EC 2, 5.

"E. Of times of a movement, there is one which has duration, and one without duration. The commencement is plumb with the one without duration."

The definition is ambiguous, since the movement "being plumb with the time" could refer either to the initial moment or to the period of motion; the *Explanation* clears up this ambiguity.

A 50 (10/1A/3) 止, 以久也。

(8A/8-9A/1) (止)。無久之不止, 當「牛」「非馬」。(若(夫)*矢¹過楹)。有久之不止, 當「馬」「非馬」。(若人過梁)。

(Note: 1. These graphs are regularly confused in *Mo-tzü*. Cf. Sun 321/-3, 369/13, 380/12).

"C. To 'stay' is to endure as such.

"E. When the one without duration [the commencement of fitting] does not stay, it is plumb with 'ox' and 'non-horse'. (Like an arrow passing a pillar). When the one which has duration [the period of fitting] does not stay, it is plumb with 'horse' and 'non-horse'. (Like a man passing a bridge)."

From its commencement onwards the object is X and non-Y; at the moment of its end (as presumably at its commencement) it is both non-Y and Y. (Since "ox" and "horse" are pure logical counters, we need not ask how an ox comes to be transformed into a horse). The sophist Hui Shih 惠施 made the same point, that opposites are both true at a moment of transformation, in his paradox "The sun is simultaneously at noon and declining, a thing is simultaneously alive and dead." (*Chuang-tzü* ch. 33, HY 93/33/71 日中方昃, 物方生方死。)

The next and concluding section of the series, on *pi* "necessity", is unfortunately corrupt. But for reasons which will be explained in the appendix I believe that the word disguised by the puzzling graph 臺 can be identified as *ti* 齒 "complement", a technical term variously corrupted in the dialectical chapters.

A 51 (10/1A/3, 4) 必, 不已也。

(8B/1-3) (必)。謂*商孰¹者也。(若弟兄)。一然者, 一不然者, (必)*止²不必也, 是非必也。

(Notes: 1. Pi Yüan's emendation of *shou* "ripe" to *chih* 執 "hold" has been accepted so universally that most editors forget to mention that it is an emendation at all (Liang, T'an, Kao, Liu). 2. *Chih* is throughout *Mo-tzü* frequently corrupted to *hsin* 心 (Sun 221/5 bis, 361/9, 370/2); here we may suspect the same corruption with an added stroke.)

"C. The 'necessary' is the unending.

"E. It is said of cases where complements are 'ripe'. (For example, elder brother and younger brother.) Of a thing so in one case, a thing not so in one case, that it stays as this is unnecessary, that it is this or is not is necessary."

Are we taking a questionable liberty in translating the common Chinese

word *pi* "sure, certain" by the logical term "necessary"? The Mohist does occasionally use *pi* of being sure to do something (as in B 38 必獨指善所舉 "Be sure to point only at what I mentioned"), and in A 3 he declares that all knowledge is *pi* "certain", presumably not only knowledge by *shuo* 說 "explanation" but also by observation and report (the three sources of knowledge distinguished in A 80). But he is concerned primarily with knowledge by explanation; what kind of reasoning does he recognize as certain? We find in fact that whenever he uses *pi* or *pu pi* of an inference a Westerner would agree that it is logically necessary or unnecessary, with the one qualification that like Western philosophers until the eighteenth century he confuses logical and causal necessity (Cf. B 25 加重於其一旁必捶 (=垂) "If you lay a weight on one side of it, it will necessarily decline."). There are some fifty examples, and since *pi* when used adverbially does not attract attention we shall make a point of italicizing it in all quotations. It is to be remembered that the authors of the *Canons* and *Explanations* have no conception of the proposition as anything but a complex name. For them any example of the pattern "p *pi* q" (if p, necessarily q) will express a relation between two names, with q as the complement of p; when the implication is two-way (as in "If X is the elder brother Y is the younger, if Y is the younger X is the elder") they see only two names both of which are complements, "elder brother" and "younger brother".

A 89 (10/11A/2) 兄弟, 俱適也。

"In the case of elder brother and younger brother, both are complements."

"Cases where complements are ripe" may therefore be understood as a way of saying "cases where implication is binding" (we shall consider later the significance of *shou* "ripe").⁶ It would cover one-way as well as two-way implication, since the phrase "both are complements" in A 89 suggests that there are also pairs in which only one member is complement (for example, a daughter must have a father but a father does not necessarily have a daughter). Of all the objects of knowledge, only such relations between two terms are "unending", eternal, invulnerable to the vicissitudes of time.

Two terms are said to "follow from each other" (相從 EC 3, A 92) or "dismiss each other" (相去 A 92), or to allow the possibility of "dismissing one without the other" (偏去 B 4, 7). But even when mutually dependent they are two different terms.

B 4 (10/3A/8) 不可偏去而二, 說在見與(俱)*倪¹, 一與二, 廣與(循)*脩²。

(12A/7) 見(不)見離, 一二不相盈, 廣*脩堅白³。

(Notes: 1. This graph is attested only in EC 2 quoted below, where it seems to be *hsein* 現 (G (6) 155). If so, the peculiar radical has elsewhere been eliminated by graphic standardization, as in the present *Explanation*.

⁶ Cf. p. 177 below.

2. For other examples in *Mo-tzu* of this common error, cf. Sun 24/3, 189/4, 206/7. 3. *Chien-pai*, a technical term for properties such as hardness and whiteness which are different but mutually pervasive, defined among the geometrical terms (A 66 堅白, 不相外也。"Chien-pai is not excluding each other"). Faith in the authenticity of the *Essay on hard and white* in *Kung-sun Lung tzü* 公孫龍子 (one of the three essays forged between A.D. 300 and 600) has made it impossible for previous editors to deal successfully with this passage. Cf. G (1) 160, (3) 362, 367-8.

"C. Even when one cannot be dismissed without the other, they are two. Explained by: seeing and appearing, one and two, length and breadth."

"E. Seeing and appearing are apart, one and two do not fill each other, length and breadth are 'as-hard-to-white'."

The two kinds of necessary relations, one-way and two-way, are used to distinguish two kinds of *ku* 故 "reason" (used throughout the dialectical chapters both of logical condition and of cause): as in B 4, one of the examples is "seeing and appearing":

A 1 (10/1A/3) 故, 所得而後成也。

(6A/7, 8) (故)。「小故」, 有之不必然, 無之必不然。(最前之)¹體也。(若有端)。「大故」, 有之必(然)², 無(之必不)³然。(若見之成見⁴也)。

(Notes: 1. Conjecturally restored from the definition of *tuan* "starting-point": A 61 端, 體之無*厚而最前者也。"The 'starting-point' is the dimensionless unit which precedes all others". 2, 3. Restored following Sun (Sun 209/3). 4. Probably originally distinguished as *hsien* "appear" by the "man" radical, as we inferred in B 4.)

"C. A *ku* (reason/condition/cause) is what something must get before it will be brought about.

"E. 'Minor condition': having this, it will not necessarily be so; lacking this, necessarily it will not be so. It is the unit (which precedes all others(?)). (Like having a starting-point.)

"Major condition': having this, it will necessarily be so: lacking this, necessarily it will not be so. (Like the seeing bringing about the appearing.)"

The minor condition is what for Western logic is a necessary condition (for example, the starting-point without which I cannot measure), the major condition is a necessary and sufficient condition (for example, not only must someone see X for X to appear, no one can see X without X appearing). In the series of *Canons* analysing ambiguous words (A 76-87) the necessity of the relation is used to distinguish two senses of *shih* 使, "to commission" and "to cause":

A 77 (10/2A/3, 4) 使。謂, 故。

(9B/8-10A/1) (使)。令[謂], ¹「謂」也。不必成。

濕, ²「故」也。必待所爲之成也。

(Note: 1. Delete following Liang, Kao, Liu. 2. Dampness is frequently mentioned in pre-Han texts as a cause of illness: cf. *Chuang-tzū* ch. 2 (HY 6/2/67): 民溼寢, 則腰疾偏死。"When people sleep in the damp their waists hurt and they are numbed." Illness is the stock example of an event with more than one possible cause, for example a wound (B 9) or drinking to excess or the heat of the sun (B 10); the first of the three *Universal love* chapters (*Mo-tzū* ch. 14) begins by comparing the sage seeking the causes of disorder to the physician seeking the causes of sickness.)

"C. *Shih*. To tell. The cause.

"E. To give orders is 'to tell'. The thing does not necessarily come about. Dampness is 'the cause'. It is necessarily required that what it does comes about."

Although the Mohist often uses *pi* "necessarily" of causal relations, it would appear that what is *pi* is the inference from event A to event B on the plane of names, not the relation on the plane of objects. (For a necessity inherent in the object he uses another word, *ku* 固: B 38 固不能獨指。"inherently unable to point at it alone" B 39 固不可指也。"inherently impossible for it to be pointed out".) Obviously a man is not bound to fall ill if he sleeps in the damp; the point is that we cannot describe the damp as *shih* "causing" unless he does fall ill, but can describe an official as *shih* "commissioning" even if he disobeyed. That the Mohist uses *pi* strictly of the inference is plain from a *Canon* refuting a fatalist argument:

B 51 (10/3B/8-4A/1) 且然不可正, 而不害用工。說在宜。
(18A/1, 2) (且)。且(然)¹必然, 且已必已, 且用工而後已者, 必用工(而)²後已。

(Notes: 1, 2. Restored on grounds of parallelism.)

"C. What is about to be so incorrigible, but this is no objection to exerting effort. Explained by: the appropriate thing to do.

"E. If it is about to be so it is necessary that it be so. If it is about to end it is necessary that it end. That which cannot end unless you are about to exert effort necessarily does not end unless you do exert effort."

The fatalist who said that "If it is about to be so it is necessary that it be so" was no doubt using *pi* in its vulgar ordinary sense of "sure, certain", and supposing himself to be demonstrating that it is inherent in the present situation that all future events will be so. But the Mohist (who would presumably phrase the fatalistic conclusion as *ku jan* 固然 "It is inherent in the situation that it be so", not *pi jan*) sees clearly that what is necessary is simply the deduction from "It is about to be so", and ingeniously uses it to deduce the opposite of the fatalist's claim.

Necessity, as we have noticed, implies a conjunction of two terms. This conjunction is called *ho* 合, and a *Canon* on the meaning of *ho* distinguishes necessary conjunction from the tallying of similar things which is either exact (*cheng* 正) or in the appropriate respects (*yi* 宜):

A 83 (10/10A/8-10B/2) 非彼必不有, 「必」也。聖者, 用而勿必。 「必」也者, 可(而)¹勿疑。*假²者, 兩而勿偏。

(Notes: 1. Restored on grounds of parallelism. The Mohist's strict use of *wu* before objectless active verbs (G (5) 78) makes *k'o wu* a syntactically unacceptable combination. 2. This emendation is explained in the appendix.)

"If without the other necessarily there is not, the conjunction is 'necessary'. The judgments of sages, employ but do not treat as necessary. The 'necessary', accept and do not doubt. Those which are the converse of each other, apply on both sides, not on one without the other."

The remarkable statement that the judgments of sages are not to be treated as necessary (which Sun and most other editors find so improbable that they arbitrarily emend the text) becomes intelligible only when we appreciate that for the Mohist the example of Yao no longer applies, but the logically necessary is invulnerable to time. "If without the other necessarily there is not" would cover one-way as well as two-way relations; in two-way relations the terms are the converse of each other (*fan*), as in the case of younger and elder brother. The concept of converse relations is the basis of the Mohist theory of disputation (*pian* 辯):

A 73 (10/2A/1) *假, 不可兩不可也。
(9A/6) (*假)。凡牛, 樞¹非牛, 兩也。無以², 非也。

(Notes: 1. *Ch'ü* 區 "divide off from others, group separately" appears in the dialectical chapters disguised by a variety of radicals (樞, 樞, 歐). Cf. B 12 歐物一體也 "Things marked off as a group are one unit." 2. *Wu yi* is a technical term, which I take to be "lacking that by which (one judges something to be X)". Cf. B 34. C. 知知之否之足用也*辯, 說在無以也 "It is a fallacy that the knowledge of whether one knows something or not is sufficient to act on." Explained by: lacking the characteristics (of knowledge)." E(智)。論之, 非智無以也。"When we sort out one from the other, the non-knowledge lacks the characteristics.")

"C. Being the 'converse' of each other is if inadmissible then on both sides inadmissible.

"E. All oxen, and non-oxen marked off as a group, are the two sides. What lacks the characteristics is not."

A 74 (10/2A/1, 2) 辯, 爭*假也。辯勝, 當也。
(9A/6-8) (辯)。或謂之「牛」, 或謂之「非牛」, 是爭*假也。
是不俱當, 不俱當必或不當。(不若當「犬」)

"C. 'Disputation' is debate over converse terms. Winning in disputation is fitting the fact.

"E. One calling something 'ox' and the other 'non-ox' is 'debate over converse terms'. Such being the case they do not both fit the fact; and if they do not both fit, necessarily one of them does not fit. (Not like fitting 'dog')."

B 35 (10/5B/4) 謂辯無勝必不當, 說在辯。

(15B/6-16A/2) (謂)。所謂，非同也則異也。同則或謂之「狗」，其或謂之「犬」也，異則或謂之「牛」，(牛)*其¹或謂之「馬」也，俱不勝，是不辯也。「辯」也者，或謂之是，或謂之非，當者勝也。

(Note: 1. Corrected on grounds of parallelism.)

"C. To say that there is no winner in disputation necessarily does not fit the fact. Explained by: disputation.

"E. The things that something is called are either the same or different. In a case where they are the same, one man calling it 'whelp' and the other man 'dog', in a case where they are different one calling it 'ox' and the other 'horse', and neither winning, is failure to engage in disputation. In 'disputation', one says it is this and the other that it is not, and the one who fits the fact is the winner."

It is the essence of disputation that there must be only two alternatives, so that one must be right and the other wrong. A Westerner would be inclined to think of it as debate over contradictories, "It is an ox" and "It is not an ox"; but the Mohist thinks of "oxen" and "non-oxen" as converse terms naming the two classes into which all things are divided, the point at issue being which is which. In all true disputation, "necessarily one of them does not fit", and of equal necessity the other does; it follows that "to say that there is no winner in disputation necessarily does not fit the fact". As the Mohist has already observed in his *Explanation on pi* "necessary", "being this or not is necessary" (A 51 是非必也). But is he saying merely that X necessarily is either an ox or not an ox? Or does he mean that the winner in disputation establishes that X necessarily is an ox, or necessarily is not?

To answer this question we must consider the Mohist's strictly nominalist theory of naming. He certainly does not think that there is a necessary conjunction of name and object; indeed this point is made explicitly in the first sentence of the later treatise *Names and objects*:

NO 1 (11/4B/6) 名實不必(名)*合。

(Note: Emended following Chang Ch'i-huang 5B/5. Cf. A 80 名實耦, 「合」也 "The mating of name and object is 'conjunction'.")

"Name and object are not necessarily conjoined."

He does however believe that if we name the object X "horse", and Y is similar to X, the conclusion that Y is a horse will necessarily follow from X being a horse. There is also one name, "thing", which necessarily applies to all objects, irrespective of similarity:

A 78 (10/2A/4) 名。達，類，私。

(10A/1-3) (名)。「物」，達也。有實，必待(文多)*之¹*名²也。命之「馬」，類也。「若實」也者³，必以是名也。命之「咸」，私也。是名也止於是實也。聲出口，俱有名。(若姓(宇)*字⁴)。

(Notes: 1. For the near demonstrative adjunct the Mohist always uses *chih* (frequently corrupted to *wen* 文), never *ts'ü* 此 (G(5) 74). 2. Emended to agree with the two parallel sentences which follow. 3. *Yeh che* is a quotation device, in all other cases following a word directly quoted from the *Canon* (G (5) 101-103). 4. These two characters are also confused in B 63).

"C. *Ming* (name). Unrestricted. Classifying. Private.

"E. 'Thing' is unrestricted; whenever there is an object, it necessarily requires this name. Naming something 'horse' is classifying; for 'like the object' one necessarily uses this name. Naming someone 'Jack' is private; this name stays confined to this object. Whenever the sound issues from the mouth the name is present. (Like surname and style-name.)"

To decide whether some object is or is not an ox we therefore have only to show that it is like (*jo* 若) something that we take as its standard (*fa* 法). The problems of fitting an object to its standard are discussed in A 94, 95; in the case of "black man", for example, some of the man may be black and some not.

A 70 (10/1B/7) 法，所若而然也。

(9A/5) (法)。意規員 (= 圓) 三也，俱可以爲法。

"C. The 'standard' is that in being like which something is so.

"E. The idea, the compasses, a circle, all three may serve as standard."

An idea (*yi*) is conceived by the Mohist as a mental picture conveyed by words from speaker to hearer.⁷ Although a circle can be recognized by one's mental picture of it, the idea could serve as a standard in debate only as embodied in a definition (A 58 圓，一中同長也。 "Circular' is having the same lengths from one centre"), so it may be assumed that the definitions of A 1-75 are one kind of standard. However, it is a matter of indifference whether one compares the circular object with the definition, with the compasses or with an actual circle. The important point is not what one chooses as standard but that one has a definite standard. At first sight it may seem that the Mohist has delivered himself to the relativism of Chuang-tzu's *Essay on making things equal*; whether something is or is not an ox depends entirely on the original arbitrary choice of a name. But on closer inspection one sees that by the Mohist account disputants who start from different standards will not be disagreeing; there is no contradiction in saying that what by my standard necessarily is an ox by your standard necessarily is not. It will no doubt be desirable that disputants agree as much as possible over standards, but only as a matter of practical convenience.

A possible objection to the Mohist's nominalism would be that by his account the name "horse" does not tell us what the object is, merely that it is like some other object. There is one *Canon* which seems to be an answer to this objection. If an object is like a white object in colour it necessarily is

⁷ For *yi* "idea", cf. A 14, 70. B 38, 41, 57, 58. NO 3, 9, 10.

white; the proof is that in disputation over the colour of an object it is sufficient to show that in colour it is like some white thing (which would be its standard in the same way that another circle can be standard for a circle):

B 70 (10/5A/6, 7) 聞所不知若所知，則兩知之。說在告。

(20A/6-26B/3) (聞)。在外者所〈知也，在室者所〉¹ 不知也。或曰，「在室者之色若地其色」。地所不智若所智也。猶「白若² 黑也，誰勝³。是若其色也，若白者必白」。今也⁴ 智其色之若白也，故智其白也。夫名以所明正所不智，不以所不智疑所明。(若以尺度所不智長)。外觀智也，室中說智也。

(Notes: 1. This restoration (Liang, Chang Ch'ün-yi, Kao, Liu) is necessary because the unknown object is later said to be inside the room. The scribe's eye has slipped from one *so* to the next. 2. *yo* "or". For its use as a disjunctive particle, cf. G (5) 109. 3. *sheng* "win" (in disputation), as in A 74, B 35, quoted above. 4. There is the same contrast of *chin yeh* "In the present case" and *yu* "It is as with" in B 27, 78.)

"C. If you hear that something you do not know is like something you do know, you know them both. Explained by: informing.

"E. A thing outside you do know, the thing in the room you do not know. Someone says: 'The colour of the thing in the room is like the colour of this,' so that the thing you do not know is like the thing you do know. It is as with 'White or black, who wins? This is like its colour, and what is like a white thing is necessarily white.' In the present case too you know that its colour is like the white, and therefore know that it is white. A name by means of something you understand determines something you do not know, it does not utilize the thing you do not know to cast doubt on the thing you understand. (Like measuring an unknown length by means of a footrule.) What is outside, you know by experience; what is in the room, you know by explanation."

It seems then that "Y is an ox" will be necessary as the implication, in the Mohist's terminology the complement (*ti*), of the "X is an ox" affirmed of a similar object chosen as standard. This throws light on an obscure fragment preserved at A 22:

A 22 (10/1B/7) 生，刑 (=形) 與知處也。

(7A/8) (生)。橙之生商不可必也。

"C. 'Life' is the body sharing the location of the intelligence.

"E. . . (?)"

Since most of the succeeding *Explanations* are missing, mutilated or misplaced as far as A 38, it is likely that the fragment was placed here only because it happens to contain the word *sheng* defined in the *Canon*. There is a suitable place for it in the section following A 38 (arbitrarily transposed by T'an and numbered A 88):

A 88 (10/2B/2) 同，異而俱〈同〉於之一也。¹

(8A/2, 3) (侗)。二人而俱見是橙也²。(若事君。)

〈橙之生商³不可必也。〉

(Notes: 1. This is the last of a series on ruler and subject (A 34-38), and the *t'ung* (which judging by the *Explanation* was distinguished from *t'ung* "same" by the "man" radical) is probably that of *shang t'ung* 尙同 "conforming to those above", the doctrine expounded in *Mo-tzü* ch. 11-13. There the usual formula is 尙 (/上) 同於 (/乎) 天/天子/國君 "conform to Heaven/the Emperor/the ruler of the state who is above". We should probably restore *t'ung* "be the same" after *chü* "all, both" in the *Canon*, since *chü* is never found elsewhere in the dialectical chapters without a succeeding verb. 2. Embedded "X Y yeh" after *chien* "see" ("see that this is a pillar"). For the syntax, cf. G (5) 131-3, (6) 148, 149. 3. Vulgar graph for *ti* 商. (see the Appendix).)

"C. 'Agreeing' is being different but both thinking the same with regard to this one thing.

"E. They are two men but both see that this is a pillar. (Like serving a ruler.) The pillar's engendering of the complement is not to be treated as necessary."

This remains obscure; but the *sheng* "engender/raw" seems to be the counterpart of the *shou* "ripen/ripe" of A 51, also obscure (謂*齒孰者也 "It is said of cases where complements are ripe"). We may risk a guess as to their significance. According to the account of naming in A 78, the name "pillar" given to X necessarily applies to everything similar to X. Then calling Y a pillar is necessary as the complement of calling X a pillar. Ordinarily we would not hesitate to call Y a pillar on sight, without bothering to appeal to a standard; but the complement as "engendered" by the object itself is unnecessary, and becomes necessary only after being "ripened" by comparison with the standard. Since the two men may have different standards their agreement implies something more than that both have seen the same object; they could both see it without agreeing on what it is.

We have noticed that in Mohist writings earlier than *Names and objects* there is no conception of the proposition, only of the name. In the sections on disputation quoted above (A 74, B 35) to say "It is an ox" is conceived as "calling" (*wei* 謂) the object an ox, not as affirming a proposition about the object. What for us is a proposition entailed by another proposition is for the Mohist a name which is the complement of another name. Necessity is conceived as belonging to logical relations between names, but not to the relation of name to object; and it is to be noticed throughout the solutions of specific logical problems (B 32-82) that different terminologies are used for the deductions of name from name, which are "admissible" (*k'o* 可), or "inadmissible" (*pu k'o* 不可), and the descriptions, applications of name to object, which "fit the fact" (*tang* 當) or "err" (*kuo* 過). The Mohist is fully aware of the distinction between the realms of logic and of fact, and also of a

relation between them, that what is logically inadmissible cannot fit the fact, exhibited in the last sentence of the following passage:

B 71 (10/5A/8) 以言爲盡諄，諄。說在其言。

(20B/3-5) (以) 諄，不可也。(出入)*之*人¹之言可，(是不諄)²，則是有可也。之人之言不可，以³當必不審。

(Notes: 1. Emended on grounds of parallelism with the next sentence.

2. This parenthetic phrase looks like a gloss, probably on the next phrase.

3. Yi for yi wei 以爲 "consider as" (G (5) 122).)

"C. To claim that all saying refutes itself is self-refuting. Explained by: what he says himself.

"E. To be self-refuting is to be inadmissible. If what this man says is admissible, there is saying which he recognizes as admissible. (Gloss: so not self-refuting). If what this man says is inadmissible, to suppose that it fits the fact is necessarily ill-considered."

III. Hsien 先 "a priori"

There are six passages in the dialectical chapters which relate to the question of "a priori" knowledge. Most of them are very difficult, and have been variously explained by commentators, who have not noticed certain recurrent phrases which connect them:

(1) Hsien chih 先知 (A 92, B 57), "know beforehand": hsien chü 先舉 (B 38), "refer to beforehand": hsien yü wu 先欲惡 (EC 2), "desire or dislike beforehand".

(2) Chih shih 知是 (A 92, B 38), "know what it is", contrasting with chih chih 知之 "know about it" (B 38).

(3) Wei k'o chih 未可知 (A 75, B 58. Cf. also B 73), "not yet knowable" (not knowable without further information), which is not to be confused with pu k'o chih 不可知 (cf. B 10) "unknowable".

(4) Ch'eng 城 (A 92), "city-wall": ch'iang 牆, 墻 (A 75, EC 2), "wall".

The wall is evidently one of the stock examples which recur throughout the dialectical chapters, each of which has a constant significance (ox, horse, dog, crane, pillar, stone). The significance of a wall in pre-Han literature is often that one cannot see what is on the other side of it (Hsün-tzū 荀子 HY 48/12/94 牆之外目不見也 "What is outside the wall the eye does not see". Cf. Analects 19/23, Lao-tzū 47).

Now outside the Mohist dialectical writings hsien chih is used merely of foreknowledge of events. When Wang Ch'ung 王充 (A.D. 27-c.100) derides the claim that the sage has foreknowledge independent of experience, he asks:

Lun heng 論衡 (SPTK) 26, 5B/3-5 使一人立於牆東，令之出聲，使聖人聽之牆西，能知其白黑短長鄉里姓字所自從出乎。

"Suppose a man stands east of a wall, and we tell him to give a shout, and suppose the sage listens to it from west of the wall; is he able to

know whether the man is black or white, short or tall, his district, village, surname, style-name and who his ancestors were?"

The Mohist uses the example of the wall in this way in the most easily intelligible of the six passages:

A 75 (10/9B/4, 5) 牆外之利害未可知也，趨之而得(力)*刀¹，則弗趨也，是以所疑止²所欲也。

(Notes: 1. Emended to tao "coin", a word found in B 30, following Sun (Sun 217/5). 2. For the causative chih "cause to stay, fix", cf. p. 168 above.)

"If whether there is benefit or harm outside the wall is not yet knowable, but should you hurry for it you will get the money, then to refuse to hurry for it is to fix which you prefer on the grounds of what you doubt."

Here, if we consider the passage in isolation, nothing forbids us to take wei k'o chih in its ordinary sense, "not knowable without further information". But from the next example it seems clear that hsien chih "foreknow" has assumed a technical sense. The logician is imagining a circle on the other side of a wall, and asking himself how much he knows about it without going over the wall to look at it:

A 92 (10/11A/4) 超城員止也。相從相去，先知是可知。

"When we go over the city-wall the circle 'stays' [that is, as we saw on pp. 168-9, the name 'circle' fits concrete objects throughout their duration]. From the things that follow from each other or exclude each other, it is admissible that we know 'a priori' what it is."

We know "a priori" whether something is or is not circular, by whether it agrees or disagrees with the idea (yi 意) which serves as standard, embodied in the definition of the circle in A 58. It is circular if it exactly "matches" a circle (wu 五=伍,⁸ a word which reappears in B 58, 76 written with the graph 仵):

A 96 (10/3A/1, 1) 正¹無非。

(11B/2, 3) (正)。五諾皆(=借)²(人)*入³於知。有說過五諾，(若員無直)，無說用五諾，若自然矣⁴。

(Notes: 1. Cheng "exact", one of the three kinds of ho 合 "conjunction" distinguished in A 83. Cf. A 56 正南 "due South". 2. Chieh 'all' is not used pre-verbally in the dialectical chapters, which regularly employ chü 俱 (G (5) 84, 85). Cf. Kuo yü 國語 (Chin 2) SPTK 8/5B/3 借出借入 "go out together and go in together". 3. Graphs regularly confused in Mo-tzū (Sun 87/14, 331/7, 367/14 and passim); the syntax requires a verb at this position. 4. The perfective final particle shows that jo tzū jan yi is not another of the

⁸ The radical of wu "match" is often omitted in the phrase where it is most familiar, the Legalist formula ts'an wu 參伍/五 "align and match" (Chu 1799). Wu Yü-chiang's collation shows that there are always variants without the radical for the graph 伍 in Mo-tzū, whether representing a surname or wu "platoon" (Wu 15/10A/8, Wu Appendix 1, 1B/4-6). For the interchange of the phonetics 五 午 cf. M.409, def. 3, 2703, def. 2, 7.

Mohist's parenthetic illustrations, but as in *Kuan-tzū* ch. 2 SPTK 1/6B/7 其事若自然 "Affairs will be as though running themselves.")

"C. The exact nowhere is not.

"E. Matching and assent enter the consciousness together. When an explanation is offered and you assent to more than that they match (for example, to a circle being nowhere straight), or when no explanation is offered but you assent on the basis of the matching, it has become as though it were so of itself."

In addition to the idea of the circle, the Mohist discusses the ideas of the pillar and of the hammer, in the paired *Canons* B 57, 58. Both passages are obscure, and have been variously interpreted by previous editors; but we begin to find our bearings in them when we perceive that the idea of the pillar is described as *hsien chih* "known 'a priori'", the idea of the hammer as *wei k'o chih* "not knowable 'a priori'".

B 57 (10/4A/8-4B/1) 以(樅)*樅¹爲桴²,於(=惡)³以爲(無)*先⁴知也。說在意。

(18B/2-4) (以)。樅之桴也,見之其於意也不易⁵,先智意相(=想)也。若樅輕於秋(=楸)⁶,其於意也洋然。

(Notes: 1. Emended from the *Explanation*. 2. Following the reading of the Mao K'un 毛坤 edition (A.D. 1581); in the Taoist Patrology edition the phonetic 專 is recurrently corrupted to 專. 3. Wu "in what?" (G (5) 100), written with the graph 於 as noticed by T'an in B 42. 4. Emended from the *Explanation*. The graphs 無 (originally written 无?), 先, are similarly confused in B 73 (Sun 242/1). 5. Cf. *Chuang-tzū* ch. 33. (HY 94/33/79) 易人之意 "(The sophists) changed men's ideas" *Hsün-tzū* ch. 21 (Liang 296/14) 心不可劫而使易意 "The mind cannot be made by force to change its ideas". 6. *Ch'iu* (楸, 萩, 秋, M.31333 def 1/2, 3), "catalpa". Cf. NO 3 意是樅之木 "having the idea of the wood of this pillar". 7. I take *yang-jan* as the *yang-yang-jan* which is also written with the graph 養, "not knowing where go to, having nothing to depend on" (M.17363/143/7, 44144/167).)

"C. When we deem a pillar round, the place at which we deem is known 'a priori'. Explained by: the idea.

"E. In the case of the pillar's roundness, when we see it, the place for it in the idea is unchanged, for we know 'a priori' the idea and image. If the pillar were lighter than its catalpa-wood, the place [for lightness] in the idea would be undecided."

B 58 (10/4B/2) 推(=椎)¹之意未可知。說在「可用」,「過件」²。(18B/45) 段(椎)錐(=鍛椎)³俱事於⁴履,「可用」也。成繪屨過椎,與成椎過繪屨同,「過(件)*件」⁵也。

(Notes: 1. Although most editors follow Sun in starting this *Canon* two places later, Wu Yü-chiang is certainly right in making the division before *ch'ui* "hammer" (推=椎: examples in Chu 0085 bis, 0251, 0072); otherwise

the *Explanation* would have no head character. 2. *Kuo wu* "exceeding the matching", the phrase written 過五 in A 98 quoted above. 3. *Tuan ch'ui* (=鍛椎), as in *Han Fei tzū* ch. 35 (Ch'en 783/-4) 椎鍛者所以平不夷也。"Hammer and block are the means of levelling the uneven". 4. *Shih yü* "employ on". Cf. *Han Fei tzū* ch. 20 (Ch'en 359/-2) 上不事馬於戰鬪逐北 "The ruler does not employ his horses on fighting battles and hunting down the fleeing." 5. Emended from the *Canon*.)

"C. The idea of a hammer is not knowable 'a priori'. Explained by: usability: exceeding what matches.

"E. Hammer and block both being employed on the shoes is their 'usability'. That to complete [the idea of] decorating shoes you exceed the [idea of] the hammer, just as to complete [the idea of] the hammer you exceed [the idea of] decorating shoes, is 'exceeding what matches'."

What is the significance of the pillar, a stock example we have already noticed in A 88?⁹ It is again connected with *yi* "idea" in NO 3 (11/4A/5) 意樅非意木也,意是樅之木也 "To have the idea of a pillar is not to have the idea of wood; it is to have the idea of the wood of this pillar". In A 88 too the *t'ung* of *shang t'ung* "conforming to those above" was presumably conceived as agreement over ideas (cf. *Sun-tzū* 孫子 ch. 1, SPTK 1/3B/6. 道者令民與上同意 "The Way causes the people to conform to the ideas of those above them."); it would be because they share the idea of a pillar that "both see that this is a pillar." It would seem then that a pillar is the stock example of something recognized at sight from an idea or mental picture shared by everyone who knows the name. A hammer on the other hand is something defined not by its visual appearance but by its function, its "usability", and we may fail to recognize a hammer of unfamiliar shape. To form a mental picture of a hammer in use we have to visualize the block and the shoes as well; unlike the idea of a circle, which exactly matches actual circles, this "exceeds what matches".

But even in the case of a pillar there is a problem. How have I succeeded in visualizing a pillar without committing myself as to whether it is round or square, wood or stone? If the material which composes it is left out of the idea, the pillar I imagine must be lighter than the thing of catalpa-wood I recognize by it. The Mohist's answer is apparently that what we visualize is a scheme with vacant places filled, for example, by the roundness of an actual pillar. This scheme would be what the *Interpretation of Lao-tzū* in *Han Fei tzū* calls the *li* 理 "arrangement, structure" (Ch'en 365/1 理者,成物之文也。"The *li* is the pattern of a completed thing" 369/1 凡理者,方圓短長麤靡堅脆之分也。"All *li* is an apportioning of squareness or roundness, shortness or length, coarseness or fineness,

⁹ Cf. p.177 above. There are other references to pillars in disputation in *Chuang-tzū* ch. 2 (HY4/2/35), *Hsün-tzū* ch. 22 (HY84/22/32).

hardness or softness", that is of figure, dimension, texture and pliability).

We may now examine a pair of *Canons* on the mutually pervasive properties typified by hardness and whiteness, which commentators have tried to explain in the deceptive light of the spurious essay on *Hard and white* in *Kung-sun Lung tzu*.

B 37 (10/5B/6, 7) 於一有知焉, 有不知焉。說在存。

(16A/2-4) (於)。石一也, 堅白二也而在石。故有智焉, 有不智焉, 可。

"C. In one thing there is both a known and an unknown. Explained by: being constituents.

"E. A stone is one, hardness and whiteness are two but are in the stone. Therefore it is admissible that in it there is both a known and an unknown."

The next *Canon* is worded in direct relation to B 37:

B 38 (10/5B/8) 有指, 於二而不可逃。說在以二(參)*參。

(Note: 1. Emended from the *Explanation*.)

"C. Pointing out one of them is inescapably in two things. Explained by: using the two of them to align."

Before examining this *Canon* we must turn to the *Explanation*, which shows that it is designed to answer an objection to B 37. The *Explanation* divides into two parts, objection and answer (an arrangement of which there is another example in B 73: I failed to appreciate this point when translating it in G (3) 359). We begin with the objection:

(16A/4-6) (有指)。子智是, 有(=又)¹智是吾所先舉重², 則子智是而不智吾所先舉也, 是一謂有智焉, 有不智焉也。

(Notes: 1. *Yu* "again" is always written with this graph in the dialectical chapters. 2. *Ch'ung* "identical", one of four kinds of sameness distinguished in A 86 二名一實, 「重」同也。"There being two names and one object is the sameness of 'identity'...")

"E. If you know what this ['a white thing'] is, and know in addition that the object which is this is identical with that which I referred to 'a priori' ['a hard thing'], then the fact that you do not by knowing what this is know that which I referred to 'a priori' implies that even in one of the things the object is called there is both a known and an unknown."

Here one of the two properties of the stone is distinguished as *hsien chü* "referred to 'a priori'." The objector does not tell us which this is, but it is surely the hardness; if we know that an unseen object is a stone we know that it is hard, but we do not know whether it is white until we look at it. The Mohist has explained that we can know of the hardness without the whiteness because they are two distinct properties in the one stone (the whiteness presumably as a substitutable property like the roundness of the pillar). This is not obvious to the objector, who is perhaps misled by the strong tendency in Chinese to think of nominalized *pai* or *pai che* 白者 as

referring to the thing which is white rather than to the colour itself. (For example, the "White horse" essay of Kung-sun Lung 公孫龍 uses *pai* and *pai che* throughout as both "whiteness" and "what is white"). He replies that even in a white thing there can be both a known and an unknown; we can know that it is white without knowing whether it is hard. The Mohist responds by asking him to point out white things:

(16A/6-16B/3) 若知之, 則當(=嘗)¹指之。智告我, 則我智之。兼指之, 「以二」也。衡(=橫)指之, 「參」直之也²。若曰, 「必獨指吾所舉, 毋舉吾所不舉」, 則(指)³者固不能獨指。所欲相(=想)⁴不傳, 意若未校。

且其所智是也, 所不智是也, 則是智是之不智也。惡得爲一謂而有智焉, 有不智焉。

(Notes: 1. As in B 61 quoted above p. 167. Pre-verbal *tang* "ought" is not used in the dialectical chapters. 2. Cf. the definition of *chih* "straight" in A 57: 「直」參也。"Straight" is in alignment." 3. Restored following Sun (Sun 233/6). 4. As in B 57 quoted above p. 180.)

"If you know of them, try to point them out; if you know and inform me, I shall know of them. You will point at them in combinations [things both hard and white], which is 'using the two of them'. You will point at them in crossing directions [at things hard but not white, white but not hard], which is straightening the pointing by 'aligning'. If one says 'Be sure to point only at that to which I referred, and do not refer to anything to which I did not refer' [that is, do not say that you are pointing at a colour], then the man who points is inherently unable to point at it alone. What he wishes one to imagine is not conveyed, it is as though the ideas were not yet co-ordinated.

"Moreover, if what one knows and what one does not know are both this, then this is knowing the very thing one does not know. In what, constituting one of the things an object is called, can there be both a known and an unknown?"

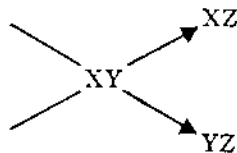
"White" is unlike "stone" in that it is useless to point out a single white thing to someone ignorant of the word (unless one is allowed to use the word "colour" as in B 70 quoted above,¹⁰ which the Mohist here forbids). One has to point out whiteness in more than one thing, an operation which the Mohist, who is as interested in geometry and physics as in logic, conceives after the analogy of the astronomer aligning (*ts'an* 參) two gnomons with the rising and setting sun to determine East and West.¹¹ One must point at combinations,

—→ XY

¹⁰ p. 176 above.

¹¹ Cf. T'an, on A 57.

and point in crossing directions,



so that it is plain that white things are simply stones or horses with whiteness in them.

The Mohists were not interested in constructing an 'a priori' metaphysic. They did however develop an ethical system (discussed in detail in *Later Mohist treatises on ethics and logic*), in which all key words are defined in relation to the undefined words "desire" and "dislike", uses of which are listed in the sequence on ambiguous words (A 76-87). We possess all their definitions except those of words in the ten theses of Mo-tzū (the chapter titles of *Mo-tzū* ch. 8-37). The loss of the latter, which must have been in an earlier document now missing, has deprived us of the definition of *ai* 愛 "love"; but the system is so coherent that we can supply a definition of our own which both fills the gap and fits the Mohist use of the word.

A 84 (10/2A/7) 欲。正，權利，且。惡。正，權害。

"Desire. Directly. Weighing the benefit. Be about to.

"Dislike. Directly. Weighing the harm."

A 26, 27 (10/2A/2, 3) 利，所得而喜也。害，所得而惡也。

"Benefit' is what one is pleased to get". (Since desire precedes the event, the word *hsi* 'be pleased' has to be substituted.)

"Harm' is what one dislikes getting."

A 75 (10/2A/2-3) 爲，窮知而厭 (= 懸) 於欲也。

"To be 'for' something is to give it the most weight in relation to the desires, in the light of all that one knows."

(Love: to desire benefit for a man and dislike harm to him, not for one's own sake (爲己, EC 10) but for the sake of the man he is (爲其人也, EC 11).)

A 7, 8 (10/1A/6) 仁，體愛也。義，利也。

"Benevolence' is loving individually.

"Righteousness' is being beneficial."

(Nearly every word in these definitions is itself defined: *ch'üan* "weigh" (EC 8), *ch'ieh* "be about to" (A 33), *ch'üung* "limit" (A 41), *chih* "know" (A 5), *t'i* "unit" (A 2).)

In *Expounding the canons* there is a reference to what the sage "desires or dislikes 'a priori' for the sake of men" (先爲人欲惡), associated with the image of a wall we have noticed in A 75, 92. If someone is out of sight on the far side of the wall, what does the sage desire on his behalf without knowing anything about him except that he is a man? The answer presumably

is everything which the Mohist has defined in terms of desire - benefit, love, benevolence, righteousness. But the "a priori" system does not show us how to benefit the man; we can know what to do for him only when we go over the wall and observe what will actually benefit him:

EC₂ (11/4B/6) 諸聖人所先爲人欲 (11/5B/3-6A/2) 惡者，人(右) *必以其請 (= 情) 得焉。諸所遭執而欲惡生者，人不必以其請得焉。聖人之拊潤 (= 撫育) 也，仁而無利愛。利愛生於慮。昔者之慮也非今日之慮也。昔者之愛人也非今之愛人也。愛獲之愛人也生於慮獲之利，非慮感之利也，而愛感之愛人也乃愛獲之愛人也。去其愛而天下利，弗能去也。昔之知牆 (= 牆) 非今日之知牆也。(11/3A/8-3B/1) 三物必具，然後足以生 (11/3B/6-8) 天下之利驩。聖人有愛而無利倪 (= 現) 日之言也，乃客之言也。天下無人，子墨子之言也猶在。

(For the annotation, see G (6), 154-5.)

"Anything that the sage desires or dislikes 'a priori' on behalf of men, men necessarily learn from him by means of its *ch'ing* [what it is in itself, what is conveyed by its definition];¹² but in the case of the desires and dislikes born from the conditions they encounter, they do not necessarily learn from him by means of the *ch'ing*. The sage's fostering care is benevolent but without the loving that benefits. The loving that benefits is born of thinking. Yesterday's thinking is not today's thinking, yesterday's love of man is not today's love of man. The love of man involved in loving Jill is born from thinking about Jill's benefit, not from thinking about Jack's benefit; but the love of man involved in loving Jack is the love of man involved in loving Jill. Even if to get rid of the love of them would benefit the whole world one cannot get rid of it. Yesterday's wall to the intelligence is not today's wall to the intelligence. Only when the three things [love, thought, benefit] are present together are they sufficient to generate the enjoyments of benefit in the world. The sage has love but does not have pronouncements which benefit current situations, that is, pronouncements about the transient. If there were no men at all in the world, what our master Mo-tzū said would still be present."

This passage knits together all the themes we have touched on in this paper - the questioned authority of the sages in changing times, the logical necessity which is eternal, the "a priori" and the wall. There was one of the sages whose principles were demonstrable, necessary, applicable to all situations (although empty without factual knowledge of the conditions), our master Mo-tzū himself. They would be valid even if there were no men

¹² For *ch'ing* in pre-Han philosophical terminology, cf. G(4) 259-65.

to apply them to. Only once again in the emotionless writings of the Mohist logicians do we catch this tone of exaltation, in a passage on the same theme (in which I shall have to allow myself one purely conjectural emendation):

B 41 (10/16B/8-17A/1) 且應，必應問之時若應長。應有深淺。天常中，在(兵)*與人長。

"When about to answer, ensure that the time to answer the question is as long as the answer. There are profound answers and shallow answers. Among Heaven's constants its presence is prolonged with man."

The truth established by logic is invulnerable to time. "If there were no men at all in the world, what our master Mo-tzū said would still be present (*tsai*)"; "among Heaven's constants its presence (*tsai*) is prolonged with man."

Now we have noticed that the Mohist's basic example of something known "a priori" is the circle. If the moral concepts are established as "desired 'a priori'" by a chain of definitions deriving from the undefined term "desire", should there not be a similar series leading up to the circle? Let us consider the two words *jo* 若 "like" and *jan* 然 "so", which seem to correspond to "desire" in ethics as the basic undefined terms in the Mohist logic. Throughout Chinese lexicography *jan* has been defined as *ju tz'ü* 如此 or *ju shih* 如是 "like this"; the Mohist himself does not define it, very probably because it was still understood as *ju* or *jo* with a final -N "like it", as *yen* 焉 is *yü* 於 with a final -N, "in it". According to two of the *Canons* we have quoted (A 78, B 70) a common name conveys that an object is *like* the initially named object, and to know an object by explanation is to know that it is *like* something known by experience. *jo* and *jan* are the terms used in the first two of the logical definitions of A 70-5:

A 70 (10/1B/7) 法，所若而然也。

"The 'standard' is that in being like which something is so."

A 71 何，所然也。

"The '(?)' is where it is so."

The quantifiers are defined by putting negatives before *jan*:

A 42 (10/2B/5) 盡，莫不然也。

"'Exhausting' (adverbially, 'all') is of none not so."

NO 5 (11/8A/1) 或也者，不盡也。

"'Some' is not all."

When applied to measurements to be like X or to be so is to be equal to X, and the ordinary term for "equal" (of measurements, weights or love of men) is *hsiang jo* 相若 "like each other" (EC Appendix 3, 5, 6, 7, 13. A 54, B 25, 26). Let us now proceed to the geometrical definitions:

A 57 (10/1A/6) 直，參也。

"'Straight' is in alignment."

A 53 (10/1A/4) 同長，以正相盡也。

"'Same in length' is exhausting each other when laid straight."

(Since *chih* "straight" is limited to paths of lines, it has to be replaced by the more general *cheng* when referring to a straight edge.)

A 54 (10/1A/5) 中，(所自)同長也。

"The centre is (the place from which) lengths are the same."

This *Canon* has an *Explanation* which seems at first sight merely to repeat it in other words:

(10/8B/3) (中)。自是往相若也。

"Distances outward from this are alike/equal."

What is new in the *Explanation* is its last word; the Mohist is reminding us that the definition derives through "same in length" and "exhaust" from the starting-point "like". We now arrive at the definition of the circle:

A 58 (10/1A/7) 圓，一中同長也。

"'Circular' is having the same lengths from a single centre."

We can now appreciate why the Mohist says of the circle in A 92 that "from the things that follow from each other or exclude each other, it is admissible that we know 'a priori' what it is". By the system of definitions with only one untidy item ("Straight", defined by the visual alignment of, for example, one post behind another) the circle is derived from the concept of likeness which is implicit in all knowledge by explanation.

Appendix: The corruption of two technical terms, *FAN* 反 "converse" and *TI* 商 "complement".

One of the main obstacles to progress in the understanding of the Mohist dialectical chapters has been the proneness of editors to play the insipid game of conjuring problems out of existence by arbitrarily emending the text (to be seen at its worst in the *Mo-ching chiao-ch'üan* of Kao Heng, who devotes all his ingenuity and erudition to rewriting the text as he pleases). It is therefore necessary to justify in detail the emendations by which we have restored two unnoticed technical terms.

In any language the development of logic requires the refinement of a special style, syntactically consistent, purged of idiomatic irregularities, uncoloured by rhetoric, compensating for the difficulty of its technical terminology by the simplicity of all other vocabulary. This style is represented in pre-Han Chinese only by the Mohist dialectical chapters and to a lesser extent by the two authentic essays in the *Kung-sun Lung tzü* (the *White Horse* and the *Meanings and things*). Its strangeness constantly tempts us to interpret or emend according to accepted Chinese idiom. But when the language is studied in detail (in G (5) *Grammar of the Mohist dialectical chapters*) it becomes clear that idiomatic smoothness is regularly sacrificed in the *Canons*, *Explanations* and *Names and objects* for the sake of a syntactic system of extraordinary consistency, in which each function is performed by a single particle or grammatical pattern. It is the

precision of the syntax, together with the simplicity of the basic vocabulary, which justifies the hope that the establishment of a firm text will prove to be a practical task. The variety of graphic forms, some of them unique, has disguised the nature of the lexicon, which consists of the simplest and most familiar words in Classical Chinese intermixed with terms peculiar to the craft of disputation. Fortunately most of the graphic problems were solved by Sun Yi-jiang and his successors (a great and unquestionable success of Chinese scholarship in this field). It is by now evident that the later Mohists had graphic conventions distinguishing, for example, *chih* 知 "the intelligence", *chih* 智 "know" and *chih* 恕 "knowledge",¹³ *pi* 比 "put side by side" (A 68) and *pi* 毗 "compare" (B 6), *chien* 見 "see" and *hsien* 現 "appear",¹⁴ and that the graphic confusion of the present text resulted from later scribes omitting or replacing radicals in an attempt to standardize a text which they could not understand.

Most readers of the present study will no doubt be suspicious when they notice me treating *tsai* 在 "be in" as causative (B 15) or as nominalized (B 41), or offering an apparently tortuous interpretation of 於 (= 惡) 以爲 *先知 (B 57) as "wherein one deems is known *a priori*", or translating *fei* 非 without a complement not as "wrong" but as "is not" (A 73, 96). Such interpretations may of course be disputable, but not for the obvious reason, that they seem un-Chinese. Unlike almost all other Chinese writers the later Mohists are logicians who are interested in the concepts of "deeming" (*yi wei*), "presence" (*tsai*) and copulative "not being" (*fei*) for their own sakes, need to manipulate such terms with an unprecedented freedom, and do so frequently. They are able to do so precisely because they have committed themselves to a consistent syntax at the expense of idiom. In other texts *wu* 惡 is so common in rhetorical questions that we hardly notice that it is basically a directive pronoun ("in/to/from what?"); but in the *Canons* and *Explanations* this is its only function, and no other interrogative pronoun performs it.¹⁵ The phrase 惡以爲先知, as we understand it, uses familiar words in a familiar pattern (cf. the immediately intelligible B 41 不知其誰謂也 "not know which he means") to say something that no one but a logician ever needs to say.

Granted that most of the vocabulary is simple, there remains of course the formidable difficulty of identifying the technical terms, and the related problem of explaining the significance of the recurring references to stock examples such as "horse" (the typical common name), "ox" and "non-ox" (the "X" and "non-X" of disputation), "whelp" and "dog" (the stock example of two names applicable to one object). In the present essay we have had occasion to explore three of these (pillar, wall, illness), ignoring the

¹³ A 3, 5, 6. Cf. p. 166 above.

¹⁴ Cf. pp. 170-1, 185 above.

¹⁵ Cf. G(3) 100.

tendency of previous editors to emend them out of existence. Technical terms, being unintelligible to later readers, were especially liable to corruption. Well known examples are the *chih* 恕 "knowledge" of A 6, corrupted to *shu* 恕 twice in the Taoist Patrology (A 6, 89) and nearly everywhere in later editions (as can be seen from Wu Yü-chiang's collation in his *Mo-tzu chiao-chu*); and *ch'ü* 區, 歐, 偃, 樞 "divide off from the rest, group separately" (A 48, 63, 73, B 12, 21, 63), further corrupted to 俱 (from 偃?) as the head character of B 12. This consideration offers one prospect of escape from the arbitrariness of piecemeal emendation. Whenever we identify a technical term, we should scan the text systematically for similar graphs which appear on other grounds to be corrupt.

The graph 反, identified by Sun¹⁶ as *fan* 反 "turn round" with an added radical, appears twice in the summings-up of *Canons*: B 30 說在反 其買 "Explained by: turning the price the other way round": B 72 說在反 "Explained by: turning round". Comparison with the *Explanations* shows that the former refers to an argument that if the money is the price of the grain the grain is also the price of the money (刀糴相爲買 "Money and grain are each the price of the other"), the latter to a similar argument that to call a dog(?) "Crane" is admissible (謂是「糴」(= 糴) 可 "To call this 'Crane' is admissible") but does not make it a crane, since we cannot proceed to call cranes "dogs" (謂彼是「是」也不可 "To call that and this 'this' is inadmissible."). In both cases then *fan* refers to one claim being the converse of another. The single word *fan* in a summing-up would have been unintelligible unless it was recognized as the name of this logical operation, the radical presumably serving to distinguish the logical usage. If so, the possibility arises that the Mohist will have defined the term at some previously unintelligible place among the logical definitions (A 1-6, 70-5).

In A 73 a word is defined which both in A 73 and A 74 appears as *yu* 攸 in the *Canon* and *pi* 彼 in the *Explanation*. Most editors have been content to follow Sun¹⁷ in accepting the latter reading. But the definition is certainly not of *pi* "that". It is however precisely the sort of definition we should expect for *fan*:

A 73 (10/2A/1) †攸, 不可兩不可也。

"Being the 'converse' of each other is if inadmissible then in both cases inadmissible."

It can now be seen that the single example of the graph 攸 in the dialectical chapters (which Sun emended to 權¹⁸) is to be treated in the same way:

A 83 (10/10B/1, 2) †攸者, 兩而勿偏。

¹⁶ Sun 207/4.

¹⁷ Sun 198/-2.

¹⁸ Sun 219/2.

"Those which are the converse of each other, accept on both sides, not on one without the other."

A word which invites similar treatment is *ti* 敵 "mate, match", most familiar in the sense of "the opposite side in war, the enemy". In the military chapters of *Mo-tzu* (ch. 52-71) it is generally written with the graph 適 as far as ch. 62 but with the standard graph from ch. 63. Originally it may have lacked any radical, as in the bronze inscriptions.¹⁹ In the dialectical chapters it may be recognized in three graphs which appear in puzzling but closely related contexts:

(1) (商).

(2) 適 (A 89), the form common in the military chapters.

(3) 商, (A 22) vulgarly written for No. 1, and often graphically indistinguishable from it in bronze forms (Tuan 32, 668).

(4) 臺 (A 51), which three times in one entry in *Fang yen* 方言 SPTK 2/3B appears to be a corruption of No. 1 (Chu 2642). The confusion would have been with a graphic variant of No. 4, 臺 (M.5339).

We quote the three passages without emendations and leave the restored *ti* untranslated:

A 89 (10/11A/2) 兄弟, 俱適也

"In the case of elder brother and younger brother, both are *ti*."

A 51 (10/8B/2) (必)。謂†臺孰者也。(若弟兄)。

"(Necessary). It refers to cases where the *ti* are ripened. (Like younger brother and elder brother.)"

A 22 (10/7A/8) 樞之生†商不可必也

"The pillar's engendering of the *ti* is not to be treated as necessary."

The one straightforward passage is A 89, where Sun already recognized that the word is to be understood as *ou ti* 耦敵 "complement".²⁰ We have considered its significance in the body of the paper; here we shall merely call attention to the common or related words which bind together the three contexts and confirm that we are dealing with a single technical term:

(1) Elder and younger brother (A 51, 89).

(2) Necessity (A 39, 51).

(3) *Sheng* "engender/raw" (A 39) pairing with *shou* "ripen/ripe" (A 51). However we decide to interpret these words, it is unlikely that their relation is accidental; *Names and objects* uses similar metaphors when it describes the proposition as "engendered according to a reason and growing up according to a pattern" NO (10 以故生, 以理長 cf. NO 6 同根之同 "Sameness with the same root").²¹

¹⁹ Tuan 328.

²⁰ Sun 220/-5.

²¹ For the significance of these expressions in *Names and objects*, cf. G(6) 181, 182.