

INTRODUCTION

LATER MOHIST LOGIC, ETHICS AND SCIENCE AFTER 25 YEARS

A. C. Graham's *Later Mohist Logic, Ethics, and Science* was a landmark in the study of classical Chinese thought. By far the most thorough, disciplined, and systematic reconstruction and interpretation of the later Mohist texts ever published, Graham's work opened up new vistas in the study of ancient Chinese philosophy and science.

The later Mohist writings had intrigued readers ever since their rediscovery by Qing dynasty philologists after centuries of neglect. Even a cursory glance through these six books of the *Mo-tzu*¹ 墨子 reveals fascinating remnants of sophisticated theories about knowledge, language, argumentation, ethics, geometry, mechanics, causality, space, time, optics, and economics. The texts thus seemed to contain crucial missing pieces of our picture of ancient Chinese thought. They showed that an influential school of third century B.C. thinkers were strongly interested in the philosophy of language, epistemology, and logic, areas once thought to have played little role in ancient Chinese intellectual discourse. They seemed to hold clues concerning fundamental questions about the character of early Chinese thought and parallels and contrasts between ancient Chinese and Western philosophy and science. And they promised to shed light on technical notions crucial to understanding other ancient texts, such as the *Chuang-tzu* 莊子, *Mencius* 孟子, and *Hsin-tzu* 荀子. Only the later Mohist writings, for instance, give a detailed account of the terminology, procedures, and theory of *pien* 辯 ('disputation'), the major style of argumentation and debate in ancient China. The texts are thus a key to grasping — to cite just one example — the full import of the *Chuang-tzu*'s dazzling 'Discourse on Equalizing Things', which consists partly of a critique of *pien*.

¹ To maintain consistency with Graham's usage, Chinese words in the Introduction have been romanized according to the Wade-Giles system, the standard among scholars until the 1980s. In the supplementary bibliography, the current standard, the Hanyu Pinyin system, has been followed, except in the case of certain proper names.

Little wonder, then, that the early decades of the twentieth century saw a surge of scholarly interest in the later Mohists, facilitated by the 1894 publication of Sun Yijiang's 孫詒讓 comprehensive commentary on the *Mo-tzu* and fueled by contact with Western philosophy and science. Impressed with Western logic and scientific method, Chinese intellectuals such as Hu Shih 胡適 and Liang Ch'i-ch'ao 梁啟超 were eager to explore what Hu called "the development of the logical method" in their own tradition, and the long-neglected later Mohist texts appeared to be records of a pivotal episode in that development. Besides its inherent interest, Mohist thought seemed to be a rich naive source on which to draw in molding a new, modern Chinese identity that preserved traditional characteristics while learning from the West.

Yet the later Mohist texts — two books of brief 'canons'; two of 'explanations' of the canons; the 'Smaller Pick', a largely coherent essay; and the 'Bigger Pick', a collection of fragments — were so corrupt, their grammar so difficult, and their terminology so obscure that much of this rich cache of ancient scientific and philosophical knowledge remained frustratingly inaccessible. Early twentieth-century researchers such as Liang Ch'i-ch'ao, Luan T'iao-fu 樂調甫, and T'an Chieh-fu 譚戒甫 achieved breakthroughs in pinning down the divisions between canons, identifying systematic corruption, and interpreting nonstandard graphs. But despite significant progress in these and other areas, decades of intensive scholarly attention had yet to produce a reliable edition of the text.

Editors typically approached the texts piecemeal, modifying and explicating each canon or explanation until it seemed to make sense; then moving on to the next. Emendation and interpretation depended heavily on educated guesswork, with little attention paid to the immediate or the broader context of each bit of text. Philological and interpretive proposals were seldom constrained by a systematic account of the sources of textual corruption and a coherent, general interpretation of later Mohist philosophy relating it to the central themes and problems of classical Chinese thought. Textual emendation too often lapsed into undisciplined conjecture, interpretation into hasty identification of Mohist concepts with newly familiar Western ones. The result was a plethora of studies proposing emendations and readings of varying plausibility, few of which inspired confidence. One could legitimately doubt whether significant stretches of the text would ever support a genuinely credible interpretation.

Against this background, *Later Mohist Logic, Ethics and Science* represented a monumental step forward. Graham's book was the first to

provide a systematic, detailed analysis of the structure, grammar, and vocabulary of the texts. He placed rigorous constraints on textual emendation, resulting in an emended edition that frequently convinces even where his interpretation of a particular passage may not. His study of later Mohist grammar, technical terminology, and stock examples facilitated interpretation of obscure passages and revealed that many once thought corrupt were intelligible nearly as they stood. And Graham fit these contributions into a coherent, comprehensive interpretation of the major themes of later Mohist philosophy and the details of Mohist semantic theory, epistemology, logic, ethics, and science. His work made these difficult, damaged, yet extraordinarily rich texts more accessible than ever before, contributing tremendously toward the systematic reconstruction of later Mohist thought and deepening our overall understanding of classical Chinese philosophy.

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In retrospect, the major achievements of *Later Mohist Logic, Ethics and Science* fall into three interdependent areas. The first is Graham's philological work in reconstructing the texts and emending aberrant graphs (see §1/2),² much of which stands as a paradigm of incisive, rigorous textual criticism. Building on the insights of Sun Yijiang, Liang Ch'i-ch'ao, and especially Luan T'iao-fu, Graham meticulously reconstructed the stages of the *Canons*' history, traced the likely causes of textual corruption, and methodically established the boundaries of each canon and explanation. Part of his contribution lay in collating, systematizing, and drawing out — in some instances brilliantly — the implications of earlier scholars' results, which he was scrupulous in crediting. But beyond this, Graham's work is exceptional among editions of the *Canons* and *Explanations* for the systematic, disciplined constraints adopted to guide graphic emendation and textual transposition. The critical rigor introduced by these constraints renders his the most reliable and invaluable of all modern editions.

Graham's philological achievements were due to critical acuity, peerless mastery of the ancient and modern literature, and meticulous adherence to two simple but compelling principles (xii–xiii). The first is that "graphic emendation should not be the first but the last resort," unless strongly justified by parallelism, comparison between a canon and

² Intratextual references to section and page numbers are to *Later Mohist Logic, Ethics, and Science*.

its explanation, a systematic pattern of corruption, or confusion between graphs for technical terms and more familiar graphs. The other is that to the greatest extent possible, the divisions between sections of the text should be settled on formal, textual grounds, before considering interpretive issues, as should transpositions of phrases or passages. These principles grew out of Graham's well-founded misgivings about the unmethodical conjectural emendation that had characterized many previous editions (73). Strictly followed, they greatly reduce the chances of editorial 'errors of commission' by helping to ensure that emendation and transposition are justified by systematic considerations about the text.

Indeed, in the few places where doubts can be raised about Graham's emendations, the reservations are usually due to disagreement about the relative priority of these principles or to an occasional lapse in applying them. An example of the first sort of case is Graham's emendation of *pi* 彼 ('other') to *fan* 反 ('converse') in the explanations to Canons A 73 and A 74, mainly on the grounds that the latter, easily corrupted technical term better fits the context. The case for this emendation is suggestive but not fully convincing, since *pi* 彼 itself is a technical term fully intelligible in this setting. An example of the latter sort is Graham's reconstruction of the text 'Names and Objects' out of transposed pieces of the 'Smaller Pick' and fragments from the 'Bigger Pick' and the canons (§1/2/3). Graham justifies this reshuffling on the grounds that the entire 'Bigger Pick' — and presumably much of the 'Smaller Pick' — is an area of general textual fragmentation (xii). Yet, as he recognizes (108), the latter text opens with what appears to be an introduction to an essay on *pien* 辯 (disputation), is intelligible as it stands, and thus could equally justifiably have been left alone.

One proposal has been raised concerning how these methodological principles could be supplemented and strengthened.³ Graham suggests that the tendency toward 'guesswork' in many editions of the *Canons* is due to editors' uncritically allowing their — necessarily tentative and fallible — interpretation of the meaning of the text to guide emendation. To eliminate guesswork, he suggests, criteria are needed "by which to settle most textual problems *before*, not in course of, exploring the meaning" (73). But warranted emendation need not, and generally can not, be as independent of interpretive issues as this remark implies. The

³ See Chad Hansen, review of *Later Mohist Logic, Ethics and Science, Philosophy East and West*, 37/2 (1987), p. 243.

question is rather whether interpretation-driven emendation rests on a rigorous, systematic account of the content of the text, or merely on the editor's intuitive hunch about how a particular passage ought to read. In fact, careful, systematic interpretation is a fundamental element of the justification for emendations based on graphic similarity, parallelism, or easily confused technical terms. A more precise, complete statement of philological principles would explicitly recognize the role of systematic, methodical interpretation in supporting, and often motivating, textual emendation. A brilliant illustration of such an interplay of interpretive and textual hypotheses is Graham's own proposal that *min* 民 in the explanations to Canons A 32 and A 71 is a graphic error for an archaic graph once used to write the word *min* 閔 (194) — a suggestion that, if correct, helps to unlock crucial elements of the Mohists' semantic theory.

A second major area of achievement in *Later Mohist Logic* is Graham's detailed study of the texts' grammar, summarized in an invaluable chapter (§1/3) that should be read by every advanced student of classical Chinese. Here his central contention, buttressed by interpretation and analysis of many sample passages, is that the grammar of the *Canons* and *Explanations* is generally strict and regular. Hence, he convincingly shows, familiarity with the texts' grammar is a prerequisite for a disciplined, convincing interpretation, and a systematic account of the grammar tends to support some interpretations of individual passages and weigh strongly against others.

Beyond its value in interpreting the texts, Graham's grammar raises several issues that could fruitfully be pursued in future research.⁴ One potential weakness of the approach he takes is that, given the brevity of the Mohist texts, their corrupt state, and their terse style, the discussion sometimes seems to move too quickly from the observation that certain formulations do not occur in the texts to the conclusion that the writers intentionally avoid them, presumably as a grammatical rule. Further research comparing Graham's conclusions with the wider pre-Han literature and building on more recent studies of classical Chinese grammar might serve to buttress his conclusions or identify areas for revision. Another direction for research would be to replicate the study in *Later Mohist Logic* while distinguishing more rigorously between syntactic and semantic analysis and between grammatical analysis and recommendations for regular English translations. For example, the discussion of the particle combination *ye tse* 也者 amounts mainly to a

⁴ Concerning the first two of these issues, see again Hansen, p. 242.

proposal about translation, namely that the combination is functionally equivalent to 'unquote' and so can be translated by placing quotation marks around the preceding word or phrase (140). What is needed is an analysis of the grammatical function of the two particles, which might well reveal that the role of the pair is distinct from quotation.

The findings of the grammatical analysis could also be strengthened by explicitly acknowledging the interdependence between grammatical and interpretive hypotheses and defending such hypotheses jointly, as part of a comprehensive theory covering syntax and semantics. This approach would eliminate the risk of circularity that sometimes threatens appeals to grammatical analysis to support interpretive conclusions in the translation (§2/4). The worry — illustrated again by the discussion of *ye ch'ü* 世著 — is that readings of passages are sometimes justified by appeal to conclusions about grammar drawn from sample interpretations that include the very passages in question.

The third area in which *Later Mohist Logic* makes remarkable contributions is in interpreting the later Mohist philosophical and scientific theories. Graham's insightful discussions of technical terminology (§1/4) and stock examples (§1/5) are major contributions to our understanding of Mohist thought, which can be expected to serve as a cornerstone for all future study. Especially valuable is the systematic light his work throws on how the details of the Mohist theories fit together. An outstanding example is his painstaking analysis of the interrelations between central concepts in the Mohists' semantic theory, including *chih* 執 (uphold), *fa* 法 (standard), *yin* 因 (criterion), *miao* 妙 (characteristics), *yi* 宜 (appropriate), and *chih* 止 (stay). And Graham's account of one particular technical term, *ch'ien-pai* 堅白 ('as-hard-to-while'; see A 66 and p. 280), supplies a key to understanding the structure of the *Canons*, yielding a crucial justification for his conclusion that all of Canons A 1-75 are what he calls 'definitions', or explications of terms.

Two reservations temper this praise and point to directions in which further research is needed to corroborate and develop Graham's results. In a few places, encouraged perhaps by his interpretive successes, Graham reaches surprisingly definite judgments about the significance of passages that, despite his efforts, remain obscure or doubtful. A prominent instance is his reading of 'Expounding the Canons' §2, a reconstructed piece of the 'Bigger Pick' that Graham interprets as referring to what the sage desires or dislikes 'a priori' on behalf of all (246). The text here is so uncertain that any interpretation is necessarily speculative; yet Graham has enough confidence in his reading to make it the keystone of his

account of later Mohist ethics. Passages such as this call for further interpretive scrutiny.⁵

Second, the worries about circularity elicited by aspects of the grammatical analysis arise again in the treatment of some of the technical terminology. One especially commendable feature of *Later Mohist Logic* is the extensive cross-referencing between the introductory chapters on grammar and terminology and the translation of each canon and explanation.⁶ The cross-references often convince immediately, by showing how different parts of the text are jointly explained by a unified, coherent interpretation. But in a few places they tend to conceal the extent to which readings of particular passages are speculative or neglect plausible alternatives. For on following them up, one sometimes finds a general interpretive claim justified by appeal to interpretations of individual passages, which in turn rest mainly on the original general claim, rather than on arguments for their superiority in explaining the relevant passages.⁷

For instance, two introductory sections, §1/4/13 and §1/5/8, present the general claim that the term *hsien* 先 should be interpreted as 'a priori', justifying this reading by citing phrases from 'Expounding the Canons' §2 and Canons A 93 and B 57 in which it is rendered that way. Beyond these translations, no argument is given to show that this technical term from the Western philosophical tradition better captures the import of the Chinese than does the ordinary word 'beforehand', which, as Graham points out, is what *hsien* typically means in pre-Han texts (138). Yet the notes to the translations of these three passages cite §1/4/13 and §1/5/8 to justify interpreting *hsien* as 'a priori', again without explaining why this is a more compelling reading than 'beforehand' (248, 342, and 429). Here an explicit account is needed of how the proposed general interpretation best elucidates the passages concerned.

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⁵ Other important passages where further attention is particularly needed include Canons A 50, A 51, A 88, B 2, B 3, and B 10.

⁶ Similarly helpful features include the detailed, wide-ranging textual references accompanying each section of the text, comprehensive Chinese and English indices, a depiction of the two-row version of the canons prior to their accidental reshuffling into columns, and a reproduction of the complete Taoist Patrology edition of the texts, all of which combine to make *Later Mohist Logic* an absolutely indispensable reference.

⁷ This problem was first noted by Hansen in his review, p. 241.

In praising Graham's many interpretive achievements, I have been focusing on the numerous details of his account that are convincing or clearly make solid contributions to our understanding of the later Mohists. I have not yet mentioned the most prominent aspect of his interpretive work, his account of the overall aims of the text and the fundamental nature of later Mohist ethics, semantics, logic, and epistemology.⁸ This, unfortunately, must be considered the area in which further study is least likely to corroborate his conclusions.

Graham's general interpretation (21 ff.) is that the later Mohist texts represent an attempt to grapple with a problem of authority or justification by developing a form of rationalism similar in some respects to the strand of Greek thought epitomized by Parmenides, Socrates, and Plato. According to Graham's narrative, a 'metaphysical crisis' led the later Mohists to conclude that appeals by earlier thinkers to *tiên* 天 (heaven), to the authority of ancient sages, or to human nature could no longer suffice to justify solutions to the ethical and political problems that beset their turbulent age. Instead, like the Greeks, the later Mohists held that such problems can be definitively solved only by reason and logic — or, in their terms, by 'disputation' (*pien* 辯).⁹

Troubled by the relation between knowledge and temporal change, the Mohists embarked on the detailed study of 'disputation' and in course discovered the notion of logical necessity, which provides a kind of certainty impervious to temporal change. The fundamental aim of later Mohist philosophy is to exploit this discovery to rebuild Mohist doctrine from the ground up. The Mohists seek to rationalize the utilitarianism of Mo-tzu, the founder of their school, by developing a systematized ethical theory based on definitions of ethical terms and facts about benefit, harm, and human desires and dislikes. In this way, the teachings of Mo-tzu can be re-established on an unshakable foundation.

⁸ For a concise, accessible summary of Graham's interpretation, see pp. 137–170 of his *Disputers of the Tao* (Open Court, 1989), much of which is a revised version of *Later Mohist Logic* §1/1. Students of the canons should note that Graham there modifies his interpretation of Canons A 50 and A 51 (see pp. 142–143, where the canons labeled A 40–41 are in fact A 50–51).

⁹ Graham's interpretation of later Mohist thought is not an isolated account of a single school, but a major component in a broader narrative of classical Chinese philosophy as a dialectic between 'rationalism' and 'anti-rationalism'. (See *Disputers of the Tao*, p. 7 and *passim*.) The motivation and grounds for this account thus derive not only from the later Mohist texts, but from Graham's overall interpretation of classical Chinese philosophical discourse, and to a certain extent, the two stand or fall together.

Toward this end, Graham proposes, the Mohists set out in the *Canons* to provide a general survey of the basic concepts of all knowledge, which they organized into four disciplines, corresponding to the four objects of knowledge identified in Canon A 80. These are 'description', the study of how to relate names¹⁰ to objects; ethics, the study of how to act; the sciences, the study of objects; and 'disputation', the study of names.¹¹ This fourfold scheme, Graham suggests, provides one of the two fundamental organizing principles of the *Canons*. He proposes that the canons divide into two parallel halves, each of which divides in turn into groups of canons corresponding to the four disciplines. The first half of the corpus — Canons A 1–87 — presents 'definitions' of terms pertinent to the four disciplines, the second — Canons A 88–B 82 — examines basic 'propositions' in the disciplines. (See the tables on pp. 30 and 230.)

According to Graham, the Mohists held that two of these disciplines — 'disputation' and the sciences — yield knowledge that is logically or causally necessary and unchanging. The other two, 'description' and ethics, yield knowledge that is contingent and transient, enduring only as long as the names we use or the desires we affirm 'stay' (*chih* 止) in objects (presumably, that is, until the objects perish, we change our basis for naming things, or we change the ends for which we act). 'Disputation' yields a priori knowledge derived from analyzing the definitions of names. In 'description' and the sciences, it establishes what can be known a priori; in ethics, it determines "what is desired or disliked 'a priori' for the sake of men" (47), which follows necessarily (*pi* 必) from the 'essentials' (*sh'ing* 請) of moral concepts as given in their definitions. The Mohists' ethics is fully systematized (45), the moral concepts forming a chain of interlocking definitions ultimately resting on the undefined primitives 'desire' (*yü* 欲) and 'dislike' (*wu* 惡). Hence by establishing what is desired or disliked a priori, 'disputation' furnishes a necessary, a priori, eternal justification for Mohist ethics.

This is not the place for an exhaustive assessment of this interpretation, but in the context of reviewing the current status of Graham's work, a summary of the major critical challenges to it is in

¹⁰ For the Mohists, 'name' (*ming* 名) is a general term for all words.

¹¹ Graham later preferred to call the first discipline 'discourse' instead of 'description' and the fourth 'argumentation' instead of 'disputation'. See *Disputers of the Tao*, p. 139.

order.¹² Toward this end, I will review three major objections to Graham's account. Let me note at the outset that neither the brief sketch just given nor the discussion below does justice to Graham's elaborate case for his views. To appraise the full weight of his arguments, readers are urged to consult his overview of later Mohist thought (§1/1) and translation of the texts. The remarks that follow are necessarily contentious; their point is not to convince so much as to indicate some of the areas where controversy lies.

The first objection is that the proposed fourfold organizational scheme does not explain the structure of the *Canons* adequately.¹³ The problem is that, apart from the division at A 87,¹⁴ the scheme seems at odds with many observations about the structure and content of the texts. On the one hand, the *Canons* and *Explanations* do not conform in a transparent way to the fourfold scheme. The texts are not formally divided into sections corresponding to the four disciplines, nor are there subheadings or other explicit indications that this is the plan of the work. By Graham's own count, the 'definitions' divide into at least six sections, not four, with more than a quarter of them — 24 of 87 — falling outside of the four-way scheme (see the table on p. 30).¹⁵ If the texts were indeed organized according to the four-way plan, it is difficult to see why the canons in the two extra sections were not divided among

¹² For more detailed comments, see the valuable reviews of *Later Mohist Logic* by Christoph Harbsmeier and Chad Hansen and especially Jane Geaney's detailed discussion. No reader today should consult Graham's book without also considering the issues raised by these critics. For Harbsmeier's review, see *Bulletin of the School of Oriental and African Studies*, 43/3 (1980), 617–619. Hansen's review, previously cited above, is in *Philosophy East and West*, 37/2 (1987), 241–244. Geaney's article is 'A Critique of A. C. Graham's Reconstruction of the "Neo-Mohist Canons"', *Journal of the American Oriental Society*, 119/1 (1999), 1–11. Graham responds to some of Hansen's remarks in his review of the latter's *Language and Logic in Ancient China*, *Harvard Journal of Asiatic Studies*, 45/2 (1985), 692–703.

¹³ On this point, see Geaney, pp. 2–4, and Harbsmeier, p. 618.

¹⁴ There are grounds for questioning whether this division should be drawn after Canon A 87 or A 88, A 88, which treats varieties of similarity and difference, follows immediately after A 86, on similarity, and A 87, on difference; and thus could have been intended to form a group with them.

¹⁵ A group of twelve 'definitions' (A 40–51) falling between those for the proposed second and third disciplines form what Graham labels a 'bridging sequence' on 'knowledge and change'. (A much shorter 'bridging sequence' also occurs in the 'propositions' (B 13–16).) Another group of twelve canons (A 76–87) lying between the 'definitions' and 'propositions' Graham identifies as an 'Appendix' on ambiguous words.

the sections for the different branches of knowledge.¹⁶ Nor do the 'propositions' seem to correspond to the fourfold division. The second of the four disciplines, 'ethics', lacks a corresponding set of 'propositions',¹⁷ and, as in the 'definitions', an extraneous sequence of canons appears before those grouped under the third discipline.

On the other hand, the content of many canons does not seem to correspond to the discipline to which the scheme assigns them. It is difficult to understand why the six 'definitions' assigned to 'description', or relating names to objects, treat 'cause' or 'reason', 'unit', and four terms related to thought and knowledge, but no specifically semantic notions. Canons A 31–32 explain 'speech' and seem to be mainly about semantics, but fall into the section Graham labels 'ethics', which also includes 'definitions' of 'life', 'sleep', and 'dreaming' (A 22–24). Several of the 'propositions' assigned to 'disputation' would seem to fall more naturally under the sciences.¹⁸ Other canons that do not seem illuminated by the label 'disputation' include B 47, which discusses whether the heat of a fire is a property of the fire or the person who feels it, B 50, about freeing oneself of doubt, B 51, a rebuttal of fatalism, B 69, about leading and following, and B 53, which seems to be mainly about using a name to refer to an object in the past, and thus would seem to belong in a section on name-object relations.¹⁹ A skeptic might argue that the simplest, most natural explanation of these and the other incongruities between

¹⁶ For instance, in the 'bridging sequence', Canon A 42, on the notion of a limit, A 45–46, on transformation and loss, and A 47–49, on rotation and movement, would seem to fall naturally under the heading of geometry and the sciences. In the 'Appendix', Canon A 78 seems clearly to be about names, A 79 name-object relations, A 80 knowledge, and A 84 ethics or conduct.

¹⁷ Graham suggests that since the Mohists had already set forth a series of ethical propositions in 'Expounding the Canons', they omitted them from the *Canons*. This explanation would be plausible if the case for the fourfold scheme were otherwise quite strong, but the scheme faces other difficulties.

¹⁸ Examples include B 43, on whether the 'five phases' follow a constant succession relation; B 52, on an issue in mechanics; B 56, an obscure passage about submerging a binnacle; B 60, apparently a version of Zeno's paradox; and B 62, which explains that a sphere is always 'upright'.

¹⁹ Graham groups this variety of topics under 'disputation' because "throughout this series... the problems are conceived as solvable on the plane of names without observation of objects" (399). Most of the issues discussed are indeed treated by reasoning, rather than empirical observation. But the same is true, for instance, of Canons B 30–31, on economics, which on the fourfold scheme fall under the sciences. And that these issues are treated mainly by reasoning seems thin grounds for treating them as a single discipline devoted to deducting implications a priori from definitions of names.

the texts and the four-way scheme is that the *Canons* are not, after all, organized into four branches of knowledge. Precisely what principles do guide the organization of the *Canons* — and to what degree Graham's proposals capture genuine patterns in the texts — is thus an important topic for further research.

The second major objection to Graham's interpretation is that it splits into two distinct fields what for the Mohists appears to have been a single theory of *pien* (disputation), incorporating semantics and rudimentary principles of logic and rhetoric.²⁰ According to Graham's account, the later Mohists drew a sharp distinction between 'description' (mainly semantics); the first of the four branches of knowledge, and 'disputation' (largely, but not entirely, logic), the fourth branch. 'Description' provides procedures for consistently describing, or fitting names to, transitory objects and yields judgments whose correctness is contingent and temporary. 'Disputation' studies a priori, necessary relations between names, but not relations between names and objects. Its judgments follow by strict necessity from the definitions of names.

Several observations have led critics to question the proposed distinction. Some of the canons Graham assigns to 'disputation' seem best explained as treating relations between names and objects, not only relations between names. For instance, the explanations to Canon A 74 and B 35 both depict *pien* (disputation) as a disagreement over which of two converse terms, such as 'ox' and 'non-ox', fits' an object, and as Graham observes, what is deemed 'ox' or 'non-ox' in *pien* is "the actual object in front of our eyes" (39). On the other hand, some canons assigned to the 'description' section appear to address argumentation as well as semantics. The explanations to A 97 and B 1 allude to discourse with an opponent, suggesting that these canons treat not only name-object relations but disputation. The canons on 'description' and 'disputation' also share much of the same terminology (232).

A further point is that different parts of the texts apparently refer to the fields of 'description' and 'disputation' by the same name — *pien* 辯 (disputation). *Pien* is explicated in three places: Canons A 70–74 and their explanations, Canon B 35 and its explanation, and the opening paragraph of the 'Lesser Pick' ('Names and Objects' §6). All three discussions depict *pien* as a matter of distinguishing whether something is 'this' (*shih* 是) or 'not-this' (*fei* 非) — typically with respect to some

²⁰ Concerning this point, see Geaney, pp. 3 and 7–10.

term, such as 'ox', and by reference to a 'model' (*fa* 法) or 'exemplar' (*faiao* 效) for the kind of thing denoted by the term. Despite this similarity, however, on Graham's interpretation these passages treat fundamentally different subjects. The canons and explanations clarify central notions in 'disputation', while the 'Lesser Pick' discusses the distinct field of 'description'. This claim is puzzling, especially because Graham also suggests that the 'Lesser Pick' was written after the *Canons*. His view entails that in the *Canons* the Mohists discovered the study of necessary, a priori reasoning and called this field *pien*, but then in the 'Lesser Pick' set aside this discovery and reverted to using the term *pien* in an older, broader sense, in which the fields of 'description', ethics, and the sciences are treated as branches of *pien* (31).

A simpler explanation of these observations, a critic might argue, is that all the passages in question refer to the same activity, the canons providing a detailed theoretical basis for the practice of *pien* as described in the 'Lesser Pick'. On this alternative interpretation, instead of the two distinct fields of 'description' and 'disputation', the later Mohists recognize a single activity concerned with how to properly distinguish the extensions or referents of terms in disputes over whether some thing is *x* or not-*x*, where '*x*' is a term denoting some 'kind' (*lei* 類). This field comprises semantics and logical norms bearing on the consistent use of terms. Some of its judgments follow by necessity from basic principles of logic, such as the law of excluded middle, some form of which is at work in Canon B 35. Others are contingent and fallible, as the 'Lesser Pick' warns ('Names and Objects' §12), because semantics depends partly on contingent, often conventional judgments of similarity.

Further study is needed to identify the strengths and weaknesses of Graham's interpretation and this alternative. In particular, research is needed to explore to what extent the Mohists recognize, as Graham contends, a distinction between necessary judgments, obtained by reasoning alone, and contingent 'descriptions' of things. Further clarification is also needed of the theoretical roles of terms such as *pi* 必 ('necessary'), *chi* 止 (temporarily 'staying'), *ko* 可 (logical possibility or normative permissibility), *lang* 當 (the semantic 'fitting' of language to reality), *shih* 是 ('this' or 'this-kind'), *tz'u* 此 ('this' or 'this-here'), and *jan* 然 ('so'). Graham's work has contributed tremendously to our understanding of these notions, but many questions remain to be answered.

The third major challenge to Graham's general account is that salient features of the texts seem difficult to reconcile with the proposal that

the later Mohists discovered the notion of necessary, a priori reasoning and applied it to construct a systematized ethical theory. Two sorts of questions have been raised: general doubts about whether the Mohists were indeed engaged in this sort of system building, and specific ones about whether their ethics forms such a system.

One concern is that the organization of the texts generally does not seem to reflect the kind of coherent, systematic theoretical structure Graham finds in them.²¹ For instance, the *Canons* are not arranged in a way that makes it obvious how the different 'definitions' connect into a system to support the 'propositions'. An illustration is provided by the very first canon and explanation, which explicate the word *ku* 故 (cause, reason) in a narrow sense equivalent to 'necessary condition' and introduce specialized terms for 'necessary condition' and 'necessary and sufficient condition'. Rather than fitting into a tightly knit system of definitions and theorems, the narrow sense of *ku* is largely ignored in the rest of the *Canons*, and the two specialized terms never reappear. Moreover, immediately after introducing these terms, the text shifts to a different, unrelated topic, the notion of the 'unit'.

A second general concern is whether the Mohists can aptly be described as constructing a system devoted to a priori derivation of the consequences of definitions when they seem to lack many of the conceptual tools requisite for such a project.²² They develop no explicit concepts of definition, premises, conclusion, or proof or demonstration. Without question, they recognize and apply sophisticated logical and semantic relations and principles such as excluded middle and non-contradiction. But the suggestion that they produced what is in effect an axiomatic theory seems strained, since many of the components of such a theory, including the very notion of 'derivation' or 'demonstration', seem to be missing. The proposal that they explicitly discovered the notion of logical necessity calls for further study as well, since their use of the term *pi* 必 ('necessary' or 'must'), does not distinguish between logical necessity, causal necessity, and obligation.²³

Specifically, and most seriously, the ethical texts do not seem to fit Graham's characterization of them as presenting a "fully systematized," "beautifully simple, complete and consistent" theory (45) intended "to

²¹ See Harbsmeier's comments, p. 618. The example concerning Canon A 1 and its explanation is his.

²² This point is adapted from an unpublished paper of Hansen's.

²³ See Harbsmeier, p. 619.

establish benefit, harm, and the moral concepts as desired or disliked 'a priori' (47) by defining the moral concepts in terms of benefit and love, which are defined in turn in terms of desire and dislike (47-48). As presented in the texts, the ethical theory seems neither systematic, simple, nor complete. Its 'definitions' are scattered throughout the canons and take on the appearance of a system only if rearranged.²⁴ The crucial passage about "what is desired or disliked 'a priori' on behalf of men" does not appear in the received text; it is the result of transposing fragments from a corrupt, obscure section of the 'Bigger Pick' ('Expounding the Canons' §2). The term 'benefit' is in fact explained in terms of pleasure, not desire.²⁵ And the texts lack 'definitions' for the terms 'love' (*ai* 愛), 'collective' (*chen* 兼), and 'intent' (*chin* 志), gaps that Graham fills by positing a lost text containing definitions of these and other terms (§1/6/2). The theory as he presents it is thus the result of a complex process of rearrangement, transposition, rephrasing, and speculation. Critics have naturally questioned how well this interpretation explains the texts as they stand.²⁶

In summary, challenges have been raised to Graham's account of the organizing principles of the texts, to the proposed distinction between 'description' and 'disputation' — and thus the identification of a distinct discipline concerned with necessary knowledge derived from a priori analysis of definitions — and to the claim that the Mohists developed a systematized theory to provide an a priori, rationalist justification for their ethics. These challenges point to numerous topics for further research on the organization of the canons, the web of Mohist concepts related to semantics, logic, and necessity, and the nature of the later Mohist ethical theory.

* * *

²⁴ The central moral terms are presented in Canons A 7-14. The canons on 'benefit' and 'harm' are A 26-27, separated from the moral terms by canons on service, commands, courage, life, sleep, dreaming, and calmness. The canon on ends, or 'being for' something, is A 75, falling after all the 'definitions' on geometry and disputation, and that on 'desires' is A 84.

²⁵ Canon A 26 reads, "Benefit is what one is pleased to get." Graham paraphrases this as a definition in terms of 'desire', explaining that "because of the incommensurability that desire unlike dislike necessarily precedes achievement, the word used ... has to be *ku* 故 'be pleased'" (47). Graham's reasoning here is difficult to follow, since the 'pleased' and 'desire' are distinct concepts that are not equivalent or interchangeable.

²⁶ Several of the points in this paragraph are raised in an unpublished paper by Hansen, though he is not responsible for the formulation given here.

Later Mohist Logic had a tremendous, in some ways decisive, impact on European and American scholarship on early Chinese thought. It established convincingly that a grasp of ancient theories of language, knowledge, and dialectics is essential to a complete understanding of classical Chinese philosophical discourse, and it made major steps toward filling in the details of those theories. It corrected the faulty picture of ancient Chinese thinkers as uninterested in abstract philosophical questions concerning language, knowledge, and logic, and it refuted once and for all the myth that the classical Chinese language is somehow an inadequate vehicle for rigorous or abstract reasoning and analysis.²⁷ Indeed, Graham shows convincingly that the Mohists had a sophisticated, precise system of logical quantifiers (§1/3/6) and conjunctions of logical implications (§1/3/11). Above all, Graham's work made the later Mohist writings fully available to students of Chinese intellectual history, specialists and non-specialists alike. By establishing a usable edition, furnishing a complete translation with notes and commentary, and presenting a systematic, strongly argued interpretation of Mohist thought, it removed barriers to study of the texts and provided a quick, sure route into the world of these fascinating ancient thinkers. Anyone who has studied the *Canons* with the help of *Later Mohist Logic* knows well the extent of the reader's debt to Graham as a teacher and guide through the texts.

Indeed, in some respects, *Later Mohist Logic* has been almost too influential. The book is simply monumental, the product of immense learning, meticulous philological work, and a powerful interpretive sensibility. Given the magnitude of Graham's achievement and the daunting obscurity of the texts, many readers have understandably tended, with a mixture of gratitude and relief, to accept his philological and interpretive proposals as authoritative, even decisive, rather than as contributions to be tested and built upon in further inquiry.

By contrast, the impact of *Later Mohist Logic* in the Chinese scholarly literature has been vanishingly small. Publications on the later Mohists in Chinese have appeared at a rapid pace since 1978. Particularly encouraging is the growth in research on Mohist science and mathematics by specialists in the history of science. Yet Graham's work seems largely unknown or unread by scholars writing in Chinese. This is regrettable,

²⁷ This misconception unfortunately persists in some quarters. See, for example, Ray Billington, *Understanding Eastern Philosophy* (London: Routledge, 1997), p. 87.

for on perusing the literature, the scale of Graham's contribution to our understanding of the texts becomes readily apparent. One finds oneself in another intellectual world, where writers are in effect interpreting a different text, which the reader cannot help but suspect is hopelessly corrupt in places. Textual and interpretive issues for which Graham presents compelling solutions go unresolved or unrecognized. A pressing task for those concerned to establish stronger relations between the Chinese and international scholarly communities will be to introduce Graham's work to Chinese scholars and to clarify — and, where possible, resolve — differences between his conclusions and those of leading Chinese specialists.

Graham's work made later Mohist thought more accessible than ever before, but that access still does not come easily. *Later Mohist Logic* is a difficult book. To understand Graham's translations, one must learn his interpretation of later Mohist terminology and theory and dip frequently and deeply into his extensive notes and commentary, without which the texts' condensed style and technical content would render any translation only slightly less impenetrable than the original Chinese. *Later Mohist Logic* is more of a handbook or companion to the later Mohist writings than a conventional translation. Invaluable as it is, this handbook does not eliminate the need to get one's hands dirty mastering the details of the texts. But the rewards are well worth the effort, for careful study yields precious insight into early Chinese thought as a whole and a rich taste of a sophisticated approach to language, mind, and knowledge distinct from those that have dominated the Western philosophical tradition.

Here lies the lasting value of *Later Mohist Logic, Ethics, and Science*. By presenting a comprehensive account of the structure, grammar, and terminology of the texts, along with detailed analyses of Mohist theories and insightful, sometimes brilliant, readings of individual canons and explanations, Graham's book provides indispensable resources for focused, fruitful research and debate on later Mohist thought. At the same time, by offering a vigorously argued interpretation of the aims and themes of later Mohist philosophy, it poses a stimulating challenge to interpreters and sets a high standard for rival accounts to match. Graham himself did not claim that his work had 'solved' the *Canons* definitively. To the contrary, he emphasized that "many obscurities remain, and my explanations will not always convince others as easily as myself" (xiii). His work answers many questions about the later Mohists while raising yet more for us to pursue. Chief among the book's many

great merits is that it provides the tools with which to do so in a rigorous, principled way.²⁸

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Part I

INTRODUCTION

²⁸ My thanks to Dan Robins for comments on an earlier version of this Introduction.