

1

ASPECTS OF THE RELATION BETWEEN
DOCTRINE AND DIALECTIC IN PLATO

DEREK ALAN BRENDON THOMAS

September 1974



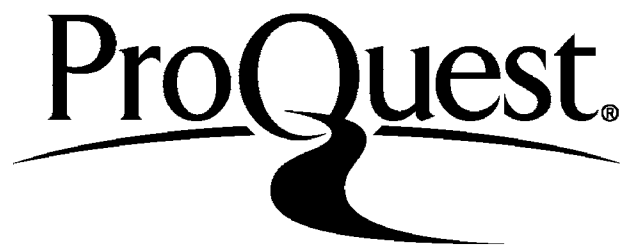
ProQuest Number: 10097404

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10097404

Published by ProQuest LLC(2016). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code.
Microform Edition © ProQuest LLC.

ProQuest LLC
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106-1346

ABSTRACT

An attempt is made to identify a principle underlying the increasing complexity of the early and middle dialogues of Plato without postulating a secret doctrine or straining the text. Socratic argument is argument from a position, and this reserved position is often the key to the vicissitudes of the argument. Yet he is prevented from expressing this position because there is no generally recognized contemporary framework of philosophical discussion by means of which he can make his argument independent of the reaction of his interlocutors. Thus the whole dialectical situation is part and parcel of the proof. The whole dialectical situation was analysed by Plato in the effort to generalise the application of the proof, to produce a doctrine of character - of the man on whom dialectic works; a doctrine of hypothesis in which dialectic is interpreted to professors of other disciplines in a competition for attention traditional between the disciplines; a doctrine of memory and recollection, based on analysis of the role played by memory in guaranteeing the truth content of a conversation; and a doctrine of mind and perception which is dialectic internalized and transposed to a mental sphere. The fundamental character of Platonic proof is reported dialectic, and in the dialectic reported, at least at the beginning, natural forces work to produce the desired result. The evidence for a formalized dialectic dependent on, or independent of or even pre-dating Plato is not sufficient to produce conviction. The ghost of Socrates must always be supplied to the dialectical machine.

CONTENTS

Introduction p.4 - 10

Cap I Dialectic^{*} Character p.11-48

- (i) irony p.11,
- (ii) related concepts p.35,
- (iii) Earnestness p.47.

Cap II Dialectic and the Sciences 49 - 161

- (i) the Gorgias p. 49,
- (ii) Hypothesis in the Meno p.61,
- (iii) Satzlogik p.95.
- (iv) Hypothesis in the Phaedo p.104,
- (v) Dialectic and other sciences : the Republic p.122
- (vi) Theaetetus p.143
- (vii) Lower Line p.156 (appendix)

Cap III Dialectic and Memory p.162 - 232

- (i) Ordinary Theory of Memory p.162
- (ii) Memory and Dialectic p.174,
- (iii) Recollection in the Meno p.186,
- (iv) Recollection in the Phaedo p.204
- (v) Visible Similar p.329 (appendix)

Cap IV Dialectic and Mind 233-273

- (i) Advance to doxa p.233
- (ii) Error in the Theaetetus p.247

Cap V Origins of Dialectic p.270 - 323

- (i) Protagoras p.271
- (ii) Minor Sources p.284
- (iii) Zeno p.293
- (iv) Plato and eristic p.307
- (v) Post-Platonic Sources p.312
- (vi) Socrates and dialectic p.320

Bibliography p.324 - 334

INTRODUCTION

Platonic scholarship seems to divide along two axes. The poles of one axis are Development and Unity; the poles of the second axis are Drama and Philosophy. Most scholars with a historical bias have chosen Development and Drama; whereas philosophers would prefer to opt for Unity and Philosophy. But in the case of a philosopher who lived as long as Plato, and who had so much groundwork to lay before it became possible for him to philosophise at all, developmental studies may have their own use. Such studies might emphasise how each stage of Plato's thought developed out of the previous stage. The later stage no doubt would not have developed without some external stimulus; but as each stage seems to become some sort of system for solving problems on many fronts, a study which is more than merely chronological or merely descriptive can be made of the relation between each stage.

The historians' temptation is to assume a line of ~~Continu~~ progress, starting in Plato's case either from near nothing, or from something of which near nothing is known. He takes the dialogues as his main evidence, and announces that the early group are dramas, since they look like dramas, and Plato could not have known at that date he was writing philosophy (Wilamowitz). But the only reason alleged for writing such dramas is the relief from mental conflicts; unless of course it was to perpetuate the memory of Socrates (Burnet and Taylor). But this does not explain why the 'Socrates' perpetuated varies from work to work; nor, if the point is simply to perpetuate Socrates' "message", why this message is presented in such a tantalising way that all we get is really some sort of method - dialectic.

Perhaps the most usual solution is to assume that the dramatic motive is dominant in Plato's youth, and the philosophical is dominant in the later dialogues, though neither pole is absent at any stage. This solution makes

the question of development over [/]time crucial. So we have the Plato who betrayed his master (Popper), the Plato who re-turned his attention to the physical world (Stenzel), the Plato who became another Eleatic (Grote)... Some suggest that this development is due to developments contemporary with Plato (Chroust); but this loses our problem, which is about forms of argument presented in the dialogues. It is possible Plato got these forms of argument from outside sources - Megara (Burnet) mathematicians (recently Brown), but there is not much evidence for radical discontinuity. Many later doctrines are transparently developments of earlier beliefs and commonplaces, and one is left with the impression that Plato read himself with more attention than he read anyone else, except for a few short passages of Heraclitus, Protagoras, Zeno and a longer passage of Parmenides.

But at this point opinion again divides: Are Plato's philosophical interests best regarded as method (e.g. Goldschmidt) or as metaphysical (e.g. Krämer)? Each school is obliged to find the philosophy behind the dialogues, either by revealing a "structure of the dialogue as a written work", or by revealing the existence of unwritten doctrines, to be wrested from the indirect tradition (Gadamer, Gaiser, Krämer). The principles of the two schools can be combined by working out the relations between the doctrine (in so far as there was any doctrine) and the method (in so far as there was any method). Most conspicuously this happens in the area of the theory of Forms. The theory is not argued for in the dialogues, but nevertheless seems to arise naturally out of dialectic. The earliest forms are the objects par excellence of Socratic discussions sealed (Crombie, Ryle); and their special ontological status - their separation from particulars - may be a consequence of affirmations made in dialectic about the sort of entity Socrates is talking of, that good is good and bad is bad (Allen, Detel, Owen et. Vlastos 1972). The object of the present study is to transfer this sort of analysis to other doctrines.

But though it is clear that method and metaphysics are connected, it

is not always clear what the method is. Some use logical analysis on the dialogues and find them adequate (Detel, Sprague) or inadequate (Robinson, Bochenski). Some claim Plato elaborates a conscious logic (Stahl) or at least has a grasp of fallacy (Sprague, Peck). Others assume that Plato can think; but find historically suitable methods for him in Zeno (Lee,) or in widespread eristical practices of a specialised kind (Ryle, Moreau). The question of Plato's "logical status" depends in part on his aims in the dialogue. Interpretters can undervalue the extent to which dialectic was a conversation, in which a deliberately informal vocabulary was used. This is the element Socrates claimed distinguished him from his contemporaries, and it is this element we shall analyse. What Socrates' own techniques were we cannot be certain of; but for the purposes of this investigation, it will be assumed with some supporting evidence that Plato analyses and refines on ~~the~~ ^{an} analysis of Socratic techniques. From the investigation of anamnesis and hypothesis it is hoped that information will be forthcoming about what the method was, though this does not imply that it was originally an elaborated method.

Plato's questions about Socratic techniques break into two:

- 1) why was Socrates successful at all?
- 2) why was he not more successful?

Nowhere does he ask, in our texts, at any rate, the different, more properly epistemological questions:

- 3) was Socrates ever successful? was he right? why was he right?

Questions 1) and 2) are factual, answered by analysing in detail the idealised Socratic conversations. Now Socrates did not talk blind; and it is on some sort of conscious method that Plato concentrates. Prof. Ryle has described this method as "concatenations of question and answer", blocks that could be memorised, *gamuts* and moves in games, but does not admit to what extent such chains were an attempt to express rules of inference. And chains are only what the method looks like from the outside.

The method went with strong beliefs about the nature of the world, with pedagogic intentions and with polemic, which were as much part of the method as the technique of question and answer and eristic.

But Prof. Ryle's characterisation introduces the notion of an order in the successive questions which itself plays a role in the proof, and which can be taken into account in the analysis of successive admissions. Second, he helps towards an answer for question 2). For this method had no general application. It can be seen almost complete in the cross-examination of Meletus in the Apology 24c - 28. The elements ~~present~~ present are the insistence on a certain sort of direct answer,¹ procedure by questions where the argument depends in fact on more complex warrants (like assumptions about the nature of techne²), dilemmas³ and aporias⁴, the deduction of consequences of varying quality from the opponents position⁵ and from one's own⁶, fixed beliefs felt to have fixed implications⁷ (what we later call hypotheses), and exactly the sort of character analysis⁸ and polemic described in Chapter I for the "Gorgias", "Protagoras" and "Thrasymachus". The weakness of the method is obvious: it applies only to Meletus and is not even successful in persuading the audience⁹ because what most people would consider some essentials of a generalised proof have been left out. The method, in fact, seems to be a method of some sort of inference rather than of demonstration. Why should a man reply to such and such a question? and in what way are his replies determined or law like? In the Apology the answer is easy - the law bids it.¹⁰ But the problem is still there for Aristotle¹¹ and underlies most of the dialogues.

This brings Plato face to face with the problem of what a valid consequence is; and how to distinguish a valid consequence from *τα γελοια*.

It is in this area that the reason for the introduction of the notion of

-
1. 24 e; 27 b 4.
4. 25 d; 27 b.
7. 26 a.
10. 25 d 2,3.

2. 25 b.
5. 27 a 6 ff.
8. 26 e 6 ff.
11. *Top. 189 a 25 ff*

3. 26.
6. 25 d 8 ff.
9. 26 b *δορυβειν*

hypothesis must be looked for. For absurd consequences are ^{the} first and easiest consequences to think of. They have their uses in developing a science of argument; but they must be neutralised before acceptable inferences, or before an acceptable meaning, can be given to a statement of opinion. Hence Socrates' preoccupation with ~~what~~ ^{the} a man means; which brings his attention to the mind - the private place from which the statements come.

When Socrates gives something like a cosmic argument in the Phaedo, most of the argument happens privately¹² in his mind. The only way we can learn about it is biographically. The biography itself is given in the shape of a thinly disguised elenchus. We are equally removed from a historical and a philosophical analysis. Anaxagoras' Mind-principle for example is probably very much a *σμικρόν τι* in Anaxagoras' system and the analysis Socrates brings to it depends on his beliefs about himself.¹³ The main argument for Socrates' programme is Socrates himself and this state of affairs is not due to Plato's piety, but to the non-existence of any suitable method of demonstration. Accordingly Socrates does not argue for the theory of ideas - he does the next best thing and tells you how to defend or elaborate it correctly in conversation, that is, how to make your correct meaning clear. The implication seems to be that one's meaning is generally right, though one's words may not be. So too certain beliefs make genuine argument possible, because they are beliefs not only about conduct and the world, but also about the conduct of argument which is the world in miniature.

It follows, then, that in answer to question 2) Plato is led to consider the problems of generalising the argument. But this involves generalisation both at the level of state-policy and at the level of more rigorous demonstration. For the fulfilment of the purpose of argument

12. Phaedo 100a.

13. 98 e.

depends on the existence of good men *and vice versa*.

Plato started with the relatively narrow resources of the conversationalist and the controversialist. In the following chapters an attempt is made to trace the effect of this origin on some early doctrines and arguments, which owe their existence, it is suggested, to repeated analyses of idealised Socratic conversations, with the conversation element a strong second to the method element. In his strict handling of the method element (question and answer) Plato serves to illustrate the rule that the instincts of a philosopher fix on the most tendentious⁴ outrageous elements of a system and refine them. The analysis of dialectic and mind shows the effect of the further incursion of dialectical methods into a specialised area, where the methods impose their own structure. In the Theaetetus the claim of the individual mind to be a source of knowledge is examined and apparently rejected in what is in effect the generalisation of aporia. Dialectical techniques continue to underlie the argument in the Theaetetus (and though the dialogues are not examined, the Sophist and Philebus); and they stand in for Plato's "logic".

Now valid thinking can hardly have a history: but expressed methods of thinking can have such a history if their quirks and asymmetries are taken seriously. Robinson has pointed out how far short Plato falls of developing an adequate logic, but he does not analyse Plato's method, however inadequate, for its own sake. In the following chapters it will be argued that Plato tries to generalise his method by making it more automatic and more doctrinal.

Doctrine has the advantage over dialectic that it can be taught; and the new methods are geared to producing results of some kind. In the Parmenides it is the systematic exploration of concepts; and the arguments involving the theory of Forms start at a greater level of generality than anywhere else in the dialogues. Diaeresis produces stateable results, and effects a classification that will always provide slots by which one can tell one real thing from another, or the genuine from the bogus.

Anamnesis and hypothesis produced no immediate results (except pious hopes) because they were essentially directed towards analysis of what was already happening in 'dialectic'.

An attempt is also made to fix doctrines in the context of contemporary Greek theories. When Socrates says he does not know, (it is suggested that) his statement is significant for the time only if it means that Socrates cannot teach.¹³ Starting from this level, we reach a different sort of appreciation of the dialogues than if we had assumed Socrates is saying something directly about modern epistemological questions (though his difficulties may be none the worse for being pre-Cartesian). Contemporary trends emphasised the teachability of anything, or the wissenschaftlich status of all practical arts. But Socrates claims he can only cooperate with, and not control, forces that will lead eventually to a good end for a good man; and one cannot be a good man unless one cooperates with them. At a pinch one might say that Protagoras and the others were magician-teachers; but Socrates had the "scientific" hope merely of cooperating with a universe he hardly understood. The counterpart of his "ignorance" is the aporia of his followers. When this aporia is generalised in the 'Theaetetus', the way is open for the generalised discussion of what the world is really like by means of statements, words and concepts. It is not claimed, however, that this is a chronological development.

CHAPTER I. DIALECTIC AND CHARACTER

Socrates' irony is notorious, but our evidence for it rests on Plato's testimony alone. The fragments of Aeschines Socraticus are too short to provide a satisfactory confirmation to the statement of Demetrius that both Polycrates and Aeschines Socraticus are *ironists* ~~ironists~~¹. We are usually told too that Xenophon is not ironical. For these reasons some scholars have tried to transfer the glory, or approbrium, of being ironical from Socrates to Plato². Against this Professor Guthrie has pointed out that Charicles^{and} Hippias, two Xenophontic characters, accuse Socrates of asking questions to which he knows the answers³. But neither episode looks purely Xenophontic. Burnet, too, noticed that irony was probably one of the charges laid against the historical Socrates by his enemies⁴. We shall argue that the term is opprobrious. Though its full meaning cannot be fixed before Plato, where its meaning is ascertainable, the term justly applies to the Platonic and probably the historical Socrates. Plato retorts the insult on the Sophists. In his final usage, the word is used for the diagnosis of a "hopeless case", but enough of the earlier meaning is left to produce an observable tension in Aristotle's usage, which in any case diverges from the popular usage of his day shown in passages of Demosthenes. The "good irony" far from disappearing in the later Plato, is ramified into the doctrine of *παῖς*, or play.

-
1. Because of the technicality of the use: 120, 291.
 2. Gulley 1952, *Ethical Analysis in Plato's Earlier Dialogues*. CQ 1952 74-82; Burge E.L. *Antichthon* 1969, pp. 5-17 Burge's list of ironical passages in Xenophon (p.7 n.8) fails.
 3. Guthrie III ii 126; Mem.1.2.36; 4.4.9.
 4. Phaedo 1911 p.lvf.n.5. But Burnet's interpretation of irony is 'failure to commit oneself to a doctrine' (see ad 63c) which is not our interpretation.

Attempts to fix the meaning of 'eiron' from etymology and Aristophanes have failed. Little recommends Schwyzer's derivation eiron ist einer,

der immer sagt τὰ δέ τοι νημάρτεα εἶρω (λ 137)⁵.

Three Aristophanes' loci have been interpreted in as many ways. Ribbeck⁶

takes the root-meaning in those passages to be Nichtwissen and at Birds

1210-11 practically ^{it} takes to mean 'act like Socrates'. Stark⁷ objects that

R. cannot claim both that the word is a "volkstümliche Ausdruck" (because of its company (Clouds 449) and that it refers specifically to Nichtwissen. He substitutes Schwyzer's derivation and claims the word means Heuchlerei.

(Stark is fortunate in having a word that can mean hypocrisy, active deceit, swindling, false pretences, disingenuous relations without further periphrasis)

Stark is right that Nichtwissen cannot fit Clouds 449f without more evidence

that the statement of a scholiast. Stark accepts Ribbeck's version of

Birds 1210. Iris: οὐκ οἶδα μὴ Δι' ἔγωγε κατὰ ποίας πύλας
Pisthetairōs: ἤκουσας αὐτῆς οἷον εἰρωνεύεται;

Here irony does refer to Socrates, for according to Stark, Socrates

has changed his spots since the Clouds! But irony can refer to several

elements ^{of the} action in the refusal to answer, the alleged innocence ^{of the} sheer cunning ^{of the} reply. Stark quotes with approval a characterisation of Iris

as "indignabunda et tamen ridens nam egregie absurda ei videntur quaecumque audivit"⁸. This, he claims, rules out the alternative explanation of irony

given by Büchner⁹, viz, that eironeia means Kleintuerei, Faulheit. But the

point of the Birds scene is that Pisthetairos misinterprets Iris' action.

Whatever Iris' speeches may suggest, Pisthetairos seems to think he is faced

with a coy maiden (1217 σιωπῇ ; 122 Roger's note; 1261). One cannot argue

from the scene that 'irony' can cover openly aggressive behaviour against the

unanimous later evidence. It seems best to discuss the Wasps passage as if

it had no connection with Socrates and take our cue from that: Philocleon

5. I p.487 n.9

6. Rheinische Museum 1876 p.381 ff.

7. Rh.Mus. 1953 pp.77-89 Sokratisches in der Vögeln des Aristophanes.

8. p.80 n.10

9. Hermes 1941 p.339-58.

is trying to escape his son's guard and attend the courts again. He claims that he wants to go outdoors to sell the ass because he will get a better price for it than his son will.

SOSIAS: οὐκ ἔστιν πρόφασιν καθήκεν, ὥς εἰρωνικῶς 174
(ἐν) αὐτὸν ἐκπέμψεις

10.

Here the word can refer either to his ability to make false allegations (prophasis is a technical term) according to the rules of rhetoric, or to his manner of delivery or both. It is unwise to separate them. This instance of irony has an important element in common with the Birds passage - in both, the speaker gives the impression of innocence and, anticipating our inquiry a little, we may add that she speaks humbly and gently to escape detection. For Büchner's Kleintuerei is right to the extent that the eiron avoids open self assertion. The most we can say is that the eiron uses what look like defensive stratagems. However, the pre-Platonic evidence is insufficient to establish any meaning, and our purpose so far has been to show that no pre-Platonic evidence is contrary to our later interpretations¹¹.

Irony in the dialogues is closely connected with the concept of paizein. In fact, paizein helps to make eironeia objectionable. The sort of reaction that levity can arouse in an earnest Greek breast is shown in Herodotus' story of Darius and the Scythians¹². The Scythians started and pursued a hare, when they had been drawn up in military formation. Darius thinks this behaviour is a token of disrespect. Cobryas agrees - he knew it by report and now he has come he has seen the instability for himself. Paraphrasing Darius he says:

εἰδὼν δὲ μάλλον ἐξεμάδον ἐρῶν αὐτοὺς ἐπαίζοντες ἤμην

They agree that the Scythians are unreliable allies. This passage gives some inkling of ^{the power} paizein had ~~the power~~ to insult. Herodotus also

10. Hall and Geldart, O.T. their comma is not strictly necessary.

11. This is also the procedure of L. Bergson, Eiron and Eironeia Hermes 1971 pp.409-22.

12. IV 134, 19;24.

uses paizein in a context very close to Socrates. He meets the treasurer of the temple of Athena in Saïs, who tells Herodotus that he knows the source of the Nile. No one else boasted or claimed (διέχετο) to know. Herodotus says:

οὗτος δ' ἔμοιγε παίζειν ἑδόκει φάμενος εἰδέναι ἀτρεκέως¹³.

Examples abound in the Platonic dialogues¹⁴ and παιδία comes to replace "irony" at the end. But paidia is not sufficient in itself as a meaning for eironeia¹⁵.

The surest thing about irony is that it is a charge made against Socrates by his enemies. It is unlikely that Plato had nothing in history to explain away when he talked about irony, which is a quality he attributes directly to Socrates and the Socratic life. It is not surprising that our instances of the word used by Socrates or by a friend of Socrates come from two defence speeches - the Apology, in which Socrates faces his judges, and in "Alcibiades' speech in the Symposium, in which Socrates is cleared of certain imputations. As has been seen¹⁶, the meaning of the word eironeia alters, but we suggest it alters under pressure of Plato's propaganda.

The only explicit reference to irony in the Apology is at 38. I cannot promise not to pursue my calling, says Socrates, because such a promise would be disobedience to the God. But you will not believe me, because you think I am being ironical. This word can refer either to the excuse just offered for what seems to be aggressive behaviour, or to the whole manner of Socrates' life. Outside this context the word does not seem to apply to the allegation of pious excuses - the God is not as relevant to Socrates meaning as the suspicion in the minds of the audience that Socrates' excuse is not a sufficient motive for his conduct. He claims that he acts peaceably and humbly: but he reaps the consequences of overwhelming pride and aggression - exile. The motive for his humility

13. II 28.

14. Euthyd. 277c9; Gorgias 499c etc.

15. Cf. Bergson op.cit. p.418.

16. Stark op.cit. p.82.

must be disreputable or aggressive. But you believe me neither when I tell you this, says Socrates, nor when I tell you that my "clever" talk is the greatest blessing I could aim at. The implication is that Socrates has to produce a self-interested motive for his actions, because they are not really the actions of a quiet man. Admitting the charges of your enemies, or at least forestalling their reactions, and offering them an alternative to that predictable reaction is very much an orator's trick Socrates protests like Elizabeth that they "would have him answer answerless"; and the weapon they use to deprive him of his answer is the charge of irony. It follows from this earliest Platonic passage, that irony has nothing to do with Nichtwissen. For one does not tell an Athenian court: you think I am pretending not to know my own motives, but I protest I am in a quandary about them. The court is not interested in one's ignorance but in one's motives and one's strategies.

It seems likely from 38 that the charge was a standing charge against Socrates; and there is an unsignalised example of irony in the speech 20 of 4-6:

καὶ ὥσως μὲν δόξω τῶν ὁμῶν παίζειν εὖ μέντοι ὅτε πάντων
 ὁμῶν τὴν ἀλήθειαν ἐρῶ. ἐγὼ γὰρ ὢ ἄνθρωπε Ἀθηναῖοι δι'
 οὐδὲν ἄλλ' ἢ διὰ σοφίαν τινὰ τοῦτο τὸ ὄνομα
 ἐσχέτηκα.

Again he is combatting the charge: if you are so innocent, how do you come to have this reputation. The point is that Socrates' notorious knowledge, or cleverness, rests on his knowledge of his own ignorance. But people attribute to him knowledge of the subject of his cross-examination (23a 3-5). He is concealing something in order to make a sport of his interlocutors. If, as I suggest, this passage is a reference to irony, then irony is a matter of manner and motives and the concealment of motives and Plato's claim is that Socrates' ironical behaviour is not really ironical because it is truthful.

The only two openly favourable uses of the word in Plato are at Symposium 216E; 218D. Plato is again at grips with his master's reputation - his relations with Alcibiades. On the outside, says Alcibiades, Socrates looks like Silenus. Nor does he seem to care about not having the things that make life worth living for those of us who do not look like Silenus. He affects to treasure physical beauty, but really despises it. But in those matters about which he is really serious, you can see his own true beauty. Socrates' behaviour to beautiful boys is sheer irony: *εἰρωνεύμενος δὲ καὶ πάντων ἄνδρα τὸν βίον πρὸς τοὺς ἀνθρώπους διατέλει*

Now irony here means two things (a) Socrates dissembles in his praise: his irony covers contempt. (b) Socrates really despises what people are praised for. The two points are independent and only the first seems to have any connexion with the cunning innocence we have learned to expect from the eiron. Socrates' brand of "irony", then, included the praise of beautiful boys - but in such a way as to deflate the beautiful boys. Plato claims that Socrates really did despise the cheap sorts of beauty and his damning them with faint praise was a truthful reflection of his own beliefs rather than the scheming of the or his pleasure in the discomfiture of others. Irony has overflowed into lifestyle - dress, for example. It connects Socrates with Antisthenes. The correct text for ^{its} explanation is the otherwise difficult passage in which Aristotle says that the adoption of Spartan dress can be boastful (alazoneia) - the opposite of the eiron¹⁷. The implication of the context is that wearing spartan dress is a mark of (Socratic) eironeia. Yet it is eironeia only in the rather extended sense that in which we meet with it here, and which, as will be clearer later, Plato developed in surprising directions in his defence of Socrates. We shall deal later with Aristotle's notion of irony; it is sufficient here to note that in respect of the Spartan cloak he elaborates on a concept of

17. Arist. Nic Eth. 1127b22.

irony that seems to owe its existence to the struggle to apologise for Socrates.

The next use of eironeia is more traditional. At 218d Alcibiades uses fine words and moral pretexts to seduce his master. Socrates listens ironically and remains master of himself and speaks in an unaltered tone, in his usual manner: ἀκούσας μάλ᾽ εἰρωνικῶς καὶ σφόδρ᾽ αὐτοῦ τε καὶ εἰωθότως ἔλεξεν.

The listening, not the speaking is ironical, but it was all part of the same act, because Socrates replies with a mixture of pride and humility which might be taken for an illustration of the Aristotelian text

καταφρονητικὸν γὰρ ἢ εἰρωνεῖν 18.

He replies: "Maybe you are serious (οὐ φλύῳς !); but you see an impossible beauty in me beyond what I see in you. Any exchange of beauty then will be to my disadvantage. But look closer lest I should not be worth it." In his effort to be ironical he almost contradicts himself.

The later prejudice in favour of irony is explicable only from the Symposium, since the other references in Plato are hostile and much more restricted in scope. We cannot say definitively that the Symposium niceties were added to the concept of irony by Socrates or Plato, but the remaining uses of term in Plato make it likely that it was.

We begin with the contexts where the word is used of the enemies of Socrates.

At Euthydemus 302B, Dionysiodorus, asophist, is about to introduce the homologia which will destroy all earlier homologiai. The new premise is of incredibly indirect relevance: Do you have an ancestral Zeus? But it is prefaced by ironical behaviour (καὶ ὅς εἰρωνικῶς πάντοτε ἐπιπλήων ὥς τι μὲν σκοπούμενος) Socrates notices that irony is a danger signal. He refuses out of mere suspicion to give his assent to it, even though he is not sure he understands it. Jowett translated "after an artistic pause".

18. Arist. Rhet. 1379b.31.

At Amatores 133D the word occurs in a scene of rumbustious satire. Unfortunately the Amatores is probably later than comparable dialogues of Plato's oeuvre, and the use of irony is highly developed and closely connected with sophistry. A "sophisticated" debater makes use of an ironical stratagem. But the words seem to mean little more than "sophisticated" "dishonest". It shows what irony became, not what it was. The debater claims to be wiser than he is (132D) and so he is fair game for Socrates. But the first thing the fellow does is to complicate the progress of dialectic: *καὶ μάλα εἰρωνικῶς ἔφη δύο. πρὸς μὲν τόνδε μοι εἰρήσθω ὅτι οὐδέτερον πρὸς δὲ σέ, ὦ Σώκρατες, ὁμολογῶ καὶ καλὸν εἶναι καὶ ἀγαθόν.*

This is tantamount to answering "both and neither" which we shall see in a later chapter was a well-known 'move' in dialectic. Ironical here need mean no more than sophistical; and the sophistical trick is a technical one. Because of this the most important function of this passage for our purpose is to reveal the completeness of Plato's victory in the matter of irony - there is a bad irony but it is the sophist, not Socrates, who practises it. Yet the characteristics of the ironical answer in the Amatores do not square with the behaviour that the Sophists designate as ironical in Socrates.

The same goes for a passage in the Cratylus¹⁹. Cratylus has just told Hermogenes that his name is not really Hermogenes - a very oracular utterance which is referred to later as manteia. Hermogenes describes the incident as follows: *ἐμοῦ προθυμουμένου εἰδέναι ὅτι ποτὲ λέγει οὔτε ἀποσαφὲς οὐδὲν εἰρωνεύεται τε πρὸς με*

- behaviour which reminds me of the behaviour connected by Heracleitus in the Delphic Oracle: *ὁ ἄναξ οὐ τὸ μαντεῖόν ἐστι τὸ ἐν Δελφοῖς οὔτε δέχει, οὔτε κρύπτει ἀλλὰ σημαίνει.* 20.

19. 384A

20. Dk B.93.

Elsewhere Plato does complain of the difficulty in getting Neo Heracliteans to answer questions, and presumably he is referring to the same difficulty here. Hermogenes (like Alcibiades elsewhere²¹) has been practising on Cratylus a method of dialectic learned from Socrates. As far as Hermogenes is concerned, the dialectic has gone through the proper forms. But Cratylus breaks the rules by refusing either to admit a valid generalisation, or show why it is invalid. By this refusal Cratylus saves himself from the elenchus of his statement that Hermogenes name is unnatural. He refuses to give any sign of his meaning: silence as so often is an ironical weapon. There is an assumption of superiority (ὑποστροφόμενος... ὡς εἰδώς), and this is mirrored in the reaction of the interlocutor. He thinks that Cratylus is keeping back something, claiming to know something but refusing to make it public. Socrates helps to heal the wound by interpreting the remark as a jest - the beginnings of an instructive παιδεία

Now there is no reason to suppose that this behaviour is typical of Sophists. Refusing to explain themselves is a characteristic not of Sophists but of Sophists confronted with Socrates. Nor is it a characteristic of charlatan priests for whom the traditional word is alazones. The sort of behaviour described as "ironical" is I believe specific to dialectic. One cannot assume a meaning for irony close to "Tartufferei" because this is insufficient to account for the extraordinary weight put on the word at the end of Plato's life. He tells us there are two brands of atheist. The first sort speaks what he thinks freely, making jokes of the gods and encouraging others to make jokes of them if he is not stopped. The second sort is outwardly pious, but inwardly guileful and treacherous. The first sort is to be punished with imprisonment, admonition, improving discourse, but hanging is too good for the second sort (οὐκ εἰς οὐδὲ δούρειν ἀξία παραταύρην). I find it incredible that Plato should make this distinction on grounds of "sincerity". Ideas of the moral worth of

21. Xen.Mem. I(ii).

sincerity are anachronistic. Something more relevant must be at the heart of the distinction, and I suggest the notion of incurability. But insincerity does not make a condition incurable. I suggest that the ironical man is defined by his behaviour in dialectic, and that what makes him incurable is that he cannot respond to purgative therapy of dialectic - specifically, he cannot admit *aporia*.

The suspicion that Plato is using irony in a technical sense is deepened after consideration of Sophist 268: "There is the simple-minded type of Sophist who imagines that what he believes is knowledge, and an opposite type who is versed in discussion, so that his attitude (*σχῆμα*) betrays no little misgiving and suspicion that the knowledge he has the air of possessing in the eyes of the world is really ignorance" (Cornford). The *ἄπλοος* and the *ἑρωνικός* are contrasted already in the Sophist and used again in the Laws. No explanation is given about why the additional classification into 'frank' and 'ironical' is necessary, but this is in keeping with the manner of this part of the 'Sophist'. A glance at the Summary 268C 8ff will reveal a string of typically Platonic concepts with important philosophical reverberations, none of which has been explained in the Sophist but which nevertheless read like the summary of a very much ramified theory: "The art of contradiction-making, descended from an insincere kind of conceited (*δοξαστικῆς*) mimicry, of the semblance-making breed (*φανταστικοῦ*), derived from image-making (*εἰδωλοποιικῆς*) distinguished as a portion, not divine but human, of production, that prevents a shadow play of words (*τὸ θευματοποιικόν*)" (Cornford). The Greek, as the above shows, is untranslatable precisely because of these reverberations. Irony, as the 'Sophist' shows is a working element in Plato's analyses, though it is no where made quite clear what the root model is: we have to reconstruct.

The opposite of irony is bragging, pretension, *alazoneia*. The opposition is explicit in Aristotle, and the two words are found together

at Aristophanes Clouds 449. It is traditionally associated with false professional pretensions and the vagrant priesthood. By derivation, it probably means a wanderer, a travelling beggar. In De Morbo Sacro capii we see them included in a list resembling our list in the Laws, but where we should expect 'irony' the De Morbo Sacro gives us alazoneia - showing how unlikely it is that in the Laws Plato is just using irony as a word traditionally associated with deceitful priestcraft:

ἔμοι δὲ δοκέουσιν οἱ πρῶτοι τοῦτο τὸ νόσημα ἐρῶσθαι
 τοιοῦτο εἶναι ἄνθρωποι οἷοι καὶ νῦν εἰσι μάχοι τε καὶ
 καθάρται καὶ ἀγύρται καὶ ἀλαζόνες, οὗτοι δὲ καὶ προσποιέονται
 σφόδρα θεοσεβέες εἶναι καὶ πλεον τι εἰδέναι

The word occurs in a similar context at Charmides 173c.

... καὶ τὴν μαντικὴν εἶναι συγχωρήσωμεν ἐπισημνὴν τοῦ
 μέλλοντος ἔσεσθαι καὶ τὴν σωφροσύνην, αὐτῆς ἐπισημαίνουσαν
 τοὺς μὲν ἀλαζόνες ἀποτρέπειν, τοὺς δὲ ὡς ἀληθῶς μάντις
 καθιστάναι ἡμῶν προφήτας τῶν μελλόντων.

Alazoneia might have been the more natural word to use of Sophists and charlatans - but Plato uses irony. Irony is associated with mean and ostensibly peaceable behaviour. It deprecates anger. It suits Socrates. But if we consider a few dialogues in which the charge is made against him by his enemies, we shall see how it is turned back on his interlocutors. Socrates behaviour looks ironical but is not ironical. The enemy's behaviour looks unironical, frankly aggressive, but it is really ironical. Once the point is established Plato is free to use 'irony' later in the oeuvre in a transvalued sense.

The locus classicus for irony is Republic I 337A. Here the bad tempered Thrasymachus accuses the good tempered Socrates of using his "customary irony". Thrasymachus has already accused Socrates of sticking

to asking questions because it is easier to ask questions than to answer them and because Socrates uses his questions for his own aggrandisement

(μηδὲ φιλοτιμοῦ ἐλέχων 336c). His tone is fierce, his interruption sudden, Socrates *quakes*. Gathering his wits together as best he may,

Socrates says his failure to find wisdom is involuntary, and that mere courtesies would not stand in his way for he is a spoudazon. This is one strand in the charge - Socrates is not serious. But his way of

not being serious is to deprecate himself: ἐλεγεῖσθαι οὖν ἡμᾶς πολλὸν μᾶλλον εἰκός ἐστίν πού τοι ὑμῶν τῶν δεινῶν ἢ χαλεπώτεστα

Irony is something Socrates sinks to in order not to answer. Protestations of Nichtwissen meet with no credence. Socrates ^{φιαντες} (σοφὸς γὰρ εἶ 337a 8) and hopes to get away with a lesson from Thrasymachus without paying for it. This Thrasymachus thinks is a very suspicious sort of naïveté.

The others pay and Socrates says please very nicely (338). 337d 6 (ἡδύς γάρ εἶ). Thrasymachus enters the discussion, like Protagoras, for reasons of self-glorification²²: this is the first point in which his accusation of Socrates turns out to be true of himself. Socrates first attempt at clarification is taken as malice (338d 2 βουλομένους γὰρ εἶ).

Thrasymachus continues his abuse at 340d, where he calls Socrates a sycophant. The exact sense of this accusation is not clear. It could simply mean an eagerness to convict, but there is some sense of doing it in an underhand way. Socrates is sycophantising in the argument, and in his willingness to admit that a doctor who makes mistakes is still a doctor while making the mistake - he is drawing attention to the mistakes. But whatever sycophancy may refer to, the relations of this charge to the

charge of irony are clear: οἷός γάρ με εἶς ἐπιβουλήs ἐν τῷs δόγῳs κακουργοῦντάs εἶρεσθαι ὡs ἡρόμην.

Εὖ μὲν οὖν οἶδα ἔφη· καὶ οὐδέν γε σοι πλεόν ἐσται· οὔτε γὰρ ἄν με λάθοις κακουργῶν οὔτε μὴ λαθὼν βιάσασθαι τῷ δόγμα δύναιο

Of course the argument is reversed and Socrates vindicated. But Thrasymachus does not concede his agreement easily. His reluctance turns into attack at 343f. Socrates responds with a tightening of the rules. Thrasymachus must no longer shift his ground without making his shift explicit: this had been allowed earlier.

(345b 8f 340 cf). The result of the ensuing argument is to force Thrasymachus into a "more stubborn position" (Cornford: *στερεώτερον* 348 e5) in which he says loudly that injustice is admirable. This he says after a little prodding by Socrates who is trying to get into his mind. Then Socrates says:

349ab ἔμοι γὰρ δοκεῖ σὺ, ὦ Θρασύμαχε, ἀτεχνῶς νῦν οὐ
οκώπτεν ἀλλὰ τὰ δοκοῦντα περὶ τῆς ἀληθείας λέγειν.

But where could the serious and adult Thrasymachus have made a joke? He strikes us as a man who always says what he thinks. It seems that Socrates is shifting the charge of irony to him. At 350d Thrasymachus blushes, and from that point on he is sweetness itself. Socrates calls this sweetness of his *πράδος* ²³. But the sweetness is not genuine. It is a mockery of what should be the attitude in dialectic ²⁴.

Thrasymachus long ago withdrew his genuine assent from the argument (350 eff); and his way of showing it is to claim that all his assents are made out of courtesy. ²⁵ The result is that the argument finishes short

of the conversion of Thrasymachus. Now at the very beginning (336C2

κατακλινομένοι) Thrasymachus protests that Socrates does not really want to know what justice is. If he did, there would be fewer compliments and deferrings. At the end of the argument Thrasymachus is full of compliances himself, which are *παρὰ τὴν δόξαν* (350 e 6). Now Socrates nowhere says that Thrasymachus is ironising, but I think the

23. Rp. 353a 12.

24. Infra

25. 351c 6; 351d 7; 35263ff; 354a 10ff.

judgement is implicit at 349a 6. He is made to blush - but thereafter he withdraws assent without losing his ability to further the argument: he marks the split between logic and morality which is fatal to a Socratic dialectic couched in moral terms. Something is lacking in the effect of dialectic on Thrasymachus and I suggest this is because Thrasymachus begins ironising in a bad way, instead of saying what he really thinks. If Thrasymachus is not amenable to dialectic, all the resources of education will be lost on him, and he is incorrigible.

The case is clearer at Gorgias 489E:

Socrates: καὶ ὦ θαυμάσιε πρῶτότερόν με προδίδασκε ἵνα μὴ ἀποφοιτήσω παρὰ σοῦ

Callicles: Εἰρωνεύη, ὦ Σώκρατες.

Socrates: Μὰ τὸν Ζῆθον, ὦ Καλλίκεδαι, ὅτι σὺ χρώμενος παλὴν νυνδὴ εἰρωνεύου πρὸς με.

One notices that the irony consists in self depreciation. Socrates is Callicles' pupil. But there are other concepts belonging to the nexus:

Socrates is accused of φλυαρία (Gorg. 489b7 - Rp.336b 9); of not being serious (σπουδάζειν / βαλίζειν Gorg.481b 6 f - Rp.336e 9). His suggestions are dismissed as naive (ἡδύς ἐστι Gorg.491e 2 - Rp.337d 6).

But Socrates is much more emphatic that Callicles is an ironiser: the charges are *turned* at the following points (a) 490e 9f. Socrates always says the same things about the same things; while Callicles does the opposite. It follows that Callicles' word cannot be relied on. (b) 497a

Callicles says he doesn't understand Socrates' clevernesses (οὐ γὰρ σοφίζῃ).

Socrates replies that he understands very well but pretends he doesn't.

(ἀλλὰ ἀκκίζῃ). The word used is not common, so we cannot be sure of its meaning in Plato's time. But in all subsequent times it refers to coyness, prudishness, false female innocence. It fits the virile and shameless Callicles ludicrously. This is surely 'irony' turned as a charge on Callicles. (c) From this point on Callicles professes to know nothing

(498d; 505c; 511a; 513c 4.) He withdraws his assent from the argument, but like Thrasymachus can still follow it. He is only pleasing Gorgias and helping to finish the argument. (497b 4; 501c 7; 503d 4; 506; 510; 522e 7), we compare Thrasymachus' refusal to admit ἀπορία

(d) The charge of paizein made at 481b 6f; 485a-d is turned against Callicles at 499bc, when Callicles tries to escape by alleging that he is not serious! This contradicts the statement of serious intention that Socrates puts such a price on extracting at 495c. Now the sense of paizein as explained there is the adoption of propositions without belief.

(e) To make the similarity to Rp.I even closer, we are given the rule that answering πρὸς τὴν δόξαν destroys the force of the argument (495a 5f) Callicles agrees to this rule suspiciously quickly only to claim later as we have seen that he was not serious. He gives most of his remaining answers merely for the sake of argument. No doubt he would be caught blushing like Thrasymachus, if the form of the dialogue were indirect narration rather than dramatic. But the important point is that he gives answers he does not believe, and never examines his own thoughts - doesn't, as it were, wash his dirty linen in public as Socrates always does.

(f) A dialectician is πρᾶος (489d 7)²⁶, but this never becomes even a front for Callicles. Many critics have pointed out the "lifelikeness" of Callicles - he has his own character, which does not reduce to Thrasymachus. However, he does learn not to obstruct Socrates flow of argument, and this is the methodological effect of praotes.

In both dialogues the charge of irony is related to Socrates claim not to know - he learns, or tries to learn, from everyone, but he does not know why he never succeeds in learning anything. The charge of irony is directed against Socrates' claim not to understand the methods of his own destructive arguments. Of course this does not imply that Socrates claimed not to believe any of his beliefs, or even not to know them: it

26. ct.violence: a charge brought against Socrates and turned 482c 4; 505d 4; 508d.

simply amounts to a claim that his arguments do not pre-suppose any (special?) knowledge of the subject, and in that sense are more certain than an ill-defended "knowledge". The charge of irony is turned against the interlocutor not on the grounds that he pretends to know what he does not - the Greek for that is an alazon, but on the grounds that he "ironises and would do anything rather than answer" (cf. Rp. 337a 6) straight questions about his beliefs^{26a}.

The concealment of the aporia is found againⁱⁿ the Charmides 169c 3ff. Critias is a Sophist - but in the dialogues also the friend of Socrates. Like Protagoras^y Thrasymachus he takes part in a discussion in order to be well thought of (169c γεωδοκμῶν). The situation is described as follows:

καὶ οὐτε συγχωρήσαι μοι ἡθελεν ἀδύνατος εἶναι διελέσθαι ἢ
προδικαλούμενην αὐτόν, ἔλεγεν τε οὐδὲν σαφές, ἐπικαλὺντων
τὴν ἀπορίαν

(cf. Laches 196b).

This is one respect in which Critias resembles other Sophists, though the tone is considerably less acrimonious. Nevertheless he is conscious of dialectic as a public fight that someone wins, and this leads him to turn a methodological criticism of Socrates into a personal one. When Socrates asks what good thing (understood as "what material benefit") does Sophrosyne obtain for us, he replies that Socrates is using a "likeness" to other "skills" where there is no likeness. Socrates changes his tactic and argument, but Critias claims he is making the same mistake:

166c 3ff: καὶ ταῦτα σε πολλοῦ δεῖ δευθῆναι, ἀλλὰ γὰρ οἶμαι
δ' ἄρτι οὐκ ἐφύσθαι ποιεῖν, τοῦτο ποιεῖς. ἐπεὶ γὰρ ἐπικειράς
ἐλέγχευ, ἔλασας. περὶ οὗ δὲ λόγος ἐστίν

Socrates answers that personalities are not at stake - as long as he answers what appears to him to be the case. But later Socrates makes a similar charge, only he is justified because Critias has claimed to know what sophrosyne is.

26a. For the view that Meno 80d 5f. is an accusation of irony, see Moline, J.:
Meno's Paradox? p.153-61. Phronesis, 1969.

174b 11: ^δΩ μισέ, ἔφην ἐγὼ, πάλαι με περιέλας κύκλω
 ἀποκρυπτόμενος ὅτι οὐ τὸ ἐπιστημόνως ᾔν' ἔην τὸ εἶ
 πράττειν

(cf. 161b 8).

Now at 166c 3ff. the charge of 'insincerity' includes a charge of conducting the argument in an ostensibly innocuous manner. At 174b 11, this cannot be true. It pleases Socrates to imagine that his interlocutor had known the truth all the time - that, no matter how obviously unironical his behaviour, he was in fact concealing his knowledge, claiming to know less than he does know. 174c is not a protest against being dragged round the mulberry bush but a protest against cunning concealment. The pathos to which these lines refer is a common one in the dialogues. It seems that Socrates has the dialectical skill to turn any argument upside down, but the fault lies not in his skill, but in the interlocutor who conceals the truth from Socrates, who does not take him seriously, who issues playful and enigmatic replies and who refuses the challenge of the aporia, escaping into argument for the sake of argument, or for the sake of reputation, against the tenor of his own beliefs. The refusal of the challenge of the aporia, seems to be the crucial element in the Rp. and the Gorgias, and their link with the ironical men of the Sophist and the Laws. The development of the word, though it shows the signs of a polemical retortio, must not be dismissed as that, because Plato follows it up. He blames the mind or character of the Sophist for the fact that irony does not 'take'. The sophistical mind is not open to inspection because argument does not mirror it. The many arguments of the Sophist might be arguments of as many Sophists for all the coherence they have in relation to one another. But the Sophist never notices this, or at least, the Sophist is so clever that he can always reconcile his own arguments one to another. The rest of us must examine our own opinions and only our own opinions (101e 5 Phdo; 154d 8ff. Theæt. etc.:).

The examination of the contents of the mind matters: the Sophist has already got over this stage:

Theæt. 154d 8: "ὁρκεῖν εἰ μὲν δεινοὶ καὶ σοφοὶ ἐγὼ τε καὶ σὺ ἦμεν πάντα τὰ τῶν φρενῶν ἐξητακότες, ἤδη ἂν τὸ δοῖν ἐκ περισσοῦς ἀλλήλων ἀπουπερώμενοι, συνεδρόντες σοφιστικῶς εἰς μάχην τριαβάν ἀλλήλων τοὺς λόγους τοῖς λόγοις ἐκρούομεν

"

Plato does not seem to be protesting against myriad-mindedness simply because it is myriad-mindedness. It is a dialectical fault he is examining. Now this dialectical fault is not the sort of thing one thinks up after an examination of arguments as a set of propositions, but after examination of the effect of argument on people. We understand the extent to which Platonic arguments are psychological, and when this is spelt out for us by Aristotle we leap to the conclusion Aristotle is talking about a dialectic historically different from Plato's. In the case of 'bad' irony, a charge made originally against Socrates has been affixed to a certain type of dialectical behaviour.

The fact remains however that Socrates does seem to have behaved in an ironical way. Plato must show the good side of irony. We have seen how he does this in the Symposium - irony there refers to his contempt for irrelevant things, his single-minded search for truth - and a certain austerity later taken up by Antisthenes. An example of this sort of behaviour - but is it Laconism? - in Socrates comes at the beginning of the Charmides. After playing a distinguished part in the retreat from Potidaea, Socrates^{is} asked the evening after his arrival in Athens by the emotional Chærephon, how comes it he is safe (πῶς εἰσώθης ἐκ τῆς μάχης), and he replies "As you see." When asked "did you see the fighting?" (παραγένοι μὲν ... τῇ μάχῃ) he replies: Yes (παραγενόμεν). We do not 'doubt' that his ensuing account of the battle was given in the same style: καὶ ἐπιτεκῶς .. ἀγῶν ἀνὰ γὰρ τῷ (153c 2). At the beginning of the Symposium we find him

washed and beslippered - not his usual way of appearing in the streets.

He tells us *ταῦτα δὲ ἐκκαλωπιοσάμεν ἵνα καλὸς παρὰ καλὸν ᾖ*

(174a 8/9). But the main interest for us lies in Plato's conversion of

irony into *παίδειά*. We have already noticed it at Cratylus 384c 4:

Socrates says Cratylus is not ironising: *ὅτι δὲ οὐ φησίσσι
ἔρμηνεον ὄνομα εἶναι τῇ ἀληθείᾳ ὥστερ' οὐκ ὁπότερ' αὐτὸν
σκώπτειν.*

Robinson writes that Plato abandoned irony²⁷. "The passage in the Sophist (229E - 230E1) makes no mention of irony and asserts that elenchus makes the 'patient' angry only with himself, but gentle towards others. The Seventh (p.19) Letter requires that elenchus shall be conducted in a friendly manner. ... The elenchus which Plato came to approve was a contest in which both parties openly admitted that the questioner was trying to refute and the answerer was trying not to be refuted. It was the formal and open exercise for which Aristotle wrote rules and limits in Topics." It will appear in the course of the essay that I think this paragraph is misdirected. Specifically, "friendliness" and irony are by no means incompatible. One of the functions of dialectic in the Gorgias and Rp.I is making a man *praos*. If the charge of irony disappears from sight in the later dialogues, this is because Socrates nowhere meets the type of man who is likely to charge him with it, and nowhere even in the early works does he refer to his own methods as ironical. If we are right in supposing that Plato's notion of "irony" is a part of his analysis of Sophists, then we have a readymade reason why it is not found in later works, though he comes near to accusing Zeno of it:²⁷

*ἀλλὰ πρῶτον μὲν σε τοῦτο λανθάνει ὅτι οὐ παντάπασιν οὐδὲ
σεμνύσθαι τὸ γράμμα, ὥστε ἅπερ οὐδέ τις δέχεται διανοοῦσθαι γραφῆναι,
τοὺς ἀνθρώπους δὲ ἐπικρυπτόμενον ὥς τι μέγα διαπραττόμενον
ἀλλὰ οὐ μὲν εἶπες τῶν συμβεβηκότων τι...*

The same sort of charge is made against Protagoras²⁸ in Theaetetus

27. Parm. 128b 3ff.

28. Theaet. 162a 2.

ὅτι μακρὰ μὲν καὶ δωδύριος φρουρία ἐν ἀδελφῇς ἢ
 Ἀλφειῶν Πρωταγόρου ἀλλὰ μὴ καί ζουσα ἐκ τοῦ ἀδελφῆ
 τῆς βίβλου ἐφθέρξατο

Here of course Plato is complaining about books²⁹ as well, and that includes his own books which are a sort of paidia. This of course is not to condemn books utterly, because paidia seems to be a principle of life in the Laws³⁰. The notion of paidia in Plato is too wide to be broached here; but we can say that part of its point is pedagogic - to promote an active attitude of mind to what is read or heard. In education paidia promotes criticism - and has the added advantage, that any criticism will also be paidia. The essential difference between paidia and elenchus is that paidia makes the ironical assumption: Protagoras is a great man: he must know what he is talking about - while I (who have just disproved it) must be mistaken and callow.³¹ Of course other considerations enter into παιδεία - youthful agility, youthful freedom to take a fall. The attitude of a pedagogue towards the game must be ironical, simply because otherwise he would win too easily. Yet the pedagogue must direct the game. We have the example of at least one grateful pupil: Phil.30e.

Protachus: ἔχω καὶ μάλα ἱκανῶς καίτοι με ἀποκρινάμενος ἔλαθες

Socrates: ἀνδρὶ οὐδὲ γὰρ, ὅς Πρωταρχε, τῆς σπουδῆς γίγνεται ἐνίοτε ἢ
 παιδεία

Whether Plato will call this sort of pedagogy ironical I do not know. Socrates might coax and flatter young men into doing philosophy, but the scheming malevolence which is part of the full concept of irony is removed from it. Self-denigration diminishes in the later works, but even in a constructive dialogue like the Philebus, Socrates pretends not to know where he is going. "We ought to have collected that family which shows

29. cf. Prgs. 329a; Phdr. 277e; Ep.Vn 341b ff.

30. Laws 685a, 764e; Parm. 137b.

31. Theæt. 152c ff; 162d 2f; 164e 2; 168c 6; Ch. 161c 9; 162a 10 ff; 164e 6. Soph. 241c 4f ἐκράδως = off hand etc., Philebus 18b; 20b; 25d; 28c.

the character of limit; but we didn't. Still perhaps it will come to the same thing in spite of that..."³² But in the Philebus, we have Socrates trapped - he must explain everything he says: and this is the death of irony. Protarchus' final speech is reminiscent of Socrates gibes on so many occasions:

Σμικρὸν ἔτι τὸ λοιπὸν, ὦ Σώκρατες· οὐ γὰρ δήπου σύ γε
 ἀπτερεῖς πρότερος ἡμῶν, διδομνήσω δέ σε τὰ δειπώμενα

(67b 11f).

This odd reversal of rôle reminds us that irony is the ploy of a superior towards an inferior, of an old man to a young one. Irony with pedagogic intent is good; irony with sophistic intent is bad. So many of the phrases shared by Plato's Socrates and Theophrastus' ironical man are perfect pedagogical devices³³:

καὶ τὸ ὅσον σεύδης τοῦ τοιοῦτου τρόπου τοῦ λόγου χρησθῆναι
 'οὐ πιστεύω' 'οὐκ ἀπολαμβάνω', 'ἐκπλήττομαι', καὶ 'δέξεις
 αὐτὸν ἕτερον γεγονέναι· καὶ μὲν οὐ ταῦτα πρὸς ἐμὲ διεξήκει,
 παραδοξὸν μοι τὸ πρᾶγμα... ('ἀλλ' ὅρα μὴ σὺ θάττον
 πιστεύεις

In addition to the irony of the educator, Plato practises the irony of the writer: what is the value as historical evidence of the statement that Plato had fallen ill before or on the day Socrates died?³⁴ (Πλάτων

δε οἶμαι ἡσθάνει). (= irony according to Theophrastus I.4).

He enters or inverts his character's ignorance to give the impression of a realistic narrative³⁵. It is common for a character of his to fail to

32. Ph.25d.

33. Theoph. Ch.1.6.

34. Phdo.59b 10.

35. Ptg.314c; 315e 1-3; 361d 7ff;

remember³⁶, or for Plato to conceal the identity of the sources of the theories he discusses³⁷, which may very often be his own, and consequently his concealment may come under the banner of irony. But the additional and even wanton irony we find in the dialogues may not have seemed irony to Plato. I am referring to the sort of irony Cornford says:³⁸ "is not a deliberately invented artifice; it arises of itself in the advance from the purely symbolic stage of drama. In that earliest stage, the whole dialogue might be called ironical in the sense that it is the poet's message to the audience, not the expression of the person's character..." But when he excludes mention of himself from his dialogues, when he leaves arguments unresolved, or when he refers in one dialogue to the results of another without mentioning a name or giving a hint, when he wilfully misrepresents poets and previous philosophers - all this must have struck him as irony and not all of it was imitation of Socrates.

We have seen how irony is converted from a calumny of Socrates into a Socratic virtue. That virtue is variously imitated: in some, like Antisthenes, it becomes boorishness. For the Aristotelian notion that a gentleman should adopt an ironical bearing towards his inferiors is a product of Plato's experience, and of his brand of imitation of his master.

~~It~~ is as near as the Ancient World comes to charity; and as such more appropriate to the Alcmaeonid, the last link of later Greeks with the Great Generation than it is to the aggressive Socrates³⁹. Others⁴⁰ emphasise the continuity between Socrates and Aristotle: the needs of Socratic pedagogy bring about an anomaly in the description of the Aristotelian Great Souled

36. Phdo. 73a 5; 103a 5; Theæt 201c ff.

37. Theæt. 172b 6; Philebus 44B; Soph. 242c 8f; 246a 7ff.

38. Thucydides Mythohistoricus p.148.

39. Apollon shared by Burges 1969 p.16 for different reasons.

40. Bergson 1971 p.3 quoting Deman T. 1942 p.56.

Man - he is *εἰρωνὺς πρὸς τοὺς πολλοὺς* (E.N. 1124 b 29).

Aristotle uses the word both for a strategy and a character⁴¹. He schematises - aletheia is the mean, alazoneia the excess, and eironeia the deficiency which is the case is 'better' than the excess⁴². Later writers inherit the schematism or simplify the word still further

e.g. Rhet. ad Alex: 22 *εἰρωνεία δὲ ἔστι λέγειν τι μὴ προσηγορεύμενοι λέγειν, ἢ ἐν τοῖς ἐναντίοις ὀνόμασι τὰ πράγματα προσαγορεύειν*

43.

Somehow it becomes specially connected with the Athenian character Timon of Phlius talks of a *μωκτὴρ ῥητορομῶκος ὑδατικός εἰρωνευτής*

44.

Timon is referring to the literary tradition in which as Demetrius reminds us, such writers as Polycrates and Aeschines Socraticus came close to "irony", even though we cannot be what he means by it.⁴⁵ But Demosthenese the Orator claims that the Athenian demos is renowned for its irony. Here the word is very close to cowardice, to talking and not doing; and provides our only examples of the word used in a context not influenced by the philosophical tradition apart from the Aristophanes-loci. Demosthenes charges the Athenians with two things - eironeia and bradutes both of which are habitual. This is an odd thing to say about a body known for its fickleness, and alertness.

οὐδὲ τῶν πραγμάτων οὐ μὲνουν καιροὶ τὴν ἡμετέραν βραδυτητα καὶ εἰρωνείαν.

(37). Irony

41. e.g. EN 1108a 30; 1124b 29f; 1127b 20ff; Rhet. 14201; 1379a 34; Physign. 808a 27.

42. EN 1127b 20.

43. Büchner p.345 f. Gives the fullest account of the words subsequent history cf. Pavlovskij 1968 p.22-41.

44. Timon 25.3.

45. W.Rhys Roberts 1902, §120; 292.

46. IV, 7; 37; IV 18.

seems to mean fighting a coward's battle - a defensive war. The remedy is to hazard one's body or pay one's taxes (or give voluntary contributions) (7). We can well imagine a charge against the Athenians as follows: "You are cowards: you cheat, you talk high, you buy allies. You fight defensive wars from within your citadels and never come out into the open. But really you are the most envious and ambitious of nations. Never fear, your wordy deceit, your democratic processes will be the death of you."

... But this is speculation. All we are entitled to is the suspicion that philosophical and non-philosophical uses of the word developed in different directions; and that in the Platonic dialogues we can watch the word being twisted to fit the people who applied it to Socrates. In that twisting and redefinition the "parameter", as it were, is dialectic, and a man's response to dialectic is the "thing measured". The analysis of personal reactions, the choosing of the right type of man is part of dialectic from the beginning. But the intention is to find the educable man, not to test the morality of the interlocutor. The Sophist is not condemned for "insincerity" but for having an undialectical nature. It is not a "psychological" statement.⁴⁷

47. Schærer 1938 p.52. La sincérité Socratique est laborieuse, méditative, ennemie de toute spontanéité.

II

Similar developments are found in the concepts of gentleness, moderation (ὑπέρτος, ἡμέρος) and of youth and age viz. the concepts are defined with reference to dialectic.

We have seen that anger is the wrong behaviour for a dialectician⁴⁷ but a common reaction of the sophistical man - Protagoras⁴⁷, Callicles and Thrasymachus each lose their temper and refuse to finish the discussion validly. Even at this stage, then, it is clear that Plato was conscious of the need to avoid rousing the anger of his interlocutor; and he attempts the task of gentle reeducation even in the Protagoras. It is instructive to notice that one of his difficulties is the proper treatment of seniority.

After an outburst from Protagoras, he begins his elenchus as follows: he separates Protagoras' honour from the fate of the argument by putting the whole thing into what others would say⁴⁸; later he says⁴⁹ (Guthrie) "I fear that our questioner is ill-mannered, he will laugh and retort: What ridiculous nonsense" Guthrie's "ridiculous nonsense" is rather too strong: 'geloion ... pragma' is a favourite expression of Socrates. The fictitious questioner merely points out a contradiction - but because of Protagoras' character this simple act must be performed with great circumspection. Protagoras' quid proquo is to humour⁵⁰ Socrates (χαριεῖναι οὐδὲν σοί) Socrates' device is paralleled in Hippias Major (303e); and the connotation of ὑβριστής is settled by Meno 76b:

ὑβριστής γ' εἶ ἐὼ Μένων· ἀνδρὶ προσβύτην πράγματα
προσέειπεν ἀποκρίνεσθαι

47. Ptgs. 360d 9; 333e.

48. 352 eff.

49. 355c.

50. Ptgs. 360 e4.

spoken when Meno is pressing for a yet further favour (*βούλει σοι χάρισμα*)⁵¹. Meno's position vis-à-vis Socrates is Socrates' position vis-à-vis Protagoras. By the conventions of the times, a young man who contradicts (*ἀντιλέγει*) his elders is at fault. It is unseemly for an old man to argue on equal terms with a younger first because the old man is old⁵² and second because ~~his~~^{his} muscles are no longer supple⁵³. Youth and age is one of the motifs of "dialectic" and just as the word "conversational" itself covers several "methods" so the motifs of youth and age are put to different uses at different times. The first use is simply to record the fact that one man knows more than another.

Young men occupy themselves with philosophy and natural science; ~~in~~ which ~~the~~ terms in Plato are *ἀδολεσχεία*,⁵⁴ but ~~later~~ he develops an ironically more pejorative use - *παιδική* - boys discuss certainly, but Socrates is mainly interested in young men for whom this word is an insult. But though young men discuss with facility, they are sometimes frozen by worthless arguments simply because they have not heard them before. The tension between the virtue and the vice of youth is everywhere evident in Plato. It is not something foisted on Socrates by a reactionary Plato, but part of a genuine analysis of the dialectical situation.⁵⁵

In the Gorgias we find Socrates complaining to the older Gorgias that Polus attempts elenchus without understanding what he is arguing against: the situation is described as follows -

ὁδοῦ γὰρ ἢ τοῦ σφῆτος λέγω, Πῶτος δὲ ὅδε νέος ἐστὶ καὶ ὀξύς

(Gorg. 463e)

51. 76b 4; 75b.

52. Laws 892d ff.

53. e.g. Theæ. 162a

54. Phdo. 96a 6 ff. Phdr. 270a

55. cf. Popper⁴⁹, 134; cf. Gould Platonic Ethics p.66, 81. 1955.

Gorgias relieves Socrates of his natural reverence for Gorgias' age (463a 5) Callicles' attempt at elenchus leads him into strong and disputatious language (τὸ νεανικώτερον 508d). Callicles himself accuses Socrates of childishness (485a ff.). The 'matrix' for this usage seems social - what would happen in any conversation between Greeks on such subjects.

Preliminary arguments are sometimes described as attempts to frighten young men with bogies - τὸ μορμολύττειν. The *Μορμώ* is a "she goblin used ... to frighten naughty children."⁵⁶ It is used by Cebes of his residual and irrational doubts about a preceding argument which is of course a strong argument⁵⁷ and the doubt is satisfied by prolonged argument. In the Theætetus Socrates brings out a string of prefabricated eristical objections to Protagoras' dictum. True to his dialectical ability, Protagoras protests⁵⁸: these are old stories fit to frighten young men. Socrates, he says, is taking advantage of youth, which cannot foresee (προορᾶν) the consequences of an answer. The young should not have refrained from granting that a man can remember and not remember. Similarly Dionysodorus and Euthydemus strike terror into Socrates and the young Kleinias.⁵⁹ The 'young' Socrates is perplexed by the wisdom of natural scientists in the Phædo; and makes mistakes in the course of his famous conversation with the old Parmenides, who tells him:

νέος γὰρ εἶ ἐπὶ .. νῦν δὲ εἶμι πρὸς ἀνθρώπων
ἀποβλέπεις δόξαι δὲ τὴν ἡλικίαν

We discover more about the rôles of youth and age in dialectic by investigating the Theætetus further. The usual relations obtained between a younger and an elder, but as something foreign to a dialectic in a technical sense, but natural to a conversation. A question like "what is knowledge?" interests a young man. It is not because he knows nothing but

56. Phædo 77e 5, Burnet; Crito 46C Adam.

57. 992d ff.

58. 166abc.

59. Euthyd. 303; 302 b 5; 275d 5.

because he is young that he is puzzled by certain philosophical problems.⁶¹

The succeeding arguments are mainly destructive and highly abstract until at 162d Socrates gives the game away: νέος γὰρ εἶ, ὃ φίλε παῖ· τῆς οὖν δημιουργίας ὁξέως ὑμῶν καὶ πέθῃ

What is marked as 'young' is the instability of opinion which ^{is} the perfect analogue for the reversals of dialectic. The easy recourse to the opposite opinion. But Socrates has to attempt to salvage Protagoras a

second time in a dialectical defence beginning at 166 a-c. Theodorus claims of this defence: παίζεις ὡς ὧκραις· πᾶν γὰρ νεανικῶς τῷ ἀνδρὶ βεβούθηκας

⁶². Now Theodorus

is dragged into the discussion, to prevent any παιδικόν τι... εἶδος τῶν λόγων from slipping into the argument,⁶³ and it is only when

words are readmitted into the discussion as a focus of interest that Theætetus once again becomes interlocutor⁶⁴. In the meantime, Socrates

has discussed with Theodorus matters of fact - ~~the~~ nature of the Heraclitean school, the disadvantages of the rhetorical life. These are things known by experience, and an old man's experience ^{is superior} to a young man's.

Theætetus wants Socrates and Theodorus to examine the opinions of Parmenides, which require older heads than his; but instead the investigation turns itself once again to the deliverance of Theætetus.

Essentially, the same points are made in the Sophist: youth is peculiarly susceptible to reversals of opinion, to ~~being~~ ^{being} by the opinions of men: 265 d (Cornford). Theætetus says "Perhaps because I am young, I often shift from one belief to the other; but at this moment looking at your face and believing you to hold that these things have divine origin, I too am convinced..." Some people who come to dialectic too early are disappointed because they quickly exhausted words and never dealt with their physis. This was always Plato's point - short discussions must be

61. 148 e.

62. The. 168 c 6.

63. 169 c 9.

64. 184 c.

about physis. Theætetus agrees "so far as (he) can judge at his age".
(234 d).

But Theætetus is acknowledged to be worth a dozen grey beards.⁶⁵
Mere age does not protect a man from nefarious effects of premature
dialectical questioning. For it is quite possible to reach old age
without any practice in them - and then to become a foolish opsimath.
Such old men fall victim to young men's errors.⁶⁶ Far from being an
eulogy of old age, the Laws passage about not trusting old men to the
stream is a reiteration of Plato's insistence on the importance of a
formal dialectical education. At the same time, the Athenian could not
undertake an enquiry of such magnitude except in the company of men of
great experience - who are more the Athenian's equal in this respect than,
for example, Glaucon is the Republic who is refused the higher path.⁶⁷

The Eleatic Stranger instructs Theætetus and for that reason
Theætetus must not hold up the process with youthful angers and untimely
expostulations. The Greek for having a smooth informative discussion is
διαλέγεσθαι πρᾶως. When the Stranger is in doubt how to dispose his
material Socrates tells him: ἔξεσι τοίνυν τῶν πρόβων ὃν ἂν
βουληθῆς ἐκλέξασθαι, πάντες γὰρ ὑπακούσονται σοι πρᾶως.
The word connotes the correct partner for Socrates - an even-tempered man
who can be corrected. It is so common as to be technical.⁶⁸ It is a virtue
of Theætetus⁶⁹.

Only against this background can certain Platonic doctrines be
properly understood.

The first such doctrine is easily dealt with - the cathartic rôle of
dialectic, destroying false opinions. But it can do this only if a man is
more ready to be angry with himself than with his interlocutor. Corrigi-
bility (ἡμερότης) is a condition of dialectic in Sophist 2316 ff.

65. 168 c 4f.

66. Euthyd. 272 b 5 ff; Soph. 251 b 5; Phil 14 de; Rp. 487 b; Laws 892 de.

67. 533 a; 531 d; 534 b 1, 2.

68. e.g. Rp. 354 a; Gorg. 489 d; Phdo 116C; Laws 888 a.

69. Soph. 217 d. The. 144 b 5; 151 c; 161 a 6.

Plato claims that socialising, civilising is a virtue of dialectic when practised by

The second doctrine is the rule at Rp.539, that dialectic should not be permitted to men and women under thirty. Popper is trenchant.⁷⁰ "Plato's reason for this amazing rule is clear enough. He is afraid of the power of thought." Similarly Popper says of Parm. 134 ab⁷¹: "It looks as if we had here (among other things) Plato's answer - 'Even a Socrates was once too young for dialectic' - to his pupils who pestered him for an invitation [to dialectic] which he considered premature". But surely Plato's rule is mere recognition that dialectic is not enough. Dialectic was never the open-minded search for truth according to impersonal rules of debate that some people like to imagine. Instead it was an examination of older or younger men the results of which were stated as facts about older and younger men, and not simply as "moves" of verbal argument. Hearing the truth from an older man is both a Socratic and a tribal stance; nor is there anything unlikely in the supposition that Socrates himself relied on the respect due to age to avert captious objections. He associated only with those whom he could benefit - this is an assumption of pedagogical superiority.⁷² Plato's Socrates is a man who has looked into most things, and found technical knowledge unsatisfactory i.e. he has surpassed but not by passed the specialisms⁷³. The same path must be trodden by the Guardians. There seem to be no grounds for rejecting this "sophistication" as a trait of the historical Socrates.

Whether the rule of Thirty was observed or not at the Academy is a difficult question to answer⁷⁴ if we limit ourselves to evidence-chopping.⁷⁵ But it is highly unlikely that a set of young men who had been attracted into the Plato's circle by proptreptics written, like our dialogues, in praise of dialectic could have been kept off dialectical subjects for so long. Without going into the dreadful question of the *agraphe dogmata*,

70. Open Society p.133.

71. p. 134.

72. e.g. Alcibiades I 103a 5 ff.

73. Phdo 96 ff; 60 d ff; Ap.21 b ff; Euthyd 272 cf; Crat.384c; Laches 197 d etc.

74. Cherniss 1945 Cap(III) esp.69. 75. Levinson 1953 p.465 f; Vlastos Gnomon 1961 p.641-55 esp. 650, 654.

we can see that Plato is planning an ideal situation, for perfect men. The quality of the men produces the quality of the ideas. Popper has recently constructed a Third World⁷⁶ inhabited by written theories independent of thoughts and meanings. For Plato, however, propositions are what people think and live by: all true argument is with the Spoudazon. The 'third world' is pure paidia and paidia is only a part of the Socratic conversation. This cleavage between the development of Plato and the development of Popper makes clearer the opposition between the process of elimination and corroboration of theories by the hypothetico-deductive method, and the concrete Platonic dialectic.

Plato also has a doctrine about the best sort of constitution - political, psychological or academic. It is startling like his analysis of what is right with Theætetus and wrong with Callicles. The good man or the good pupil or the good dialectician combines two opposed qualities. The doctrine starts, we claim, when Plato urges his interlocutors to state their positions boldly, but to accept correction mildly. The theory lasts his lifetime:

Laws 731 a:

θυμοειδὴ μὲν δὲ χρὴ πάντα ἄνδρα εἶναι, πρῶτον δὲ
ὥς ὅτι μέγιστον

The famous watchdog of the Republic, which barks at what it does not know, is not (pace Popper) Plato's reason for adopting this doctrine, though dog-breeding and horse breeding may have been an Alcmaeonid occupation. The watchdog is a dialectician because he combines gentleness (πραΰτης) with τὸ μεγαθύμον ἦθος, τὸ χαλεπὸν⁷⁷. The combination reoccurs in the Timaeus Summary of the Rp (17 d 4 πρῶτως χαλεπούς). The physis that fits a man for guardianship fits Theætetus

76. Objective Knowledge ii; Epistemology without a Knowing Subject p.106 ff.

77. Rp. 375 cf. Laws 888 a 6.

42
for intellectual pursuits especially dialectic.

Τὸ γὰρ εὐμαθὲς ὄντα ὡς ἄλλω χαλεπὸν πρᾶον αὖ εἶναι
διαφερέντως καὶ εἰς τούτους ἀνδρείον παρ' ὄντινόν ἐγὼ
μὲν οὐτ' ἂν φόβον γενέσθαι οὐτε ὀρώ γιγνόμενον

The: 144 a 3-6 cf. 144 b 5.

Wherever it occurs it is an object of wonder, because it is paradoxical that such a combination could ever occur. They are the qualities of the first generations of Atlantis, in whom the divine element predominated, and where the virtues occur in a form ready to pass into the Nicomachean Ethics - men had great souls but were even tempered in little things.⁷⁸ The kingly art of the Politicus has for its junction the interweaving of the aggressive and the gentler virtues.⁷⁹ Whether Plato's attention was first drawn to single out these qualities by his consideration of dialectic, or whether (and it is less likely) he first examined society and then noticed the importance of the combination in dialectic, it is clear that analysis in terms of *πραότης* *καὶ χαλεπότης* is, for Plato, part of dialectic, part of the argument.

The nature of Plato's analysis of dialectic becomes clearer if we trace the development of arguments between one dialogue and the next on two topics - the Forms, and the existence of God or the Soul. We deal only with his report of his own arguments - his Auseinandersetzung with himself. The two arguments are connected, since the admission of Forms is also the admission of the Unseen - the world of gods and souls, though of course the reverse is not true. Now it is quite clear that Plato never argues for the existence of forms - he seems to assume acceptance of them, referring to "what we are always saying ... " and whose existence is granted by the interlocutor⁸⁰. In other places he expresses relief that the report has been granted without more a do. If he alleges any reason for granting the point, it lies in the physis, the profession or the dialectical experience

78. Critias 119 e 3f. .

79. Pol. 306 ab.

80. Phdo 75 d; 100 b; Rp. 507 a 7; Rp. 476

of the interlocutor. Socrates thanks Theætetus, Socrates thanks Theætetus for admitting that 'very', 'like', 'equal' and the like are investigated by the soul itself.⁸¹ Essentially the same point is made in the Sophist: the seen and unseen are separate genera, yet 'being' and its companions must cover both.⁸² Socrates distinguishes between the convincement of 'friends of Forms' (the question of whose identity we may ignore) and the corporealists - who drag everything back to the body. Now the alleged reason why the friends of the Forms are easier to convince is not that they already admit something incorporeal. ~~But~~ that they are *ἡμερώτεροι*. The word cannot refer to their psychology, so much as to their behaviour in dialectic. The "materialists" who seem to be natural scientists and polymaths rather than anything we would recognise, as materialists, have to be made more law-abiding - because then their agreements, concessions or *δημολογίαι* will be more binding (*κυριώτερον*). It is only after they are made more law like in imagination (or in dialectic? *λόγῳ*) that they will answer questions at all.⁸³ Obviously Plato complains about the difficulties of conversion among the lesser breeds without dialectic, and the specific flaw is that their agreement is not their bond. Here we are close to our Callicles and Thrasymachus now assimilated to the type of Sophist. But instead of presenting us with a "realistic" picture of their disagreement (which some commentators have mistaken for "freedom of discussion") he proceeds to discuss what they should say, if their word were their bond and if they would submit to question and answer methods.

"But we ignore their personalities, and ~~Continue~~ are searching for the truth." We have the feeling that it is fitness for dialectical cooperation that is in point. Only those who share Socrates' ideals and goodwill can cooperate in attempts at construction.

81. 185 e 5f. Whether this is really about substantially existing forms is irrelevant: the concepts are summarised as if the interlocutor had prior knowledge.

82. Soph. 247 d.

83. 246 de.

Callicles, Thrasymachus and the Titans have contempt in common (246 b 2) and this contempt prevents them from listening. Contemptuous⁸⁴ too is the atheist of Laws X who seems to be assimilated to the same type. It is instructive to compare the final "dialectic against the Sophists". With the earlier dialectics. The main difference is that in Laws X, Socrates has more opportunities than he has in the early dialogues - for he educates the young, and makes Laws against reprobates. But he has a difficulty - neither of his interlocutors is of the quality required in a dialectical partner⁸⁵ which testifies to the weight Plato's attaches to their moral worth, or their sheer experience. The three men are the most impersonal in Plato - simply constitutions embodied. Their knowledge comes from outside the word-business of dialectic. The Cretan and the Spartan provide the consensus sapientium, which is their first argument⁸⁶, and in the matter of the young and inexperienced, this is not a bad argument. Socrates rejects it however because he is more interested in the problem of the misinterpretation of knowledge. Now just as in the problem of the Sophist, he meant something different, from what we mean by materialism, so in the Laws, he means by atheism something different from what we mean by atheism. He appears to mean a mixture of superstition and positivism. The superstition man thinks he knows where the gods are - in all sorts of undesirable places; the positivist thinks he knows where the gods are not - not in desirable places, like the heavenly bodies. Both of these positions are the outcome of pretended knowledge; and this is the claim the Athenian does battle with. He expressly excludes the impiety of young cubs - because they would grow out of it. Quite in the style of a penal-reformer he insists that real impiety is a man's crime.⁸⁷

Now the impious deny propositions we are used to seeing in dialectic.- Protagoras' followers⁸⁸ for example are credited with something very like 889 e: "as for right, there is absolutely no such thing as real and natural right, mankind are eternally disputing about rights and altering them and

84. 885 a; 909 b 2. 85. 892 ff; Schærer, R. La Question Platonicienne 1969 p.154; n 1. 86. 886 a 4. 87. 888 b ff; 910 c 6 ff.

88. Theæ 172 b 6.

every change thus made, once made, is from that moment valid ..." (Taylor). The work of dialectic is to tame (*ἡμυροῦν*)^{89a} and it is only to be used on those for whom it is suitable. It takes the form of a preface to a law. The process of conversion has two moments, both of which are familiar: the first, the nature of soul and its life, convinces of the existence of gods, the second, the nature of goodness, convinces us of their providence. Both moments arise from stock situations in dialectic: the interlocutor is often asked to reflect on soul and on goodness and from these reflexions consequences are drawn for the purpose in hand; e.g. was Pericles a real statesman⁸⁹. The dialectical propositions like "there is no such thing as justice" is made to cover an extensive social category.

The law when codified makes a distinction as we have seen between "atheists" requiring correction and "atheists" requiring removal by death. "Atheist" includes kings, prophets and generals who have in common with charlatans their reaction to dialectic; and their additional qualification for inclusion on the dangerous list is the "possession of a vigorous memory and a keen intelligence" (908 c) - the very qualities needed for a good dialectician; yet because of their basic levity - their refusal to be bound by their own agreements and face up to the aporia - dialectic does not work in their case. Noone in the Platonic corpus says in dialectic that there is no such thing as soul or god, and how rife such beliefs were is difficult to assess⁹⁰ but it is unlikely that such vigorous assertions of atheism as Plato requires would have been common in the group to which he attributes them. He is drawing what seem to him to be the conclusions of their beliefs about tenuously related matters. A rider to this is the restricted scope of Plato's dialectic - it seems to apply to those who will admit the good. Even in those passages in which Plato argues against

89. See Detel, W. Arch. für Gesch. der Phil 1973 p.2-29 p.16 Detel points out the logical rôle of the 'good' ubiquitous in the dialogues.

90. e.g. Guthrie III A p.236 f.

^{89a} Laws 890 c8.

"materialists", the argument is not properly directed against materialism, but an attempt is made to "shame" materialists into acceptance of an "unseen" thing. Only a few will make the admission and the range of the ensuing argument is restricted to these.

The instructors faced with youthful atheism are not to lose their tempers. They are to treat the disease *ἡρώως, σβέοντες τὸν θυμὸν*. The tradition of this sort of behaviour towards the errant pupil goes back a long way in Plato. In the Republic he asks for a special treatment of anger in an elenchus. The anger in this instance is justified, because any man who is mistaken is at least thinking something. Socrates phrases his request as follows:

*Ἐξομῶν τι παραμυθεῖσθαι αὐτὸν καὶ
πείθεσθαι ἢ ῥέμα, ἐπικρυπτόμενοι ὅτι οὐχ ὀργίζεσθαι* 91

Concealment can be put to hostile or as here to pedagogic purposes. Plato produces a philosophical balm: a man's mistakes lie in the realm of doxa. The irony of teacher to pupil remains throughout Plato's work. Much of his later work is devoted to removing causes of anger against philosophy herself. It is one of his complaints that eristic produces anger because it is so exasperatingly untrue.⁹² Some anger is justified, for example, of the man faced with obvious untruth. Teachers do not rouse their pupils' ire unnecessarily. But the man who charges Socrates with irony, and chafes angrily under Socrates' tuition is incorrigible. Plato's analysis of dialectic includes therefore the analysis and categorising of characters:

*Ἐπειδὴ λόγου δύναμις πᾶσι καὶ ψυχῶν γὰρ οὐδὲ
τὸν μέλλοντα ῥητορικὸν ἔσεσθαι, ἀνάγκη εἰδέναι,
ψυχῇ οὐδὲ εἶδῃ ἔχει* (93)

The remark applies to Plato's view of dialectic; and what the dialectician discovers in his analysis is truth common to dialectic and to society. Aristotle's emphasis on the similarity of dialectic to rhetoric was not a bolt from the blue.

91. Rp. 476 e.

92. See within: Enthydemus passim.

93. Phdrus 271 c 10 ff.

47

III

The modern philosophical habit of taking examples from the lecture-room, as in the question: is this an inkwell that I see before me? has its origins (if not its present-day function) in the Platonic conversations, where it is a cunning extension of Socrates' habit of making matters personal. Grand theories or propositions are always referred to Socrates and his interlocutor: their salvation is at stake, and they can only understand a theory as what it means for them. Hidden in this arrogation of theories to present circumstances is the appeal to commonsense - to what one really believes about the situation one finds oneself in. There is an element in Socrates of Dr. Johnson banging the table and kicking a stone to prove its existence.

We take three examples. As a matter of philosophy our first example⁹³ is described by Taylor⁹⁴ as follows: " ... he made the fatal mistake of confusing a cause, or *causa principalis*, with 'that without which the cause would not act as a cause', *causae comitantes* or accessory conditions". But the "demonstration" of the distinction rests on the ludicrousness of supposing that Socrates is in gaol at Athens because his foot bone had not moved his leg bone, and his sinews had given up. The 'demonstration' is a *tekmerion*, drawn from the personalities present and the unexamined common assumptions about them. Our second example⁹⁵ is described by the Encyclopaedia of Philosophy as the first statement of the Correspondence Theory of truth.⁹⁶ But the passage simply says: "Theætetus sits" is a statement about you, Theætetus, who know you are sitting here with me. The instant translation of Protagoras' famous first sentence may be of the same sort - "anthropos? that means you, Theætetus, and me, Socrates"⁹⁷. Socrates is generally embarrassed by the introduction of extraneous knowledge, even though he is quite well aware that dialectic somehow depends on it. His

93. Phædo 99 b. 94. Man and his Work p.200. 95. Soph. 263 a.

96. Vol.II 224 (A.N.Prior). 97. Theæt 152 a 6 ff; cf. 16 b 5, which is slightly different.

point must be that what a man believes about himself and his neighbours in daily life - if a man begins his thinking from that point, he is

σπουδαίος ; but if he begins from some *arcane* technical proposition which is much less part of his life, then he is *καταφρονητικός*.

The picture of dialectic emerging is not that of the dialectical tournament; but that of a non-repeatable experiment or a house party. Perhaps they have met to play a game, like dialectic, but the purpose and success of the party, or even of the game, depends on temperament, amenity, who the people are; and it is a party that can never be repeated, though the houseparty can be reconstructed with increasing precision as more elements in the dialectical situation are realised to be elements that contributed to the ^{success}~~outcome~~ of the game on that occasion.

CHAPTER II. DIALECTIC AND THE SCIENCES

(i)

The examination of moral character is not enough.

The date of the Gorgias is unlikely to be far removed from the composition of the Meno, in which Plato begins to study method disembodied¹. The dialogue claims rather more conclusiveness for its arguments than the early work, though as we shall see this may be an illusion. Thus two considerations make it likely that 'Gorgias' will yield valid examples of an emerging method that does not simply depend on moral confrontation - not of course that Socratic method ever did depend simply on moral confrontation: we have treated character-analysis first for reasons of convenience, and because the psychology becomes more impersonal - more doctrinal - in the later dialogues. The two considerations are:

(1) Plato is beginning to write positively: he adds to his store of beliefs²; and claims an unusual degree of certainty for his deductions³. Vlastos claims that this claim is to certainty of deduction only, not certainty of premiss⁴. Dodds doubts this⁵: Shorey⁶ points out that *ἀσφαλείως* (509) is a pun - Plato presumably means no more by "bound by iron and adamant arguments" than "protected by warlike and unconquered arguments". Vlastos, who takes the view that this refers to correctness of deduction, explains that Socrates does not claim to know the premisses, and claims in consequence that Socrates here grasps the essential feature of his argument, namely that it cannot lead to

1. Dodds p.23; ct. Taylor II 103.

2. Dodds p.20; Taylor 129 op.cit.

3. Gorgias 509.

4. Vlastos xxxi.

5. Dodds p.16 n.2.

6. Cl.Phil.1886p. 413 n4

demonstrative certainty. This distinction between valid and true argument seems to be anachronistic, especially as the premisses are ethical propositions Socrates values. Nevertheless, Socrates says that he does not know. My own suggestion is, he does not know why it is that the outcome of the argument is as it is, and himself once again victorious. He disclaims any understanding of his dialectical power; but does not claim that he is not convinced of his ethical propositions. Accordingly he does not claim validity for his argument so much as that the argument is the best argument under the circumstances, and that these circumstances are peculiarly propitious to the discovery of truth. He makes the same sort of claim in 'Phaedo'.⁷

(2) The second claim of the Gorgias to our attention is that Plato seems here to emphasise the insufficiency of a mere moral or dramatic interpretation of dialectic. Callicles asserts that it is shame⁸ (false shame) that makes Polus and Gorgias admit Socrates' victory over them. Now this shame must be carefully distinguished from the true shame through which dialectic works. For the first shame is shame felt before others only, and the second shame is the shame of words dissonant with action or words dissonant with words⁹. Callicles appears to be devoid of the latter sort of shame¹⁰ and a victim of the first sort¹¹. He claims of course to be free of the enervating shame, which blushes at immorality and disowns logical consequences that properly belong to it. Because of this shameful situation Callicles is an excellent partner for Socrates. When Socrates says¹² that a victory over Callicles is almost a proof of Socrates' opinions, he does not attribute this state of affairs to Callicles' cleverness¹³ but to Callicles' shamelessness, which he counsels him not to abandon¹⁴. The outcome is the (indirectly stated) conclusion that if shame claimed the unfortunate Polus and Gorgias, then shame has also claimed a victim in Callicles. As that is impossible ex hypothesi, it is truth, not a pathos which has convicted them all.¹⁵

7. Phdo 107 B 6-8.

8. 482 d.

9. e.g. Gorg. 482 c 7; Laches 185 a; 188 c 3 ff; 193 e; Phdo 91 a 4 ff; Ptgs 339 c 8. 10. 488d 4; 489 e 9; 495 a 5-6; 497 a 6; 499 b 7-8.

11. e.g. 505 c; 510. 12. 486 d ff; 489; 500 b 6 f.

13. 487 c; 508 a 5. 14. 489. 15. 508 c.

The clue to the situation is to be found in our interpretation of Phaedo 101 c e: Callicles is the perfect foil because he refuses to abandon his opposition. It is a virtue symmetrical to Socrates' dialectical doggedness. By his refusal he forces Socrates to deepen his proof Callicles is no boy to be put off with blushes, or frightened by demons. The charge of bogey-waving and oration-mongering made by Socrates against Polus is turned by Callicles against Socrates himself.¹⁶ What makes Callicles a good foil is that he cannot be frightened off with preliminary ready-made arguments¹⁷; and because of his lack of shame any argument that would convince him would succeed for its properties as an argument, of course Callicles is not convinced. Yet some sort of wide ranging victory is claimed; and this must be in virtue of the strength of the method of argument used. They come to grips at a deeper and at the same time more formal level than in previous contestants did although the arguments are similar and actually join.¹⁸ But the point in which Callicles differs from Polus is the degree to which he is prepared to let the apparent consistency of wilder and wilder consequences over-rule his - shall we say his heart.¹⁹ The attempt to embarrass Callicles out of his position ends with Callicles' statement of belief that we are the happier for giving in to our itches. From that point on the argument takes a formal turn.

There follow two arguments, the first of which Taylor²⁰ characterises as follows: "(a) Good and bad are "contraries", you cannot predicate both at once of the same subject, nor can you deny both at once ... Pleasure and pain are not opposed in this way." Robinson takes a similar line; for him, the deduction is made "from the premisses, first that good and evil are

16. 473 d 3; e3; 482 c 4-5; 494 d.

17. cf. Cap. I ii.

18. 500 a 7.

19. 480 e; 495 b 9; 481 b 7; 491 a; e.

20. Taylor II, p. 121.

contradictories, second that contradictories cannot belong to a thing at once, and third, that pain and pleasure can belong to a thing at once."²¹ Dodds protests but seems to underestimate the possibility of linkage between our passage and the later passages characterising contraries and contradictories in Plato.²² This sort of problem was occupying Plato's mind whether or not he had yet worked out the categories. The second argument (497 d 8 - 479 b 3) takes further Callicles' distinction between the 'good' man and the 'bad' man, the argument merges into the long argument of Socrates with himself at 506 c 9f. For Callicles admits that there are good and bad pleasures. Socrates siezes on this distinction and leads his opponent to admit that the criterion between good and bad pleasure lies in the purpose²³ of the action, which in the case of a good pleasure is good. Here the argument rejoins with discussion with Polus, since Callicles has in effect admitted that good may be the object of τέχνη which requires an expert²⁴. In other words the argument has taken a circuitous route to the same end as the previous one (Polus'). It is a μακρότερος ὁδός²⁵ - the journey through formal, apparently distant arguments which must be undertaken by the accurate dialectician. We see in it the sort of dialectical détour that Goldsmith makes a mark of the "constructive" dialogues.²⁶ What has forced Socrates into this longer journey is Callicles' shamelessness. Reversing the situation, we may picture Socrates forcing his thought deeper and deeper by accepting the strange consequences of his deepest beliefs, refusing to abandon them when they are disproved, and working out the sort of contradiction that would be an acceptable defeat for him, - but impossible, he hoped, for his beliefs.

No one can hold to a contradiction. But the sort of purely verbal contradiction that Socrates calls a bogey must not be confused with a genuine

21. Robinson p.40.

22. Dodds 310; Phdo 94 d; 100 af; Rp.583 c 3; 436 ff.

23. 500 a 2.

24. 500 a 6.

25. 465 e; 519 d; Rp. 484 a; 504 B; 435 D.

26. Goldsmith I. p.156-7 ff, adding Symp. 210 a 1-4; Phil 23 b 5-7; Soph 242 b 6.

contradiction. It is as much in the interest of his defence as of his attack to work out such a theory. Inadvertent blindness to outlandish consequences must not be allowed to ~~it~~ ^{trick} Socrates into accepting or abandoning a position: he surrenders only to a genuine elenchus. The first argument against ~~Plus~~ contains the germs of this examination.²⁷

What does it mean to say that pleasure is the same as good and that virtue is different from knowledge. Well, good is the 'opposite' of bad, but pleasure is not really the 'opposite' of pain because the two are found together. The point is formed again at 60 a Phaedo when Socrates comments that pleasure and pain are "fastened to a single head". Goodness and badness of course differ to to caelo; and never occur together ($\epsilon\nu \mu\acute{\epsilon}\rho\epsilon\iota$ $\kappa\epsilon\iota\tau\acute{\alpha}\iota \tau\acute{o}\nu\delta\epsilon \mu\epsilon\tau\alpha$). The sort of mistakes Callicles makes about goodness can be shown to be wrong by the "logic of the concept" (i.e. because the one pair are contradictions and the other pair is not). Another favourite trick of Plato's is to point out the relevance of the good to all actions: all actions are undertaken for some one's good somewhere, real or fancied; and it is a mark of a $\tau\epsilon\lambda\epsilon\upsilon\eta$ that ~~its~~ good is objective.

The significance of the "longer road" is that matters are dealt with more adequately. A position is defended over a range that is impossible given the usual short verbal dialectic. It brings out into the open the real grounds of assertion. This does not mean that argument is deductive and axiomatised; but that Plato is beginning to appreciate the importance of formal, categorical characteristics which provide arguments powerful enough to affect whole classes of propositions - I refer to statements of identity and difference, statements of contrariness and contradiction. They are the ~~usual~~ ^{usual} concepts with which to begin an elenchus; yet the correct interpretation of these questions requires doctrine about the various possible meanings appropriate in various circumstances. Plato is sensitive to the eristic possibilities of the areas and devoted a great deal of attention to neutralising them.

27. 496 c 1-4.

To Callicles' annoyance, Socrates goes on drawing conclusions, but does so on his own.²⁸ The intention is to finish the argument. Callicles has withdrawn his support, and Socrates is obliged to go on with the argument alone. But he will only do so subject to surveillance by the other two, who may be provoked by a Socratic lapse into disproving Socrates' case. He accepts that he must go through the argument speaking his mind (ὡς ἂν μοι δοκῇ εἶναι). But Socrates makes it clear that he is subject to the same rules in answering himself, as those to which he subjects others, for he can be convicted of contradiction at any point. His excuse for this departure from the normal is that the logos must be finished (διαπαραβῆναι). Quite what is meant by this is not clear. For Socrates' next step is ^{not} to draw a conclusion, but to reconnect the argument from the beginning. Socrates does not finish the argument alone in order to save the possibly historical fact that Callicles was never converted; for Callicles' gives the assent necessary later.²⁹ The parallels do not help because they give us a Socrates who proceeds to draw conclusions only.³⁰ But in The Gorgias, the emphasis surely falls on the recapitulation, which is shown to be an essential part of the dialectical process.³¹ The necessary admissions have been made: a demonstration of how the admissions interrelate does not require the attendance of an interlocutor. In this passage we are treated to Socrates leading out his own thoughts. He is restricted to some extent by the admissions made earlier in the argument, but the order of the admissions is new, as if he were putting his argument into a sort of standard form. Nowhere else before the Gorgias does it seem likely that Socrates reveals his own side of the battle. Here he takes the positive side of a discussion with an imaginary interlocutor: in the

28. 506.

29. 510.

30. Ptgs. 360 d 9; Rp. 350 e 6

31. Phil. 60a; L. 100; Meno 85 c; Phdo 105 b.

other examples of this technique Socrates introduces only an imaginary eristic.³² As we shall see, one of the apparent innovations of the *Phaedo* is precisely this: it recommends "considering with oneself" before taking the answerer's part - in an effort to avoid premature elenchus, by making quite sure what one means by one's answer. In the *Gorgias* we are given something of the same sort, and it is interesting to see that Socrates' arguments with himself are not ad hoc, but show considerable similarities between one 'positive' argument and another. In his recapitulation, he entangles as much as possible of the preceding discussion in an uninterrupted chain with which he pulls the discussion tight. At end of it he claims that his position is defended by iron and adamantine logoi.

Part of his confidence must come from having defeated the eminently suitable Callicles. Part must come from the safety of his own miniscule ironwork. But he does not give us a paradigm of deductive inference. Each of his steps can be paralleled in the work, rather than summarised from it. The first steps are recognisable as agreements reached earlier within the confines of a fairly regular continuous argument. The later steps seem to be related to the entire *Gorgias*. But it is difficult to say how the steps are related to each other. Each step has peculiarities which can be explained only by reference to peculiarities of meaning. Thus when it is declared that a sophron does what he ought, "what he ought" is itemised into good behaviour towards God and man and this behaviour includes bravery. Bravery is a matter of ~~and~~ bearing the appropriate dangers - ~~he~~ ^{he} abides ~~his~~ ^{his} own punishment. But the step depends on a doctrine about sophrosyne, that a sophron does the appropriate thing - whether this doctrine is Socratic, Platonic or simply conventional. There is no clear principle necessitating the next step. Similarly in (iv) and (v) below he moves from a statement about virtue to a statement about the good soul. The most "logical" principle in this chain is the inference of the opposite - to say it as

32. Ptgs. 354 Hipp.Maj. 286 c 9.

Untechnically as possible. If a good soul is white, then a bad soul is black. We show the chain, rather vaguely, below:

- 506 c 6. (i) τὸ ἡδὺ καὶ τὸ ἀγαθὸν οὐ ταῦτόν (499 b
(Polus cf. 474 c 5.
- 506 c 9. (ii) τὸ ἡδὺ ἐνεκα τοῦ ἀγαθοῦ. 500 a 2/3.
- 506 c 9 (iii) παρουσία and ἀρετή makes for goodness (497 e.
-d 2 ct. παρουσία and ἡδὺ (Polus cf. 476 cf.
- ∴ virtue
- 506 d 7/8 (iv) ἀρετή implies order and an art (500 e - 1 c; 506 e
(by ii, i?) Polus 464 b f
- (individualising)
- 507 a 1/2 (v) ἡ ἀρετὴ σώφρων ψυχὴ ἀγαθὴ (iii, ii, i) 506 e 12
(τοῦναντίον) 491 d
ἡ ἀφρων τε καὶ ἀκόλαστος κακὴ (505 b 9.
(cf. Polus 479 f.
- 507 a 8. (vi) ὁ γε, σώφρων τὰ προσήκοντα πράττει
itemised according to traditional spheres.
δίκαια 491 d
δύσα L.S.J.1.
ἀνδρεία 491 c 6; 497 e 3-5.
∴ he stays his punishment 505 c 3-5
- 507 c 3 (vii) ὁ ἀγαθὸς — τὸ εὖ πράττειν commonplace
τὸ εὖ πράττειν — τὸ εὐδαίμονα εἶναι
ὁ ἀκόλαστος — τὸ ἀδύνατον εἶναι (τοῦναντίον)
e.g. 479 e; 505 b.
- (viii) 507 c 9 - 508 a 9
declaration of moral belief; exhortation.
- (ix) limits of my proof (a) positive implications:
the discussion I had with Polus and Gorgias remains
valid esp. in training in orator punishing a frier
(b) negative implications: there is so much about
the argument I do not know.

"For my position has always been that I am ignorant of how these things are, but that I have never met anyone who could say otherwise, no more than you can, and not appear ridiculous".³³ Dodds (ad hoc) says: "It is as if Plato had belatedly remembered to make his hero speak in character." For having claimed much for the validity of the conclusion, he takes it back again; and repeats his stand at the trial.³⁴ Jowitt and Hamilton translate as though *οδκ οἶδ' ὅπως ἔχει* refers to Socratic ignorance of propositions like "It is better to suffer an injury than to injure". But rather more seems to be involved; for Socrates must always say the ~~something~~ both that he does not know how such things are, and that no one who says otherwise does not become a laughing stock. Now this boost could be independent of the propositions - Socrates can prove or disprove anything. In that case his victory has proved nothing. But his victory has proved something, if he is only victorious so long as he says the same thing - namely that it is better to suffer punishment than inflict injury unjustly. On my version, Socrates claims not to know why he is victorious - simply that these propositions always are: "I don't know why the argument keeps on turning out the same every time" is a related and frequent complaint in the dialogues.³⁵ The correct comparison is with Socrates' incredulity at the outcome of arguments and ^{his} lamentations that he has such a gift for making things turn out wrong. He claims that no other opinion will cohere, so he is obliged to posit the truth of the side he takes. All Socrates' beliefs seem to cohere, and cohere so much that he cannot get away from them. Why he cannot he does not know - and here we suspect an ironic concealment. Socrates' arguments are the outcome of dialectical skill - the *τέχνη τῶν λόγων* - and a system of ethical beliefs. In so far as we have any guide to his secret this "recapitulation" of the Gorgias must be it.

The Gorgias seems to have little connection with the "hypothetico-deductive" method; and a great deal to do with the technique of "thinking

33. 509 a 4 Jowitt.

34. 21 b.

35. e.g. Euthyp. 15 b; 11 b c; Prgs. 361 a; *Ion* 541e 5 f; Ch. 175 b.

to oneself" which begins after an elenchus.³⁶ Socrates is not sure of his deductions, but open to conversion at each point. If any one can show him how to get away from one of his beliefs, then he would be free to change his mind. Yet the difference between the *Phaedo* and *Gorgias* seems to lie mainly in the use of the word "hypothesis". The hypothesis, as we shall see, is that in virtue of which a subsequent theorem is believed, so that some propositions are more important than others. As we all know the strength of the chain lies in the adequacy of the premisses and in our case especially (i) - (iii). These are the 'elements' of the chain Plato spends a lifetime exploring. Somehow this sort of chain must withstand the pattern preliminary shock - genuine elucidation - elenchus. It is worth observing that to get a proper answer, you cannot ask for an opinion haphazardly. For behind the answer will lie the reasons why the answerer holds it. So a gap is emerging between the opinion, or ostensible answer, and the framework of the discussion, which holds the answer in its place and gives it sense. This is brought out dramatically at 463 e³⁷, where Polus is reprimanded for not seeking out the framework behind the answer - which is by and large, our steps (ii) and (iii). But ^{as} Socrates (or even Callicles) holds extensive and fairly coherent views in the wings which are very difficult to roll on the narrow dialectical stage, where there seems to be room only for a few key destructive words, it is necessary to tie one logos to the next until one produces the "scene" of the real disagreements. The *Gorgias* chain reminds us that behind the reversals of dialectic in the *Cratylus* or the *Laches* or the *Euthyphro* there must be a guiding moral presence, which is Socrates. It is Socrates behind the arguments how holds them all together. He imposes on each argument the additional requirement of philosophy - which for him means a massive harmony of words, deeds and

36. *Infra*; and *Ap.* 22 e 1.

37. See *Cap.* IV.

attitudes, and it is philosophy which purifies the argument of eristicism.

The definitions of justice, courage and the rest successively eliminated in a dialogue are connected with each other by more than chance. But attempts to trace the line of this connection will be subjective. All such attempts however have in common that they assume movement towards greater precision, greater scientific validity. These requirements are not formal only, but follow the bases of the "ordinary" conception. Dieterle³⁸ using apparatus provided by Goldsmith³⁹ so analyses the movement of definition in the Laches. The definition starts at the level of the interlocutor. Thus the first definition of bravery fits hoplite bravery: bravery is to stay and fight, cowardice is to flee and not fight. Socrates points out that the Spartans would not stay their ground at Plataea, but were still brave (εὖκ ἐβλήεν μένοντας ἑπὶ αὐτοὺς μάχεσθαι). Dieterle claims that Socrates wants to point the rôle of the will in bravery⁴⁰; and therefore to correspond to his elenchus he elicits by carefully chosen examples the definition: bravery is καρτερία τῆς ἐν ψυχῇ ἢ φρόνιμος καρτερία⁴¹. ; and from this definition he leads on to progressive and constructive. Another version of the "unity of the Laches" finds "there is a harmony between the incomplete definitions they offer and their own characters. The unity of the Laches rests in this"⁴². Yet another approach to an elenchic dialogue is to solve it, as Taylor⁴³ solves the Euthyphro. The point is that dialogues that ostensibly end in aporia give the impression nevertheless of constructive line of thought behind them. It is difficult to imagine Socrates argue that it is right to escape punishment - in the Gorgias, the subject-matter limits his Protean freedom; and enables us to see the thought behind the scenes. Yet of course Plato does not claim that the thought behind the scenes is definitive, incorrigible or even exactly what he means.

38. Diss.Freiburg 1966. p.56 ff.

39. Les Dialogues de Platon 1947.

40. p.65.

41. Laches 191 a; 191 c; 192 b 9; 192 d 10.

42. O'Brien, M.J.Unity of the Laches, Yale Class.Stud.XVIII 1963 p.147.

43. II p.154.

he means. At this juncture enters the "method of hypothesis". It is from the beginning associated with the defence of arguments rather than their destruction.

II. Hypothesis in the Meno

We shall claim that hypothesis is a method used by the dialectical answerer, rather than by the dialectical questioner. It is used to make dialectic comparable to other sciences, which also have their hypotheses, but the dialectical hypotheses are peculiar, not so much ⁱⁿ their content, as in the method one must use on them. This method is essentially dialectical; and its borrowings from other sciences cannot be properly determined, though it had quite as much influence on other sciences as other sciences could have had on it. We shall deal with the relevant dialogues in the order in which they were written. However they ^{discussions} are of different types. The discussions of hypothesis in the Meno and Republic seems to be protreptics ~~for~~ the study of dialectic, as opposed to the study of other disciplines; while the Phaedo is a protreptic ^{to} virtue, in which dialectic is used to settle philosophical and ethical ~~and~~ cosmological questions in flagrant independence of other sciences. To help our examination of the Meno we shall examine first what philology can tell us about the method of hypothesis, then what the history of mathematics can tell us, and finally what the nature of dialectic itself can tell us. In so doing we shall face the arguments of those who treat dialectical methods as though they were logical methods.

- A The order Meno - Phaedo - Republic is fixed by internal references and general considerations.⁴⁴ It is in these three works that the Platonic "method of hypothesis" is most advertised and discussed. In the Meno, hypothesis is a method of dealing with unknowns; in the Republic hypothesis is defined by relation to the ἀρχή without which is not anything known which is known. The word and its cognates are frequent in the dialogues of all periods; but the word is by no means always accompanied by the method.

44. Phdo 72 e; Meno 81 a; 97 a; Rp. 506 c; 534 b; Stenzel-Allan pp. 6ff; 15 ff.

Even in the early dialogues the verb marks a statement off from its neighbours as a genuine unit of the argument. These statements are 'put forward' and should 'stand' though they have a disconcerting habit of reversing themselves. Robinson gives examples of its use in Rp.I.⁴⁵ He shows subsequently that such statements can be posited (*προτίθεμαι*), abandoned (*ἀνατίθεμαι*) changed (*μετατίθεμαι*) or hypothesised i.e. posited as a preliminary (*ὑποτίθεμαι*)⁴⁶. 'Hypothesis' in its use as "something proposed" has been carried back as far as Homer⁴⁷, but the noun is first used to our knowledge in the Vetus Medicina, which is generally placed in the 440-20 period⁴⁸. Festugière (p.26) goes so far as to say it is Ionic for "se proposer à soi-même ~~une~~ base pour la recherche" and says that it appears in the V.M. with "toute sa valeur prégnante." Lloyd says he can find no clear instance of the verb meaning "assume" before Plato other than in the V.M. itself " (p.112 n.1.) Heijboer says that hypothesis in mathematics is "an important Athenian novelty of the Peloponnesian War." ⁴⁹ We may doubt that it originated in Athens. Festugière is in favour of a Ionian origin; Lloyd suggests the originator is Philolaus.⁵⁰ He says that the V.M. "indicates that already in the period before Plato (in all probability) medical theorists were familiar with the concept of a postulate i.e. something which has itself not been proved, but which is assumed as a basis for theories and explanations and had discussed the legitimacy of making use of such assumptions in different fields of inquiry. It is interesting that V.M. is still using the word *φιλοσοφία* in the sense of natural philosophy. (51, 10). That the hypothesis had mathematical uses is usually taken as guaranteed by DK 87B13 and Rp.510c.⁵¹ Its medico-mathematical use is further shown by Arist.EN.1151 a 16f. If the originator is Philolaos, then this collocation of uses is no mystery. The evidence, then, makes of it

45. Robinson I. p.93.

46. 94-5; Classen p.72-8; Taylor C.C.W. I 1967 p.195; Festugière n.1; p.26.

47. Festugière gives Od.IV 163; Il. XXI 293.

48. Festugière, Longrigg 1963. Lloyd G.E.R 1963.

49. Mnemosyne 1955 p.106 n.2.

50. Lloyd G.E.R. 1963 p.120.

51. For value of evidence: Einarson 1936 p.33 and Robinson I 152.

a method that was dominant in the decades when Socrates (according to the Clouds) was interested in natural science.

Xenophon (Mem IV vi.B) says that Socrates used to lead every question back to the hypothesis (ἐπὶ ἀνέγκειν). In context, this seems to mean little more than that Socrates corrected particular misjudgements (that x is a "good man") by reference to general statements about good and bad men. The passage contains genuine Socratic echoes, but grossened to an almost Johnsonian degree. It also contains the phrase:

μηδὲν ἔχων σαφὲς λέγειν ἄλλ' ἄνευ ἀποδείξεως

Gulley⁵² finds this passage is some confirmation "that Socrates' use of a method of hypothesis in Plato's early dialogues is not simply a piece of Platonic sophistication;" he adds that the basic pattern of the method can be seen "in exchanges such as those between Euthydemus and Socrates at Mem.IV.ii". The passage has many Platonic reminiscences, some of which could be mistaken for philosophical method⁵³. But even supposing that the other passage (IV vi) is an unadulterated Xenophantic mpassage, the argument for the genuineness of "hypothesis" for Socrates really depends simply on the fact that it was a slogan of the period. But the use ^{by} Xenophon of what was a slogan word as much in his day as in Socrates' surely proves nothing about Socrates' version of the hypothetical method. It certainly does not prove a distinctive hypothetical method - which is what Plato's method can claim to be. Little weight can be put on a "hypothetical" method for Socrates. The method comes into prominence as the Socratic element in the dialogues begins to diminish.

But even if Socrates like everyone else did use the hypothesis notion, the middle dialogue use of it would be discontinuous, if only because Plato waited until then to emphasise it.

52. 5.p. 51 n 51; 52.

53. e.g. ii.2 κινεῖν — Lysis 233; ii 40 διετράπτειν — Phdo 100 d;
ii. 10 διεισώγειν ; 16 διορίσασθαι ; 18 μηδέποτε τὰ αὐτὰ
περὶ τῶν αὐτῶν Gorgias 491 b.
ii. 19 εἰ μὴ μὴ δὲν ἀποδείξωμαι

We examine the vocabulary associated with the 'Hypothesis-lehre' in the medical corpus. It falls into four main groups.

V.M.Cap I

(a) ἐς βραχὺ ἔχοντες τὴν ἀρχὴν τῆς αἰτίας πᾶσι ἀνθρώποις νοούσων τε καὶ θανάτου καὶ πᾶσι τὴν αὐτὴν, ἐν ᾗ δύο ὑποθέμενοι

(cf De Flatibus Cap.I; 13; 15.)

Festugière (ad hoc) assumes that ἐς βραχὺ ἔχειν is one of the boasts of the Hypothesis-lehre in fact "ce principe vraiment scientifique qu'il vaut mieux un petit nombre de causes que beaucoup, une seule qu'un petit nombre ..." It could of course be merely a charge of skimping; but in view of the de Flatibus parallel we shall suppose Festugière right in supposing that synoptic brevities already an intellectual virtue in Greece - that is, before it becomes a prerequisite of the Socratic method, its insufficiencies were being pointed out.

(b) διὸ οὐκ αὐτὴν ἔγωγε κενῆς [vel καινῆς] ὑποθέσεως δεῖσθαι ὥστερ τὰ ἀφανέα τε καὶ ἀπαρεόρμητα περὶ ὧν ἀνάγκη ἦν τις ἐπιχειρῆν τι λέγειν ὑποθέσει χρῆσθαι (cf XX)

The contrast is between methods of procedure in matters known and matters unknown. τὰ ἀφανέα covers the future, astronomy, and such subjects. The mystery is not that the use of hypothesis is restricted to obscure matters; for it was a wellknown principle that obscure matters had to be dealt with in a special way.⁵⁴

Now as a host of instances show,⁵⁵ the usual thing to say about τὰ ἀφανέα is that one has to get at them through τεκμήρια. The shock in our passage is that τεκμήρια are replaced by ὑποθέσεις; which are by no means proofs or signs, but plain fundamental explanations.

54. Diller, H. *Ὀψις ἀδελφῶν* Hermes 1932 p.14-42; Gomperz. H. Hermes 1933; later history: Schuhl, P-M La Fabulation Platonicienne 1968 p.126-3.

55. Taking Euripides only f. 574; 811; Rh. 705; Alc. 240. De Reg I 11, 12 See Schuhl, cit. ^{Alc.}

As Taylor⁵⁶ says: "A hypothesis is what a pre-Socratic writer is most sure of." Nor is there any evidence that Socrates' interlocutors put forward their hypotheses tentatively, for correction. The V.M.'s point is that the subject matter of medicine is not ἀφανές, because how we fare physically is known to every layman⁵⁷; and because there is already an art of medicine in existence - *coeval* with the art of eating.⁵⁸ The V.M. does not question that procedure by hypothesis is the correct procedure in matters unknown. The objection seems to be that hypothesis is inappropriate because medicine is manifest, i.e. a matter of sensations, and must be studied directly in the sensation, without the mediation of a theoretical statement no matter how true it may be. What is wrong with the hypotheses he polemicises^{against} is not that they are tentative, but that they are wrong: where is the hot and cold, for example, that is not something else as well?⁵⁹ V.M. is not above producing a single 'hypothesis' of its own (VI fin. cf IX), but it is not a hypothesis that envisages the existence of any thing that is not immediately obvious - or, in jargon, 'ostensive.'

(c) οὐ γὰρ ἔστι πρὸς ὃ π χρὴ ἀνεγέγκαντα εἶδέναι τὸ σφές.

V.M. tells us that astronomers do not know if they are telling the truth or not because "there is nothing by reference to which one must know the truth." (ct. Jong: "For there is no test, the application of which would give certainty"). Medicine is in the anomalous position of being an art readily intelligible or confirmable by laymen, because of its subject matter, which immediately tells you what is true and what is not true if only you have experienced it yourself or watched others experience it. The 'art' is an inherited memory, a short cut, if you like, which saves you from finding out the properties of hellebore the hardway. Furthermore this is the only sort of knowledge possible and anyone wishing to know the nature of man must approach his goal via medicine

56. Taylor p.438.

57. II 14 Loeb.

58. e.g. III, V.

59. XIII; XX.

because medicine is more given than the other areas of investigation⁶⁰.

I think, in fact, the emphasis is on the anomalous position of medicine, rather than on the tentativeness of hypothesis.

(d) μάλλον δὲ ἄξιον μεμνησθαι ὅτι ἀμφὶ τέχνης ἐοόσης
ἢ χρέονται τοὶ πάντες ἐπὶ τοῖς μεγέθοις καὶ τιμῇσι
μάλιστα τοὺς ἀγαθοὺς χειροτέχνους καὶ δημιουργούς..

Hypothesis is a theoretical method, employed by intellectual empire-builders like Empedocles. It claims to simplify complex questions, it is neither traditional nor practical. But the art of medicine already exists, and if there are any dissonances between hypothetical and traditional medicine, then the fault lies with the former.

Diller was so impressed by the apparent similarities between the opening chapters of V.M. and Plato that he thought that the V.M. is a reply to Platonic complaints about emper~~x~~iria. His suggestion has not met with acceptance. Kühn⁶¹ has pointed out that the language of V.M. (e.g. above

τέχνης ἐοόσης) pre-supposes an Eleatic rather than an Academic adversary. However the similarities of vocabulary remain. We may add for instance that the use of ἀναφέρειν above does not seem to be found in Isocrates or Xenophon. Yet together with ἐπὶ ἀναφέρειν it occurs in Plato in the context of the theory of forms, and in contexts in which a standard is required.⁶² The language of hypothesis passed to rhetoric too. But I have not been able to find an Isocratean or Lysian passage in which this vocabulary is methodologically significant. Most of the vocabulary seems to be completely absorbed into normal oratorical method. Kühn⁶³ finds that Isocrates does carry over in his use of hypothesis and

60. Cap.XX.

61. Kühn 1956 Hermes Einzelschriften Heft 11, esp. pp.47 ff; cf Lloyd GER. Phronesis 1963 108-21; Longrigg, J. Medicine & Philosophy Harv.Stud. Class.Phil. 1963, 147-75 e.g. 157 ff.

62. e.g. Phdo 76 D; Lys 219 c; Gorg. 487 e; Cratylus 425 D; see later chapter on Memory; Lloyd I, p.125; Cohen 1969 130 f; Herod. II 23.

63. p.47.

the relation $\sigma\lambda\alpha/\epsilon\kappa\alpha\sigma\tau\alpha$ (Antid 76; Areop.28; Nicocl.9 etc.). We can add the Platonic parallel Laws 631a, where the context is also rhetorical. Words like $\alpha\rho\chi\eta\ \&\ \epsilon\delta\delta\omicron\varsigma$ are freely used in developed senses by V.M., Plato and Isocrates. What is *emerging* from this discussion is that though hypothesis may have had a distinguished history behind it in natural science, with which Socrates may have been acquainted, the associated vocabulary has been absorbed into the dialogues at a level lower than the level of the "method of dialectic" described in the middle dialogues. That at any rate is billed as something special, and my hunch is that Plato reformed the general use of hypothesis rather than adopted it.

Plato himself seems to have been impressed by the *etymology* of the word - a putting underneath. It is impossible that he took advantage of the form of the word to create a triumphantly new sense.⁶⁴

Philology then can tell us little about the method. The important fact to be retained is that 'hypothesis' is likely to have been a well-known term of art in "theoretical" branches of investigation; but which branch of investigation is not established.

B. Plato tells us that the hypothetical method he used in the Meno is an importation from mathematics. The Meno was written at a time when the influence over Plato of Pythagoreanism and mathematics was increasing.⁶⁵

The 'Meno' uses other terms of art from mathematics besides 'hypothesis'.

The Slave passage contains $\gamma\rho\alpha\mu\mu\eta$ (82 d 6); $\delta\iota\alpha\mu\epsilon\tau\rho\omicron\varsigma$ 85 b 4; $\mu\eta\kappa\epsilon\iota$ (ct. $\delta\epsilon\upsilon\alpha\mu\omicron\iota$) 84c⁶⁶. But Robinson looked for the influence of mathematics on the "hypothetical" treatment of "virtue is knowledge" and had difficulty hiding any such influence: "The method of analysis and the

64. Von Fritz 1938/63. p.63 Classen p.77; Thompson ES, Meno p.146; Robinson I 98 seems unsympathetic to Plato's impish use of language Phdo 101D Bluck p.93, Heijboer 1955 p.122; Burnet Euth.11c.

65. Gorg. 508 c; Schuhl 1968 29-32, etc.

66. E. de Struyker Gnomon 1963 p.146n3.

method in the Meno both include the act of hypothesising. But they have no further resemblance; they do not use the act in the same way."⁶⁷

Rejecting the method of analysis, he gives us no other mathematical method in lieu. He characterises the 'act of hypothesising' in the Meno as positing p to prove q , of which it is the equivalent⁶⁸. Bluck⁶⁹ calls the Meno method apagoge, and quotes Arist.An. Priora 69 a 20, to show that Aristotle thought of the Meno as apagoge. He then argues in a double fashion: that (87 a) makes it unlikely that hypothesis was fully a mathematical term⁷⁰; and if it was, ^{that} the term applies to apagoge. Heijboer⁷¹ agrees that the word is not fully mathematical; but takes the method to refer to giving diorismo; (determination⁶⁹) which state the limits of possibility within which the theorem applies (e.g. Eucl. El. VI, 28).

Cornford⁷² supposes that that the Meno does refer to the method of analysis, but that analysis might be intuitive: "the prior truth cannot, of course, be deduced or proved from the conclusions it must be grasped (*ἐκ τῶν ὁρίων* Rp. 511 b) by an act of analytical penetration. "Robinson⁷³ points out that in Euclid XIII 1-5 the finding of the requisite true proposition by analysis is a deductive process, and that the synthesis is simply the analysis in reverse. Gulley⁷⁴ proves by examination of Pappus on hypothesis (Thomas, Greek Mathematical Works II 596-9 Loeb. Hultsch VII 634-6) that two sorts of analysis were known in antiquity - analysis proper in which steps of the analysis are reciprocal; and intuitive analysis, in which the steps of the analysis are not reciprocal, and therefore not

67. p.121 Robinson

68. Robinson I p.117

69. Meno p.80 f.

70. p. 93.

71. 106 n.2; 122 (1955).

72. Studies in Plato's Metaphysics, Allen, R.E. p.61-97 p.68 f Mind 1933 p.43.

73. Mind 1936 464-473; Essays in Greek Philosophy 1969, pp.1-16. 'Analysis in Greek Geometry.

74. Phronesis 1958 pp.1-15.

69

convertible into a synthesis. He finds evidence in Aristotle for a theory of analysis in which analysis-steps are not convertible: at Anal.Post 78 a 11 f Aristotle says that mathematical propositions are oftener convertible than propositions of dialectic. The inference is that Aristotle allows "the practice of a form of mathematical analysis in which the implications are reciprocal, and recognise(s) that very many mathematical propositions are convertible; (the remarks) imply at the same time that some are not convertible: they do not themselves present a formulation of a method of geometrical analysis in which the analysis is deductive."⁷⁵ Analysis of this intuitive type, of course, does not lead to statements of possibility or impossibility: failure to find a solution implies nothing. But Gulley's revision of 'Cornford on Analysis' does not make the difficulties of the Meno any easier. There is still no sign of hypothesising the desired conclusion: instead the hypothesis appears to be, by consensus,⁷⁶ that "Virtue is Knowledge". But it seems that "virtue is good" is not inferred from "virtue is knowledge"; but somehow ~~intuited~~ to be in a special relation to the proposition in a fashion Gulley allows.

However, Aristotle can also be read as an account of the distinction between two methods of analysis - the mathematical and the dialectical, which have different strengths. Because mathematics abounds in definitions, the mathematical method of analysis is reciprocal, whereas the dialectical, because of its weakness in definition, cannot often enjoy reciprocal analysis. This fits in with the theory that the two methods of hypothesis - mathematical and dialectical are distinct.

Bluck takes this loosening a step further: he accepts Aristotle's version of the matter. At Anal.Prior. 69 a 20, Aristotle seems to give an example culled from the Meno: apagoge is a means of "proving" that justice is teachable, if it is clear that knowledge can be taught, but not clear whether or not justice is knowledge. Now apagoge according to Aristotle is as follows when

75. p.10-11.

76. Starting with Friedlaender Cl.Phil. 1945 p.255

in syllogistic form:

- All knowledge is teachable I
- virtue is knowledge II
- virtue is teachable III

Now I is a generally accepted proposition ($\delta\eta\lambda\omicron\nu, \phi\alpha\nu\epsilon\rho\omicron\nu$ 20; 25) assumed for the purpose of proving III.⁷⁷ Plato does say that his proposition I is $\pi\alpha\nu\tau\grave{\iota} \delta\eta\lambda\omicron\nu$ (87 c 2) but no weight seems to be put on this property of the proposition. But for Aristotle's syllogistic way of thinking the assumption of I on the grounds that it is $\pi\alpha\nu\tau\grave{\iota} \delta\eta\lambda\omicron\nu$ is very important. He goes on to say that the minor must be more probable, or equally strong as, the conclusion before we can call a syllogism an apagoge. In other words, an apagoge is a syllogism that does not carry conviction, because the major is $\delta\eta\lambda\omicron\nu$, the minor probable and the conclusion - voluntary. Aristotle says an epagoge can bring us nearer knowledge, if for example there are few mediations between the minor and the conclusion. In an apagoge you believe more strongly in the minor than in the conclusion. Apagoge is part of the logic of dialectic, and Ross (ad loc) cites Topics 159 b 8 - 23; 160 a 11-14. These are descriptions of what an answerer ought to cede in terms of $\tau\alpha \epsilon\nu\delta\omicron\varsigma\alpha + \tau\alpha \gamma\nu\omega\rho\iota\mu\acute{\omega}\tau\epsilon\rho\alpha$ in other words, not Plato's view of ~~things~~ at all. Nor is it clear what use such an argument would be to Plato. Now Aristotle has his own use for the notion of hypothetical syllogism,⁷⁸ which is part of the logic of demonstration. A hypothetical syllogism requires an additional agreement i.e. all A is B, all B is C, all A is C: if A is C then C is D. The additional agreement is underlined. This sort of arrangement could fit the Meno, but it is rejected by Socrates (89 c), who subjects the additional agreement to examination.

Shorey noticed that Aristotle seems to have the Meno in mind in the Analytics (Ross p.373 AJ.P.X 1889 452). Shorey gives three references: the

77. Using Ross' *text*
78. Anal.P. 50a 16 ff.

locus we have already dealt with, and passages at 67 a 21 f and 71 a 29 f.

In the latter cases the dialogue is named. The first of them is a criticism of the Meno Anamnesis doctrine set out in language Plato would never have dreamed of using:

67 a 21, ὅτι ἡ μάθησις ἀνάμνησις· οὐδαμοῦ γὰρ συμβαίνει
προεπιστάσθαι τὸ καθ' ἑκάστον, ἀλλ' ἅμα τῇ ἐπαγωγῇ λαμβάνειν
τὴν τῶν κατὰ μέρος ἐπιστήμην ὥσπερ ἀνογνωρίζοντας.
ἐνὶ γὰρ εὐθείᾳ ἵσμεν, οἷον ὅτι δύο θρόνοι, εἰ δὲ ἴδωμεν
ὅτι τρίγωνον.

Obviously we are being given Aristotle's version of the Meno in which his purpose is to counteract the tendencies of Plato's examples. Similarly 71 a 29 is plain Aristotelian solution: Meno's difficulty does not occur if we make the proper distinction between simple knowledge and qualified knowledge: 71 b 6 f

καὶ ἀλλ' οὐδέν (οἶμαι) κωλύει ὁ μαθητὴς εἶναι ὡς ἐπιστάσθαι,
ἐστὶ δ' ὡς ἀγνοεῖν. ἄτοπον γὰρ οὐκ εἶ οἷδε πῶς ὁ
μαθητὴς καὶ εἰ ὡδὲ οἷον ἢ μαθητὴς καὶ εἷς.

Bluck has given no reasons for thinking that Aristotle's handling of the hypothetical episode is any more sympathetic. But there are reasons for thinking that the episode sets Aristotle a terminological puzzle which he would be likely to solve in the way he has. For the choosing of the hypothesis in the Meno has a syllogistic flavour (all knowledge is taught, virtue is knowledge ...). But it is not a hypothetical syllogism since it is not ratified at 89 c. So nothing is proven. Yet the "hypothetical" method is supposed to be a help, an aid (*προὔργου*) - this again suggests something other than a hypothesis. For Aristotle the Meno method brings us nearer to knowledge, even though we cannot say what it is. For Plato, and for mathematicians, the 'help' given by a hypothesis should be more substantial than that - it should be the jumping off ground for a

solution. Apagoge, then, is what Plato should have called his method. The sting is, that it proves nothing, but carries some persuasive force; and it does not prove anything about the relation between hypothesis and arche. For Plato's diagnosis of the error of ~~the~~ ^{he} is wrong as usual, thinks Aristotle; he has no understanding of the acceptable limits of the hypothetical method i.e. the need for the additional agreement; and his apagoge never reaches the status of demonstrative syllogism.

Bluck also insists that what is brought into play when I move backwards to find a construction or the starting point of a proof is my noesis. Now noesis links to anamnesis - my "faculty", the nature of my thought, ^{the} is reason why I can do mathematics intuitively, in the absence of techniques, algorithms and convertible analyses. It seems appropriate to point out that the distinction between procedure and intuition follows codification and axiomatisation rather than precedes it. For instance, if anyone had asked Hippocrates "How do you come to reduce the circle like that?" I think it unlikely he would reply: $\nu\omicron\gamma\sigma\epsilon\iota$ meaning "by intuition: by genius." He would have said: "I proceed so because I can treat a parallelogram so ..." i.e. he would have explained his procedure with reference to the $\alpha\rho\chi\eta$ and not bothered about the "upward path" leading to it; and this because, if mathematics was not fully axiomatised and method not fine-honed, he would not be as conscious as we are of the difference between "obvious" and "achievable by application of method". This sort of work was being done by Leodamas and others during Plato's lifetime⁷⁹; and it is often suggested that axiomatisation and codification is the main use of the hypothetical method in mathematics. But it seems to go too far to imagine that a mathematical method ever included an "intuitive jump". Platonic notions of the 'upward way' and 'noesis' would be siezed on after it had become clear that certain 'intuitive' methods are irreducible. Nor is there any evidence that Platonic was fascinated by the 'intuitive' element of a special mathematical method, like hypothesis - apagoge.

79. Lee CQ 1935, 117 f; Gulley 1958 p.5-9; Lasserre, F 1964 p.107. Birth of Mathematics in the Age of Plato. Conford op.cit. p.66 (Allen) (= Mind 1932 p.41 f).

We cannot identify the mathematical method with any certainty. But some critics have admitted the arguments of Cornford and Gulley but assumed that reciprocal analysis is used here simply because it fits so well. Among these are Stahl and Sayre. Sayre⁸⁰ says: "There is of course no necessity that this characteristic of convertibility was part of all geometrical methods referred to as "analysis" ... Gulley allows, nonetheless that 'there is at least no doubt that Greek geometers were aware that a large number of geometrical propositions were convertible.." Apparently this is enough for Sayre who proceeds to show that there is no contradiction in assuming that convertibility is assumed in the Meno and Phaedo. As the evidence can be made coherent by this assumption, it follows that the assumption is rightly made. But no effort is made to prove that it is better interpretation to assume it, than not to assume it. Stahl⁸¹ bases himself on the claim of the geometrical example to have conclusive force. He claims that if 'Virtue is knowledge' is taken as hypothesis, then deductions are made from it - virtue is teachable, virtue has teachers; and so the method is traditional analysis! Stahl's arguments will be dealt with later, but one objection may be brought here: if analysis runs Virtue is Knowledge - virtue is taught - virtue has teachers, how does synthesis run? If it runs: virtue has teachers → virtue is knowledge, then the method is intolerably Unplatonian. For Plato the "higher" reason must come first.

Blass in the early C19 was already acquainted with thirty solutions to the mathematical problem which illustrates hypothesis,⁸² and they have multiplied since. Trying to work out the meaning of the passage by working out the mathematical problem first is obscurum per obscurius. It was some such method as this that probably led Farquharson⁸³ to reach his conclusion that "the hypothesis is the assumption that a construction may be provisionally assumed, the employment in an exact science of an indirect method of enquiry..." But even if the correct mathematical ^{solution} were available, the issue of what is meant by

80. p.22 n.1.

81. p.412 f; 417 f.

82. Heijboer p.88 f.

83. CQ 1923 p.26.

'hypothetical method' would be logically independent of it.

Certain things can be said about the mathematical method however. First, it is a specific technique, and not a general term for mathematical method: mathematicians use this method only some of the time.⁸⁴ Second it involves refusing to answer a question about this circle and this quadrilateral. We follow Bluck (ad hoc) against Friedländer and Stahl in assuming that *ἐποθεμενος* is used absolutely in both cases (86 e 3; 87 b 3). But once this is done, then the hypothesising is detachable from the mathematical example given. For the example given is a determinatio, setting out the limits of possibility. But the method in virtue of which or as part of which the determinatio is given is the hypothetical - which may only have an incidental connection with the fact that the illustration given is an illustration of a determinatio. This is even more likely if the suggestion is accepted that *ἐστὶν ἐποθεμενος* implies that "hypothesising" was not a term of the mathematical art.^P Gaiser (p.26 6ff) shows clearly how the notion of hypothesis must have changed between the pre-Platonic days when it meant "grundlegende, allgemeingültige Voraussetzungen" and its post-Platonic days when it is an assumption that may be confirmed or contradicted. He claims that this is unlikely to be completely the work of Eleatics and their "indirect proofs" or reductiones ad absurdum. For Plato emphasises the rôle of a higher, more adequate hypothesis, that seems to have no part in Eleaticism. Unfortunately Gaiser's subsequent argument relies heavily on readings of the mathematical problem, which we have eschewed. Also he spoils his ideas by going too far; his is one of the few treatments which appreciates the double movement in the Meno - upwards to a confirming supraordinate hypothesis (bestimmte Determination) and downwards to a consequence (teachability). But he takes the consequence to lead into questions of empirical experience or investigation (are there teachers?) and the supraordinate hypothesis to lead back to elementary postulates. The

84. 86 e 5.

notion of empirical experience is a red herring, though he uses it. The notion of elementary postulates is not in the Meno. The fact that both the mathematical and the ethical discussions can in Gaiser's opinion divide into five stages is not a safe proof of the extent or nature of the parallelism.

C. As neither philology nor mathematics helps us much it seems best to examine the Platonic evidence more carefully, and largely independently of other areas of evidence. The most obvious course is a survey of any discontinuities between the "method of the dialogues as practised before the Meno and as practised after it. But no such discontinuity leaps to the eye - except of course that later works are more ambitious than earlier ones, and show us more of the supposed "workings of Socrates' mind". If we look for a discontinuity in talk about method, then the answer is that there is more talk about hypothesis; but little of it seems to connect with the hypotheses of the Meno. True, the phrase *ἐξ ὑποθέσεων / ἐξ ὑποθέσεων* is used at Rp.510 b ff to describe both the method of dialectic and the method of mathematics; and the dialectical method is praised for the handling of hypothesis possible within it, ~~while~~ the geometrical method of handling hypotheses is dispraised. A knowledge of the hypothetical method is assumed almost from the start of the Phaedo (92 d) and the people who most understand it are mathematicians - Simmias and Cebes. But whereas in the Meno the method of hypothesis is decried, in the Republic it is only half decried, and in the Phaedo praised as Socrates' *genuine* method. We shall see that to think ~~so~~ this is to misinterpret the Phaedo: in the Phaedo, too, the mathematical method of hypothesis is inferior to the dialectical method. The three dialogues represent varying degrees of coolness towards the method. But there is a further difficulty. In the Rp., dialectic proceeds *ἐξ ὑποθέσεων* (singular); while mathematics proceeds *ἐξ ὑποθέσεων* (plural).⁸⁵ Now the Meno the mathematical method appears to demand a singular ad hoc hypothesis.

85. Rp. 510 b 8; 510 b 5.

The plural "mathematical hypothesis" seems to refer to elements of mathematics that have little connexion with ad hoc arguments. These "hypotheses" are axioms, basic postulates, existence theorems, or what have you⁸⁶ - but not determinations, mere theorems or reductions. It is quite possible that in the Republic Plato is importing a non-mathematical (rhetorical or dialectical) use of the word hypothesis into mathematics to describe hypotheses that only Plato regarded as hypotheses ... It begins to look as though the connection between the Meno method of hypothesis and the Rp. method of hypothesis is accidental and temporal only! Similarly there is a lack of cohesion between the Phaedo and the Republic. The Phaedo method (100 ff) is tentative, the Rp. method is decisive; there is also an possible tension within the Phaedo itself between the method at 100 ff and the method of hypothesis which is assumed elsewhere. The Meno passage looks like an attempt to point out the differences of mathematical method in dialectic: it takes a small hypothesis and contrives an elenchus for it. The Phaedo and Rp. may be generalisations of this same elenchus i.e. the later method of hypothesis bears the same relation to the Meno passage as the Phaedo doctrine of Recollection bears to the Meno doctrine of Recollection. Both Recollection and Hypothesis have connections with non-Platonic origins which are not specifiable.

We must first recognise the existence of a hypothetical method within dialectic. Arguments have a "hypothetical" necessity within them i.e. if A is granted, no matter whether true or not, then B must be granted. The hypothesis is "assumed" to be true and thereby restricts the rest of the argument. It does not seem to matter whether the "hypothesis" is an agreement about method, or a proposition in the argument. Consider the passage at

Gorgias 454 c:

ἀλλ' ἔτι μὴ ἐθελώμεθα ὑπονοοῦντες προαυξάνειν ἀληθῶν
τὰ λεγόμενα, ἀλλὰ οὐ τὰ αὐτοῦ κατὰ τὴν ἐπιστάσιν
ὅπως ἂν βούληται περὶ αὐτῆς

86. 510 c 3; Hare 1965 p.24; Taylor C.C.W. 1967, 195 ff; Robinson I 152 ff.

Dodds (ad loc) rightly says the word may have no technical meaning in this passage. He translates "foundation" and takes it that the refers to the definition of oratory first given. Classen⁸⁷ calls it a Prinzip für eine Diskussion and says its parallel is Rp. 341 b 8 — 346 b 2, where the verb refers to an initial definition⁸⁸. But there is slightly more to it. An astonishing amount of the Gorgias is taken up with emphasising the rule of question and answer, and how one either answers or asks questions. At points in the dialogue people change rôles. Polus and Gorgias promise to answer short answers,⁸⁹ a promise which cannot be withdrawn though any other statement of the argument may⁹⁰. So it is possible that hypothesis at 454 c refers to this methodological agreement. The important point to remember is true on both interpretations, that once put forward, the hypothesis can only be withdrawn explicitly. The answerer is as much bound by his own answer, as the questioner is bound by the reply to his question. This restriction on the liberty of the answerer is clear in a similar passage from the Hippias Major. Socrates has just solved a difficulty in the definition of beauty by invoking the following possibility: a sight-and-sound object may be beautiful, but the sight-object and the sound-object need not be beautiful.

302 e 11 f.

Soc: ὥστε ἀμφοτέρω μὲν αὐτὰ φάναι κατὰ κατὰ τὴν εὐδοθεσιν
ἔξεσιν, ἑκάτερον δὲ οὐκ ἔξεσιν· ἢ πῶς λέγομεν; οὐκ
ἀνάγκη;

Hippias: φλίνεταί

Socrates: φῶμεν οὖν ἀμφοτέρω μὲν κατὰ εἶναι, ἑκάτερον δὲ μὴ φῶμεν

Hippias: τί γὰρ κωλύει;

Socrates of course goes on to show that there is another question to be dealt with first. Hippias is a very bad dialectician, but his readiness to accept

a hypothesis as true is typical of the interlocutors. For Hippias the

87. p.73 Classen

88. Op.cit. 97.

89. 448 e; 449.

90. 461 d; 462 a.

the acceptance of a hypothesis is the end of something.

There is another parallel at Euthyphro 9 d 6 f:

Euthyphro: τί γὰρ κωλύει, ὦ Σώκρατες;

Socrates: οὐδὲν ἐμέ γε, εἰ Εὐθύφρων, ἀλλὰ σὺ δὴ τὸ σὸν
σκοπεῖς εἰ τῶτο ὑποθέμενος ὅτι πάντα με διδάξεις
ὁ ὑπέρχου.

Euthyphro is putting forward a definition.

The division of rôle between answerer and questioner is clear. The next step ~~for~~ both Euthyphro and Gorgias is the examination of consequence. The hypothesising, which for most people is a help towards something else because it ~~is~~ true corresponds in elenchus to the point at which Socrates says ἔχε δὴ: hold it: we must go no further, and of course it is in the effort to go no further that Socrates begins his questions. The "going no further" is the hypothesising: the consequences must follow not lead. The sense of hypothesis that comes through most plainly is a feeling of fixity. As far as the interlocutors are concerned there is no sense of tentativeness, no notion that a hypothesis is put forward as an approximation to be dispensed with. Their view usually is that it is an adequate approximation.

Now Robinson explains that hypothesis begins life as a proposition, posited for the proof of some other proposition, "a premiss and not a demonstrand."⁹¹ but, he says, the verb hypothesize" came to "assume" the sense of 'posit in order to test'. It came to assume this meaning because of two similarities (a) a hypothesis is the beginning of a train of thought both in elenchus and elsewhere (b) in both elenchus and elsewhere, the hypothesis is posited by the answerer. In indirect elenchus the answer is posited at the beginning of the refutation. In other words, in any report of a Socratic elenchus, the purpose of eliciting a hypothesis seems to be to destroy that hypothesis. But Classen⁹² seems to find only five cases of hypothesis adduced as assumptions under condition that they might meet with contradiction: they

91. Robinson I p.113.

92. op. cit. 77.

are Phaedo 94 B 1; 107 B 5; Timaeus 61 D 3(bis); Theaet. 165 P 1. But none of these is unambiguous. His examples of hypothesis introduced as assumptions with the possibility of contradiction expressed come without exception from the Parmenides. In other words, in dialogues usually agreed to be early, the notion of "hypothesis" must be in the process of being reformed; and the interlocutor brings to the conversation a notion of hypothesis foreign to the elenchus.

At 454 c, Socrates must draw out Gorgias' conclusions in the way that most accurately reflects meaning: Gorgias must state his own opinion, Socrates had no hand in it. Now at any moment an answer in the spirit of a hypothesis may cease to reflect the real dialectic. For an answer "in the spirit of" previous answers may be an insincere answer which the answerer will give for the sake of the argument. This is the difficulty of Theaetetus.⁹³

ἔάν μὲν, ὡς ὥκρτες, τὸ δοκοῦν πρὸς τῶν νῦν ἐρωτῶν
ἀποκρίνωμαι ὅτι οὐκ ἔστιν. ἔάν δὲ πρὸς τῶν προτέρων,
βυβλίστων μὴ ἐναντία εἴπω ὅτι ἔστιν;

The procedure seems to be that Socrates having proved a "hypothesis" is

asked, not for another hypothesis, but:

"Λέγετε δὲ ἅπαντες ἀπὸ τῆς ἀρχῆς. τί φάτε εἶναι τοῦτο τὸ καλόν."
(Hipp.Maj.303 d).

The moral of Socrates' triumph is the same in the Meno - namely, that you do not at all know what you are talking about unless you give me the right answer. Concentrate on the arche (ἐξ ἀρχῆς), he seems to say: concentrate on the first answer - you will not get subsequent answers right, if that answer was wrong. So what is new in the Meno, that might have led to the elaboration of dialectical method with regard to hypothesis?

No answer seems to be forthcoming if we look for a special type of thing to be a hypothesis. Robinson has shown that the verb is not restricted to definitions or existential propositions.⁹⁴

93. Theaetetus 154 c 10 f.

94. Robinson I p.99 ff.

A second approach takes "hypothesis" to mean a concept, supporters of the approach

point to the mathematicians' hypotheses of Rp. 510 d, which are circles and triangles not forms of words⁹⁵. But C.C.W. Taylor has shown that there is no use of hypothesis in which the word must not refer to a proposition.⁹⁶ Gosling translates 510 c as "hypothesising that there is such a thing as the odd and the even" where the 'odd' and the 'even' seems to mean little more than areas of interest, subjects of investigation.⁹⁷ Getting at the meaning of hypothesis through its content does not seem to be particularly fruitful.

D We divide Meno 86 d 3 - 87 c 10 into three sections.

(a) 86 d 4 - e: Simply states the circumstances they find themselves in: the pair know nothing about what virtue is (or 'the real virtue') neither what it is nor what sort of thing it is. They wish to find out the answers to these questions, but Meno wants to know the answer to the logically posterior question first.

(b) 86 e - 87 b 1: *ἀλλὰ σμικρόν γε μοι τῆς ἀρχῆς χάλασον*
is probably a pun.

How can mathematicians help? Now *τὸ εἰς σκοπέσεως σκοπεῖσθαι*
is a way of examining dark matters where direct knowledge is minimal, as it is for V.M. But Socrates specifies how this is to be done. In the circumstances, it is unlikely that *σκοπεῖσθαι* the same meaning in each occurrence. It is unclear whether *ὥσπερ* emphasises the technicality⁹⁸ of the expression, or its metaphorical sense. So we are hard put to it to find the necessary innovation of technique. I reconcile matters by claiming that *σκοπεῖσθαι* (87 a 2) is used by a mathematician, explaining his action through a metaphor regardless of the technicality of the expression;

95. Hare, R.M. Stenzel-Allen p.85; 36 ff.

96. Taylor C.C.W. 1967 p.193-203 esp.195 ff.

97. 1973 p.111 f.

98. E. de Strijcker op.cit p.146.

99. Bluck:Meno p.92 etc.

and at 87 a 9 and 86 e 4 he states his method emphasis, its technical use. Both uses of *ἐπὶ δὲ μένος* (87 a 9; 87 b 4) may or may not be absolute: their parallelism points to it (Bluck ad loc.).

Three elements seem to be involved in "hypothesising". First comes the choosing of the hypothesis relevant to the problem. This hypothesis is certainly used as a base for further operations; and is something independently known. Choosing the hypothesis is concurrent with a denial of any knowledge whether this triangle fits into this circle. Second is the announcement: "I am willing (= can) to tell you the answer hypothetically" (*ἐθέλω* in this sort of context = "I am able," "I can legitimately ..."). The hypothesising has occurred - and a result follows. The third element does not occur in our passage, and that is the question, how much knowledge my hypothesis can give me. A "diorismic" hypothesis states limits of possibility, and can therefore tell me whether or not my problem is capable of solution. A merely heuristic hypothesis can fail without giving me any information at all. The example Plato has actually chosen is an ambiguous one. For the example chosen is diorismic; it takes the form of a construction which may or not be possible; the 'hypothesis' can be put into the form: 'if p, then q'; or it can be put into the form, 'p' where p yields the desired result, q. How many of these elements are paralleled in the ethical discussion is not obvious.

(c) 87 b 1 - 87 c 9

The first sentence corresponds to section (a). From *ὅδε λέγοντες* it corresponds to section (b). It is repeated from (a) that we neither know *ὅτι ἐστὶν οὐδὲν ὁριστόν τι*. In these circumstances, mathematicians say *εἴ μὲν τοιοῦτον... εἴ δὲ μή* - the emphasis is on knowledge of the quality - there is no suggestion that a mathematician ever knows *ὅτι ἐστὶν*. Stahl on the other hand claims that this confusion is merely the result of Plato's terminological carelessness,¹⁰⁰ comparing Meno 97 b 11. For Stahl, the mathematician and Plato hypothesise the "what
100. Stahl 1960 p.412; n.1; 413; n.1.

it is", (cf. Phdo 93 c 10 where *ὁ ἐκεῖνο ὑποθέμενος* refers to a definition). The question becomes: "being what would it be such?" But such a question is only appropriate to the ethical example, and only occurs in an ethical context. The form of the mathematical procedure is "if it is such ..." which by-passes "being what would it be such?"; and the form of the ethical example seems to press the point that here we deal only with a posterior question (*πρῶτον μὲν δὴ εἰ ἔστιν ἀλλοῖον ἢ ὅσον εὐταίην*). It is difficult to see how the question "what it is..." arises in this mathematical problem. What the mathematician assumes is the hypothesis that it is so.

That virtue is such - becomes that 'virtue is knowledge'. It is very much the sort of thing one expects Socrates to say - though he is quite capable of attacking the proposition as in the Laches. The statement A "if virtue is knowledge, then virtue is teachable" is also typically Socratic; as is "if you say virtue is teachable, then you must produce teacher/pupils of it."¹⁰¹ A couple of typically Socratic ploys are here used in a new way; neither of the ploys is questioned, or thought to be uncertain. At 89 d when Socrates refuses to withdraw A he uses a word associated with hypothesis (*ἀνατίθεμαι*). But A cannot be a foundation (to continue the metaphor, it is a coping stone). Equally, in the mathematical method of analysis, the hypothesised proposition is simple - from which a second proposition is deduced. It is generally agreed that the "hypothesis" in the mathematical sense is "virtue is knowledge"¹⁰² - a proposition which is then apparently proven. The hypothesis is used to prove "virtue is teachable". Robinson describes it as follows: "(The hypothetical method) is a method for deciding whether a given proposition, say q, is true or false; and it consists in abandoning the attempt to prove or disprove q directly and finding some other

101. cf. Ptgs. 319 C-E; Laches 185 B f; Alcib. Maj. 110 f; Xen. Mem. 3, 5, 21; 4, 2, 2. Heinemann Rh. Mus. 1951 p. 126 f; 106 n. 7.

102. Bluck: Meno p. 86, n. 4 and his loci; Gaiser p. 282.

proposition, say p, which is equivalent to q, so that q must be true if p is true and must be false if p is false. "The links between the two parts of A is thought of as equivalence. But Robinson is obliged to ignore the verbal indications of the presence of ~~hypothesis~~ elsewhere in the argument,¹⁰³ and he gives no reason for, nor fruits of, Plato's sudden interest in the equivalence relation. Bluck makes more use of the fact that the only proposition to be called a hypothesis in the Meno is "virtue is good" (87 d 1-3) "If the premiss from which 'virtue is knowledge' is deduced is only itself a *ἐπὶθεῖται* ... and if the reasoning as a whole is necessarily provisional, since *ἀρετή* has not been defined, it can only be true in a very special sense to say that that 'virtue is knowledge' is 'proved' "¹⁰⁴. This special sense, he suggests, is that it is said conditionally on the truth of a higher hypothesis. Bluck's approach seems to me to contain the germs of the correct answer, but he has assumed too much when he thinks that *ὅτι ἐξ ἀποδείξεως* *οὐκ ἔστιν ὀρθόν* simply means conditionally. For what is "hypothetical" in our sense in the mathematical proof is not the truth of the hypothesis, which, if true, is true; but the adequacy of the hypothesis ~~is~~ to the proof of the second proposition. The link from the hypothesis to the second proposition is some form of implication. It is because I know the hypothesis that I can attempt the question, but I cannot tell whether my knowledge of the hypothesis will yield me knowledge of the solution to the problem. If my hypothesis is a determinatio, or if my analysis is a matter of reciprocal implication, then the failure of the hypothesis will always yield knowledge. Plato proceeds to prove the hypothesis. But there is no reason to suppose that he is here following mathematical method. He has given an answer in a mathematical way, dependent on what would be a theorem of a Socratic theory if Socrates could prove anything; but the next dialectical thing to do is to prove the

103. Robinson I.p.118 The notions of ^{po}hypothesis ... are running in Socrates' mind, so he has a tendency to use them on any suitable or even speciously suitable occasion.

104. Bluck Meno p.88.

hypothesis. This proof takes the place of the construction in the mathematical example without being at all the same thing. In fact the broad outlines of the last section of the Meno read like the use of dialectical methods on a man trained only in mathematics: A correct "mathematical proof by hypothesis" is given; but it falls victim just the same to Socrates' gift of reversal. It follows that the mathematical - hypothetical method is inadequate in dialectic.

But the Meno is especially important to us because the two halves of the argument are treated together as part of a whole. Certain propositions hold throughout the argument, certain propositions are withdrawn and replaced. How, in the midst of the general reversal, to keep our heads and avoid concluding that argument is foolish and there is no truth anywhere? I suggest the answer lies in the structure that binds the two arguments together, and in its message, that without knowledge of an arche no knowledge is possible.

Robinson's difficulty lies in finding one proposition to be the hypothesis. This question applies only to the mathematical method. The dialectical method quite obviously has lots of hypotheses, varying in type. Lynne E. Rose has given an elegant demonstration of this.¹⁰⁵ He writes out the first argument of what I shall call the Meno diptych as follows:

1. Knowledge is taught
2. If virtue is knowledge, virtue is taught (1)
3. Virtue is good
4. All good is profitable
5. Thus virtue is profitable (3, 4)
6. If something in the soul is profitable, it is knowledge
7. Thus virtue is knowledge (5, 6)
8. Virtue is taught (2, 7)

105. Rose, L.E. Journal of Hist. of Philosophy 1970 pp.1-8 esp. p.3.

He points out that 3 is called a hypothesis 87 d 3; that 2 is treated as a hypothesis at 89 d 4, if not at 89 c 4; and that 7 is called a hypothesis at 89 c 4 where *ἐν ὑποθέσει* is in loose apposition to *ἐπισημασμένη* (there seems no reason to accept this "explicit reference" but Stahl p.413). Now if 2 is treated as a hypothesis by virtue of the phrase *ὅτι ἀνατίθεται* then he argues (4 ff) that 6 must be a hypothesis because it is also withdrawn. If 2, 3, 6, 7 are treated as hypotheses, but only two of them are called hypotheses, it follows that there may be many more. Now this argument does not help us with mathematical hypothesis, but it does bring out the proliferation of hypothesis natural in dialectic. 2 and 6 are 'hypotheses' because they are withdrawn - the withdrawal of a hypothesis has no rôle in the mathematical method. Unfortunately the argument is not strong enough to establish that 2, 3 are 'mathematical' hypotheses; and 6, 2 are dialectical. Nor can we be sure that 6 is simply withdrawn, for Plato represents it, as we shall see as a misdeduction, and consequently, not an independent hypothesis. For Rose¹⁰⁶ a hypothesis remains a hypothesis after deduction from a higher hypothesis. He envisages a chain of them descending from the good. A hypothesis is what may be questioned; i.e. withdrawn from a specific argument in order to justify the hypothesis more fully. We must hold fast to the idea of a chain.

Simplifying greatly we get the following:

- 1 virtue is good
- p virtue is knowledge
- q virtue is teachable
- r virtue has teachers.

Now in our simple world, the process might read: 1 is a necessary condition of p, and p a necessary condition of q; but ~~our analysis is not convertible. Plato would then be pointing out like Aristotle at Post.Anal.78 a that most dialectical propositions are inconvertible, whereas most mathematical propositions are convertible. It~~

106. op.cit. p.6; Journal of History of Philosophy 1966 p.192.

is because of the lack of convertibility that it is so important to proceed in dialectic from the $\alpha\beta\gamma\delta$ (1, p, q etc.) to the consequences and not vice versa. But there is no sign in the text that is what Plato means. Instead he tells us that virtue is good; good is useful; useful is knowledge. He proves the latter by an exhaustive diaeresis into blessings of the body, blessings of the mind etc. When a flaw is found in the argument he tells us the mistake was made because the diaeresis was not exhaustive. Neither the statement: 'if virtue is good, then it is knowledge' nor the statement: 'if virtue is knowledge, virtue is teachable' is ever impugned. He tells us only that ^{an agreement} 'if p then q, p, \therefore q (M.P.)' is not sufficient. For one must first be sure of the inference from p to q; and one is only sure of it if one knows p. In both cases one wing of the conditional is rather dubiously proved to be untrue. So a double pressure is exerted on p from above and below. (1, q).

Presumably 1 is not refutable; and it stands as a carry over from the preceding ethical discussion.¹⁰⁷ The method of standing assumptions, carried from one argument to the next, is, as we shall see from the Phaedo, associated with the hypothetical method. But a mistake about p is possible, because it has not been firmly attached to 1. Similarly q is not firmly attached to p. It is not the uniquely necessary consequence of 1, that p.

At the same time we must be clear that "deduction" in the Meno is a two-way business - starting from p (to 1, somehow) and from 1 (top) and from p (to q) and from q (to p) and from q (to r) and $p \leftrightarrow q \leftrightarrow r$ is given. But $1 \leftrightarrow p$ is not given; nor is p, q, r. At once we discover the anomalous position of 1: it is given and in two senses

(a) it is inherited from the previous ethical discussion and (can therefore represent a known theorem of mathematics).

(b) it is somehow closer to undeniability and the roots of Platonism.

Now our hypothesis is p. An easy way of proving p is for it to be

107. Meno 77b 6; 78 c 6.

implied by 1. But 1 is a fact of life and has to be adapted to the point in hand, viz. p. Hence the strange deductions Plato gives about the good being useful. But Plato insists on "deducing" consequences. He can only be sure of p, if from no angle does it appear $\neg p$. So he adds further tests he would expect to be positive if p is true. We get the dangerous position

$$1 \rightarrow p \rightarrow q \rightarrow r; 1 \therefore r \quad \text{M.P.}$$

$$\text{where } p \rightarrow q \rightarrow r; \neg r \therefore \neg p \quad \text{M.T.}$$

Somehow, we suggest Plato must save himself from

$\neg r \rightarrow \neg 1; \neg r \therefore \neg 1$. In other words, the writ of Modus Tollens must not run as far as 1. Plato saves himself from saying 'Virtue is not good' by the very artificial device of spotting a misdeduction. The only method Plato proposes of correcting such mistakes is to make a correct and exhaustive diaeresis. But the goodness of virtue is a belief to which the Socratic is committed. Anything else lands him in the contradiction of believing that the good is bad and the bad good. This may be one reason why it is necessary to put a seal on the form of beauty, and never identify it without definitions or explanations. If we end our discussion by saying virtue is not good, it is we who are at fault, not virtue. So too in the frightful case of 'Good is not good'. We suggest then that some of the reasons for the postulation of Forms may have their roots in the need to prevent Modus Tollens from striking ideas of an "exalted status"¹⁰⁸ or of ontological nobility. We do not know the propositions in the '1' group because of their consequences, and we can infer nothing to their detriment from failure of those consequences. Dialectical reasoning must work from the arche to the consequences. If the consequences are unacceptable then the arche has been misunderstood: as Socrates says in the Cratylus:¹⁰⁹

δὲ δὴ περὶ τῆς ἀρχῆς πάντος πράγματος παντὶ ἀνδρὶ τὸν πόρον λόγον εἶναι καὶ τὴν πόρην σκέψιν εἶτε ὁρθῶς εἶτε μὴ εὐδοκεῖται· ἐκείνης δὲ ἐξετασθεῖσης ἑκάνως, τὰ δοκίμα φανέσθαι ἐκείνη ἐπόμενα.

108. Crombie vol.II p.354; Ryle: Plato's Progress p.213.

109. Cratylus 4368.

E However a school we are calling Popperian might argue as follows:
 the strength of a hypothesis comes from the failure of attempts to refute
 it. To strengthen a hypothesis you do not justify it but elenchate it.
 This attitude to 'Meno' derives some support from the attempt to explain
 Phaedo 100 d 1 ff. as: before deducing your hypothesis from another
 hypothesis, test it for its power of producing contradictions. We shall
 question whether or not Phaedo 100 d 1 ff does mean this. Accordingly,
 the fault of Meno procedure is that the hypothesis is justified rather
 than elenchated. Crombie appears to be thinking on the same lines, but¹¹⁰
 with more attention to deduction. He reads the following moral into the
 Meno: "This circuitous path could have been avoided if the things that
 emerge from supposing that virtue is knowledge had been scrutinised before,
 rather than after, the production of arguments in favour of this view. For
 if that had been done the view would have been ruled out from the start."¹¹¹
 Socrates finds his hypotheses on this view simply by eliminating old ones -
 a rather negative way; and one that Popper has avoided discussing by
 dismissing as a matter of psychology the relations between the hypotheses
 successively elenchated. We may doubt that the middle Plato had reached
 this pitch of scepticism. He was looking for schemes of justification,
 explanation, of opening the ways of God to man.¹¹¹ To help himself he had
 started jostling sets of beliefs. It was not beyond his hopes that by
 arranging, or understanding, these beliefs correctly they would prove to be
 harmonious. "Elimination" is inadequate for this process. Certainly I
 can only be sure that I have understood my interlocutor after asking questions
 i.e. drawing consequences. But ~~certainly~~ of my interlocutor's beliefs are true
 ones, which must not be abandoned in the general mêlée of elenchus. So when
 Crombie goes on to say: "The point that must be clearly seen is that a higher

110. op.cit. p.545.

111. Gosling 1973 p.115 ff "when Plato talks of degrees of truth he is almost invariably considering the adequacy of a discipline to producing adequate answers."

hypothesis i.e. may be as good grounds for an untenable or for a tenable lower hypothesis and that this may be so even though the higher hypothesis is true... Therefore an eristic could easily confuse his opponent by first producing what seemed to be a clinching argument in defence of some view and then showing the views to be untenable. Such practices could easily induce in their victims ^{misologia} Misologia is just what Socrates is trying to induce in the Meno. But his cure for the antilogy he produces is not to "draw consequences" before adopting a hypothesis, but to redirect the attention to the prior questions, whatever they are. Using other dialogues, we may guess that these prior questions are the peculiar province of dialectic; but the need to draw consequences before adopting a thesis (*ὑποσέβειν*) is tactical only.

I think the Popperian sort of position is unlikely for the following reasons:

(a) You can go on drawing consequences without hitting an anomaly and without proving anything. But Socrates does not so much draw consequences as look at things from all angles, after he thinks he has established them. The consequences in the Meno are drawn in the usual place - after the establishment of the conclusion (Meno 89 b, 89 d. cf. Gorgias 480 a 5 ff).

(b) Merely noting contradictions among prima facie consequences is a recipe for eristic, not a protection against it. A recommendation that the grosser types of contradiction should be avoided through the use of a quick elenchus is too trivial to be the moral of the piece.

(c) Plato does develop a positive science of handling hypothesis - explications of the concepts of negation, identity, similarity and the like. Specifically in the Meno, we find the hypothetical method gives us the entry to a mechanism of deduction that yields correction. This mechanism checks previous arguments for mistakes, and combines or reconciles arguments. At 87 d 2 we resume the hypothesis 'virtue is good'; at 96 d f We correct the previous argument; at 98 d 5 ff we summarise the joint argument. In fact consonance with previously established hypotheses is one way of "eliminating" other hypotheses;

and the preparation of a scaffolding of hypotheses into which a new one ought to fit is a novelty of the Meno/Republic period (Phdo. 92 df). We have no reason to believe that Plato objected to the principle of deductive justification.

(d) The dialogues have strong protreptic elements. They ~~did~~ not publish Plato's beliefs - but hint that they could say more than they choose to say. The 'aporetic' nature of the Laches or Euthyphro is more apparent than real. It looks like a convention of literary form, rather than a convention of argument. The "destructive" Popperian attitude of Plato to hypotheses may well be an illusion.

F It is clear from all this that Plato thinks there is something wrong with method of hypothesis he has used in the Meno. ~~This is either~~ because there is something wrong with the method of hypothesis or because he has made a mistake in his use of it. To answer either question it would be useful to know the mathematics of the situation; but we can do something without very tenuous knowledge of the mathematics. For it is difficult to see what Plato could have found wrong with the method of apagoge, or reduction; and Bluck does not suggest that Plato makes a mistake in its application of the sort a good mathematician would notice, but Meno would not. As for loose intuitive analysis - the tradition associating this with Plato is a thin one;¹¹² and most of our descriptions of the method are heavily influenced by Platonic vocabulary. But no one has proved that strict analyses did not exist. Robinson claimed that even if it did exist, still it was not the method used in the Meno. Stahl claims that it is the method used in 'Meno'. For, he argues, if 'virtue is knowledge' is the hypothesis, two "consequences" are deduced from it.¹¹³ The answer to the question: "What is virtue?" is the real focus of the dialogue, and it is natural that the answer to this: "virtue

112. Cornford op.cit. p.68 f; Lee, C.Q. 1935 p.113-114 p.118 f; Cherniss, H. Rev. of Metaphysics 1951 p.395-425 esp.418.

113. Stahl p.418 f.

is knowledge" should be hypothesised. On Stahl's account the argument does not end until $\sim r$ is proven; for the passage $p \rightarrow q \rightarrow r$ is an example of "deducing the consequences" of a hypothesis.

There are many things wrong with this approach. The first we have touched on: ~~in~~ the synthesis the proposition virtue is knowledge is deduced from the fact that virtue is taught. Second, he ignores the 'antilogical' structure of 86 e *-adfin.*. As in many dialogues the same thing is both proved and disproved. The implication is that the proposition was not proved in the first place. Most people seem unready to draw the further conclusion that what can be proved without being proved can be disproved without being disproved. So the proposition is not really disproved either: it is simply not known. For knowledge is what stays put and cannot be made to look opposite to itself. It follows that what is demonstrated is not the truth or falsity of propositions so much as the lability of propositions. We certainly cannot conclude that virtue is not knowledge or that knowledge is not the only good. The propositions require to be reconciled and held fast in a framework. Perhaps it is not fanciful to see a connection between $\delta\rho\theta\acute{\iota}\delta\omicron\varsigma\epsilon\alpha$ which is the outcome of the practice of dialection the Slave and $\delta\rho\theta\acute{\iota}\delta\omicron\varsigma\epsilon\alpha$ which is the morally unexceptionable statement virtue is knowledge. For neither can stand fast in a dialectical process. A clever Socrates can make the opposite seem true.

The third weakness of Stahl's approach is that he removes the only available witness to what the method of hypothesis might be. For Meno is under the impression that the hypothetical argument ended at 89 c. He is prepared to accept that virtue is teachable $\delta\nu\alpha\gamma\kappa\alpha\iota\omega\varsigma \kappa\alpha\tau\alpha \tau\eta\nu \delta\alpha\delta\omicron\theta\epsilon\omicron\nu$ like Hippias in our earlier example. He might be missing out on mathematical form of Socrates - but the fact that Socrates now refutes the conclusion is so usual that it is no argument for claiming that Meno does not know how the conclusion is to be arrived at $\kappa\alpha\tau\alpha \tau\eta\nu \delta\alpha\delta\omicron\theta\epsilon\omicron\nu$. It is also likely that the argument ends at 89 c because $\sim r$ is proved in conversation with

Anytus - which is quite a severe break; while 96 cf is ostentatiously the finding of a new argument.

Finally Stahl is reduced to making nonsense of 1. He says 1 is called a hypothesis because it involves an implication (= deductive) "virtue is useful". So he is condemned to say that the only single proposition to be called a hypothesis in the work is "not too loosely so called" ("nicht ganz ohne Berechtigung.")¹¹⁴

There seems to be no safe evidence for what the specific mathematical method of hypothesis was. The method of Analysis is the only method in which the conclusion is hypothesised: and we have seen no internal evidence that fits it. In the other forms of hypothetical method suggested, the hypothesised statement is always the grounds of proof - the beginning of the demonstration. The hypothesis is better known than the conclusion. In these circumstances one can suggest that the 'method of hypothesis' was a way of describing how a mathematician confronted with a problem will very often begin his solution at a known theorem which is relevant or more closely connected e.g. is a part of the problem, a simple element in a complex problem of several elements. The point is, he works from what is known, blind as it were, to what is required. The description of such a method is easily generalised to fit any geometrical method that stops short of complete "proof from the axioms".

Now there is little point to Plato's dragging in mathematics without reaping any benefits, even if it is true that mathematics is only related to true method as *orthē doxa* to *epistēmē*. I can only suggest that the mathematical method was pressed into service because it is a conspicuous example of the use of (a) unquestioned propositions (b) extrapolated from one argument to another (c) combining with other hypotheses to produce a system powerful enough (d) to select in some fashion additional hypotheses. Plato nowhere suggests that what he says in the hypothetical section is a tissue of lies. The point is that his system keeps reversing itself. So

114. Stahl p.414.

for Meno. If Socrates had been able to teach him that virtue is teachable by merely proffering a hypothesis or endoxon from his store, namely that virtue is knowledge, a thing Socrates probably believed, then Meno would have been able to defend the hypotheses against the use of a criterion of knowledge which it is very easy to rob of its sting.¹¹⁵ What settles a system is the arche of which there are a few indications in the Meno - a pun (86 e 2), the insistence that knowledge and true belief are different (86 b 6 ff) and the asseveration that knowledge of what^{it} is is prior (e.g. 100 b 5). But Meno himself is the witness that something more than hypothesis is necessary.

We have argued that the phrase *τὸ εἰς ἀποδείξεις ἀναγκαῖον* has multiple reference - as foundation, as element of a chain, as theorem, as certainty, as a method of considering the unknown starting from a known general principle. But we have failed to find a satisfactory specific mathematical technique that is closely followed by the ethical discussion. The ethical discussion appears to presuppose a chain; and the *εἰς ἀποδείξεις ἀναγκαῖον* element is simply the attachment to or interpolation of a link into the chain, as when one deduces a rider to a theorem, or reduces one theorem to another, and considers the result proven. Questions of implication, and what sort of implication is necessary, do not appear to be raised in the Meno. The method is not adequate to the production of knowledge, for reasons which can be extended to cover all mathematical methods. It is implied that there is something to be learned from the mathematical methods - and I suggest this 'benefit'¹¹⁵ to be derived from treating dialectical statements as linked hypotheses. The flaw of mathematical method can hardly be that it does not draw consequences before justifying a proposition deductively; but must be something like the fault of not dealing sufficiently with prior

115. Koyré, A. Discovering Plato 1960 p.17 cf. Bluck's Meno p.41; 24!

questions, first principles. They are content to leave one proof hanging on another. We also noticed that Socrates' method is not so much to destroy hypotheses as to manipulate, shuttle and reverse them. Of this activity there can be a positive study; but it is a study about hypotheses rather than the finding of one hypo-hypothesis. But this is to trespass on later ground.

Dialectic makes the running rather than mathematics. Socrates is describing a dialectical method.

III

Stahl has produced arguments purporting to prove that Plato recognised a primitive Satzlogik in the matter of hypotheses. The argument is that what is taken over from mathematics in the Meno is the notion of equivalent propositions (i.e. $p \leftrightarrow q$: biconditional implication). This, says Stahl without acknowledgement to Aristotle, is more suited to mathematics than to dialectic. The proper method of dialectic is to deal in mere implication. Now biconditional implication has the advantage that what you know of one side of the equation you also know of the other. But mere implication warrants you only two inferences: from the presence of p where $p \rightarrow q$ we can infer the presence q (modus ponens); and from the absence of q (i.e. $\neg q$), where $p \rightarrow q$ we can infer $\neg p$ (modus tollens). Stahl claims that Plato deals only in equivalences and this is proved for two cruces:

(a) where Plato needs only M.P., he states equivalence

(b) where Plato observes the possibility of M.T. he will only act on it if he can state it first as equivalence. In his own words (416) Das heisst logisch gesehen: für ihn verlief der Weg vom modus ponens zum modus tollens nur aber den "Äquivalenzschluss, denn erst nach vollzogener Umkehrung von Hypothesis und Folge (98 d 12) in positivem Zusammenhang schliesst er aus der Verneinung der (ursprünglichen) Folge auf die Verneinung der (ursprünglichen) Hypothesis (99 a7)". And later, after an examination of the arguments against the thesis that the soul is a harmony (Phaedo 92 d ff) he concludes: "Damit bestätigt unsere Erkenntnis, dass die theoretische Forderung nach wechselseitiger Implikation für die Praxis Platons ohne Bedeutung bleibt."

We agree with Stahl that Modus Tollens is never used in serious Platonic argument. But we claim that far from being unaware of the possibility of using Modus Tollens, Plato regarded that possibility as pernicious; and the

attempt to rub it out of court underlines a portion of dialectical method.
 For Modus Tollens underlies reductio and absurdum. First we examine
 Stahl's proof (a) and (b) in the Meno: He cites 87 b 5 ff pointing out that
 two equivalences are given:

87 b 5 ff I $\begin{matrix} P & & q \\ \text{(if virtue is knowledge, it is teachable} \\ \text{(if virtue is not knowledge, it is not teachable} \\ \sim P & & \sim q \end{matrix}$

87 d 4-8 II $\begin{matrix} P & & q \\ \text{(if there is no good that does not fall under knowledge, then} \\ \text{(} & & \text{good is knowledge} \\ \text{(if there is a good that does not fall under knowledge, then} \\ \text{(} & & \text{good is not knowledge} \\ \text{(} & & \sim P & & \sim q \end{matrix}$

II permits the deduction of I from A where

A : virtue is (a) good.

Plato does not stop there. He adds III.

89 d 6 ff III $\begin{matrix} q & & r \\ \text{((a) if something is teachable then it has teachers and pupils} \\ \text{(} & & \\ \text{((b) if something has no teachers or pupils, then it is not} \\ \sim r & & \sim q & & \text{teachable} \end{matrix}$

III of course is not an equivalence, but a statement of mere
 implication (involving M.T.)

Stahl argues that the course of the Meno runs:

$p \rightarrow q \rightarrow r; \sim r; \therefore \sim q; \therefore \sim p.$

But he points out that at 98 d 7 ff this result is stated and III a
 replaced by III b.

III (b) $\begin{matrix} r & & q \\ \text{(if a thing has teachers, it is teachable} \\ \text{(} & & \\ \text{(if a thing has no teachers, it is not teachable.} \\ \sim r & & \sim q \end{matrix}$

i.e. III(b) is a statement of equivalence.

Similarly I.b. reads

Ib $\begin{matrix} q & & p \\ \text{(if virtue is teachable, then it is knowledge} \\ \text{(} & & \\ \text{(if virtue is knowledge, then it is teachable} \\ p & & q \end{matrix}$

from III b and I b it can be concluded that virtue is not knowledge i.e. $\sim p.$

In other words, to prove that virtue is teachable, Plato gives a succession of equivalences where mere implication would do. To prove virtue is not knowledge, he gives us a succession of equivalences where M.T. already runs and where, in consequence, equivalences are unnecessary for his purpose. Plato is aware of mere implication (III) but he will not use Modus Tollens (hence III b) in such circumstances. He has lifted the notion of equivalence from a mathematical source - obviously the method of Strict Analysis.

We have already shown that Stahl's reconstruction

$$p \rightarrow q \rightarrow r; \sim r = \text{analysis-deduction.}$$

is a serious grossening of the argument. But his logical point would hold even if Meno 87 ad fin. were not a single "mathematical" argument, but a unified dialectical one. His philological arguments are too weak to prove that the reason for the logical anomaly is Plato's failure to appreciate the convenience of Modus Tollens. If he cannot prove that Plato fails to use M.T. because he is blinded by Strict Analysis, then he fails to prove his contention that Plato used Strict Analysis. If this is so, then a different explanation must be provided for the fact that Modus Tollens does not seem to run at least in Platonic arguments of this date. We also see the method as something other than a propositional logic.

The main argument against Stahl is that he assumes a principle of logical elegance that he has no right to. If both equivalence and mere implication produce in certain circumstances the same result, why am I obliged to the weaker implication, merely because no stronger implication is needed, even though it may be the case that the stronger implication holds? But there are more detailed arguments.

(a) the $\epsilon\iota\mu\alpha\tau\epsilon\varsigma \dots \epsilon\iota\sigma\tau\epsilon\mu\epsilon\iota$ construction on which Stahl puts so much weight is as much at home in rhetoric and dialectic as in mathematics. It is a sort of antithesis.

(b) $\epsilon\iota\kappa\omicron\tau\omega\varsigma$ at 89 d 5 is not strong enough to imply that Socrates is

less sure of the weight of the mere implication argument than he is of the weight of the equivalence argument. It softens and expresses the reluctance Socrates feels before performing a disagreeable demolition job. It asks for the interlocutor's surveillance of the whole succeeding argument, and not just of the hypothetical inference. The warrant 'if p, then q' receives no attention. Meno (and Taylor¹) immediately assume Socrates is talking about fact: Are there really no teachers of virtue?

(c) In order to make I b he brings together statements at 98 d 12 and 99 a 7 (p.416 diese Zeile gehört gedanklich zu 98 d 12). But 98 d 12 is the summary of 89 c - if $p \rightarrow q$; $p, \therefore q$ which is rejected by Socrates and accepted by Meno; while 99 a 7 is a report of the outcome of the later argument, namely that it was not teachable and so it is not knowledge.

(d) If I b is the outcome of careless expression - or rather if there is no normal form for an equivalence, can we be sure that III b is a correction of III to warrant a conclusion of - q? If III b is a correction, and the remainder of the passage is a summary of the course of the argument, then Plato is being disingenuous in his summing up - for Meno and he did not agree that III was an equivalence (*ἔδοξεν; ὡς ποδογῆκαμεν*). This sort of sharp practice detracts from methodological clarity. The purpose of the passage is diverted to convict Socrates, not of a mistake, but of a lie. In the Protagoras such a 'lie' occurs - but only, one feels, because Protagoras misses the point.

(e) The ~~anomalous~~ ^{anomalous} conversion at 89 d 5 is sufficiently explained if we remember that it is not part of the earlier argument, but an investigation of whether or not there are teachers of virtue. For this purpose, it is better to have the teachers of virtue in the protasis. Also it would be

1. Taylor II p.140.

embarrassing to have to argue for the proposition "Virtue is not knowledge" which is the alternative, in the circumstances, to arguing that "Virtue is not knowledge" via the proposition that "there are no teachers of virtue". Socrates has telescoped rather than stumbled here.

Stahl (421) also draws support from similarities to the Meno that he has been able to find in the Phaedo. He finds an example at 70 c ff: that q - that our souls can be in Hades before we are born and after - depends on p - that our souls come from nowhere else but the dead; q is proved (70d 7 ff). Now the relation p, q is stated as an equivalence, but the practical consequence drawn is mere implication - quite correctly. For as the objections of Cebes later shows p and q are not equivalent. But the only ground for considering p, q as an expressed equivalence is Stahl's dubious translation of 70 d 4:

εἴτε μὴ ᾖ τοῦτο, ἂν ἄλλου ἢ τοῦ θεοῦ λόγου.

as "Wenn die Bedingung nicht erfüllt ist, kommt etwas anderes herans."

Hackforth² translates correctly as if it is the outcome of the argument that matters: "But if that is not so, we shall need another argument." Stahl also misses his εἴκοις at 70 b 7. Nor does this proof play much rôle in the rest of the Phaedo: the principle 'from opposites come opposites' surfaces at 103 a 4 ff, but the proof of immortality here given is not used again. It seems in any case to be a merely dialectical proof from agreement.³ The drawing of consequences is not part of the method.

However the remaining proofs of the Phaedo do seem to be linked with each other, and to depend each of them on the theory of Forms. At 91 e ff he points out correctly that a distinction is made between arguments accepted

διὰ τῶν εἰρηκῶν and those accepted διὰ σταθερῶς ἡγίας ἀποδείξεως

But he does not point out that no hypothetical method is in question here.

The relation between the prior hypothesis and the later hypotheses is simply that Socrates clashes with p but q does not. Now Socrates "the soul is a harmony" is later called a hypothesis (93 c) which commits the holder to

2. Phaedo p.59

3. 72 a 9 f.

certain consequences, which we examine. But our examination of the consequences is not necessarily the part of the method of hypothesis which Plato has borrowed from mathematics. There are some parallels for the distinction between eikos and geometry, but none of them add mention of the deduction of consequences. What seems to be in point is the deduction of consequences which are correctly deduced from the hypothesis. As, of course, one cannot deduce from one hypothesis, this comes down to making a choice between the hypothesis and other "hypothesis". For instance at Theaetetus 162 e Protagoras says:

ἀπόδειξιν δὲ καὶ ἀνάγκην οὐδ' ἔντινον ἄγετε ἀλλὰ
τῷ εἰκότι χρῆσθε, ὅς ἐστι ἐθέλοντα Θεόδωρος ἢ ἄλλος ὡς
τῶν γεωμετρῶν χρώμενος γεωμετερεῖν, ἀξίος οὐδ'
ἐνὸς μόνου ἔν εἴη 4

But the passage is not followed by any change in Socrates' tactics if the change is not dialectical. From shocking Theaetetus we move to

dialectical questions - 163 a *ἤδη δὲ σκοπιῶμεν*
εἰ ἄρα ἐστὶν ἐπιστήμη τε καὶ αἰσθησις τῶτον ἢ ἕτερον

After a succession of consequences Protagoras announces that Socrates is not sticking the correct consequences of his position.⁵ Eikos is rhetorical, hypothesis is mathematical. It is not the elenchus (= drawing of consequences) which is mathematical but sticking to correct consequences. Nor is there a shadow of evidence that genuine consequences are consequences by reciprocal or any other strict implication. To know the genuine consequence one must examine the arche.

Mere pointing out the clash of the two hypothesis is enough to convince. So unless Simmias like Meno does not know the mathematical method of hypothesis, this was all mathematics would require.⁵ But Socrates does draw consequences - from the hypothesis to be elenchated. The substance of the elenchus is

4. cf. Philebus 58 d 7; Timaeus passim.

5. Theaetetus 166 f.

significant - it is the test of "more of less", and, second, it claims that an object cannot be affected ^{was} indifferent in the same respect at the same time - though the statement of this is not as full as it is in the Republic.⁶ Both these tests are dialectical and part of the techne of arguments (τέχνη τῶν λόγων).

The second thing that Stahl says about the argument is also important for us. He points out that Plato does not draw a full conclusion. For full Modus Tollens leads us from the failure of the consequent hypothesis to the failure of the original hypothesis: p.425: "Platon sagt aber nirgends, dass man mit Recht von nunmehr als falsch erwiesenen Hypothese auf die Falschheit ihrer ursprünglich zur Diskussion stehenden Konsequenz (die Seele ist sterblich) schliessen kann, obgleich er das unter Berufung auf die von ihm sooft konstatierte Regel der "Äquivalenz (\gg wenn nicht p, dann nicht q \ll) gut hatte hinzufügen können. Damit bestätigt sich unsere Erkenntnis, dass die theoretische Forderung nach wechselseitiger Implikation für die Praxis Platons ohne Bedeutung bleibt."

Stahl's instincts are right. It is possible under Modus Tollens to move from the first unfortunate consequence to the invalidation of the original proposition. Plato does not do this. So much of Plato's time is taken up with giving examples of where Modus Tollens or reductio ad absurdum should not run (as in sophistical consequences) that he can hardly have been unaware of the fact of M.T. But if linked hypotheses are introduced to support an argument, then the "higher" the hypothesis the more difficult it is for anything resembling M.T. to touch it. Proper understanding of a higher hypothesis should guarantee us, we suggest, against sudden dialectical reversals. We suggest that elenchus is in the service of hypothesis, rather than hypothesis in the service of elenchus, and that the hypothesis linked to form a system - even if a changing, floating system of doctrine. But Stahl has failed to prove a Satzlogik; and with it fails attempts to show that Plato is directly interested in the relation between

6. cf. Robinson, Plato's separation of Reason and Desire: Phronesis 1971, 38-48.

each link of the chain as a standard relation. Such "standard relations" are the connectives of modern logic $V \rightarrow$ etc. Instead Plato's *Τέχνη τῶν λόγων* was an investigation about each link - about good, about sameness etc - and there is no link that does not depend on some concept or other from this "exhalted" group. We have seen in the Gorgias and Meno "Socratic" chains of thought". The links are not fixed, immutably forged, but the same ones do tend to crop up again and again. The study of the chains does not seem to take the form of a Satzlogik but of Prinzipienlehre.^P To the notion of chain the notion of hypothesis added divisibility. Parts of a chain can be isolated, at one end the separated chain is a hypothesis and the other a consequence. The separated chain can always be reattached to the main chain. Instead of all Socrates' beliefs being interconnected and put at risk in each argument - which is the sort of impression we get from the Gorgias (509) - it may be that some of Socrates' beliefs are more intimately connected with each other than other; of his beliefs.

"To sum up: Plato does not have an ideal of arithmetical or geometrical proof for philosophy, nor do these two disciplines somehow determine rationality or goodness"⁷. What a hypothesis is, and how to deal with it, is defined and developed in dialectical terms. The mathematical comparison makes the role of hypothesis in dialectic clearer; but the role of the hypothesis is not copied from mathematics. We may suspect Socrates of always manipulating dialectic in the interests of positive ethical beliefs. Hypothesis is one way of replacing the moral direction given by Socrates 'the man behind the argument'. A hypothetical argument says something, even if it does not say as much as it ought.

The difference between a dialectical hypothesis and a mathematical hypothesis is that a dialectical hypothesis is someone's belief, and therefore bears contradiction. A mathematical hypothesis is true and does not bear

7. Gosling 1973 p.118.

contradiction. Plato will show that even mathematical hypotheses may be merely expressions of beliefs.

IV

Hypothesis in the Last Argument of the Phaedo.

We have seen no reason to suppose that a hypothesis ^{by its nature} is a tentative thing, or that it is subject to correction, or that its "consequences" are related to it in a logically specifiable manner, or that it is put forward to be demolished. There is no reason, therefore, to assume that the Phaedo descriptions of the hypothetical method should be read in any of these senses, and no evidence in the Phaedo to compel such an assumption. The uncertainties of the argument are no more than is incidental to all mortal argument (107b), but the hypothetical method is not chosen to express these uncertainties. It is the best sort of argument available. When Socrates declares at 100a that he hypothesises, the strongest argument or logos that he knows, the reader's mind should revert to 92 d 6, where Simmias says that the doctrine that soul is a harmony has been presented to him only with speciously reasoned argument, but the anamnesis logos was argued by means of (*διδ*) a hypothesis worthy of acceptance. Hypothesis is contrasted with eikos. No word is said about the proper form of a hypothetical method, only of the credibility of the hypothesis. So at 100 b Socrates hypothesises the Forms - that is, those things or propositions of which he is most certain. Now he does not argue for them, yet they are supposed to save the young dialectician from misologia.¹ Classically the misologia is induced by reversal of opinions. Bluck translates 90 b f as follows: "you may believe that an argument is true without being an expert in arguments, and then a little later on decide that the argument is false - sometimes it is, and sometimes it isn't - and again the same happens with another and yet another." You will end by believing "that all things are simply carried this way and that exactly as in the Euripus, and never remain fixed for a single moment." Evidently the method of hypothesis, or indeed

1. 89 d ff.

the hypothesis of the Forms is not enough to halt this process. For exactly this has happened at 88 c ff - the group are despondent because they have prematurely deserted their earlier arguments in face of attack by other logoi. Which logos should a man choose among these always changing logoi? Now suppose, Phaedo," says Socrates, "that there should be a true and reliable argument, one that could be comprehended, but that a man had come up against arguments like these present ones which sometimes seem true and at other times false. Wouldn't it be a pity if the man finally in his distress gladly transferred the blame for himself to the arguments ..."² The arguments to be presented later are special, ~~and~~ not special because they are hypothetical, but, as we shall see, because the hypothesis are properly handled. In these circumstances a logos which they have had all the time³ will be seen to be the same every time and adequate to new challenges. Plato does not claim credence for the last argument because it is in correct form, but because it is the best deduction he can make from a premiss he considers to be true (though, of course, he admits it requires investigation). The essential thing is to make sure that the good logos does not lose its virtue in the course of deduction and dialectic. This approach should remove the astonishment Bluck feels that "100A should be left virtually as a statement of the obvious".⁴

Opinion is divided on whether the passage is epistemological or methodological.⁵ But we may doubt whether this is a real division. The substantial issue is the assimilation of the Phaedo to the Republic; but this will not save us from the difficulties of the Phaedo since the assimilators go on to explain the difficulties the Republic by reference to the Phaedo. It is enough if our explanations of Phaedo are not inconsistent

2. 90c 8 ff. Bluck.

3. or at least 76 d 7 f; 78 c 10 f; 92 a; 100 b; 107 b 5.

4. Bluck. Phronesis II p.23. (ἐκδοσεως in the Phaedo and Platonic dialectic p.21-31).

5. Robinson I p.138 cf. Cherniss 1947 p.141.

without explanation of the Rp. A more important line of division runs between those who think of the Phaedo method in logical terms⁶, those who think of it in dialectical terms and those who think of it in substantive terms⁸. Those who think of it in substantive terms as being about the handling of ideas, make 'relevance to the context' their main platform. Plato is looking in logoi for a second string to his bow (δεύτερος ἱπός). Hackforth refers to Goodrich C.R. XVII-XVIII which effectively de-metaphysicises the passage; and he points out "The latter logos (i.e. 100 A4) evidently means a proportion which someone lays down or postulates as the foundation of an argument; but in the earlier place (100 A1) logoi seem to be arguments themselves, trains or processes of ratiocination; and the contrast there drawn is between observing physical objects (αἰσθητὰ) and constricting arguments as alternative methods of studying reality".⁹ Bluck admits that even notions can be propositions, though we might prefer to call them statements; but seems to me to produce no cogent reason why hypothesis at 101d is not the logos at 100 A.¹⁰ Bluck is in any case obsessed with the idea that a hypothesis is provisional, for which notion there is no evidence. Those who think of the method in logical terms must face Robinson's difficulty: if 'accord' means consistent with at a 100A it is "rash and unwarrantable"; if 'accord' means "is deducible from", it is impossible to believe "and there seems to be no third interpretation".¹¹ Sayre and Stahl try to save a 'logical' sense, the latter according to a method he has discovered in earlier works and we did not, the former by claiming that both interpretations are logically satisfactory and settling the matter for "convertible propositions".¹² But Sayre shows no trace of philological sophistication.¹³ The extreme form of the dialectical treatment is represented by Huby¹³. She says the passage 99D-102A is "an

6. e.g. Robinson op.cit; Sayre 1969 p.29 ff; Stahl 1960 p.428 ff; Ross, Plato's Theory of Ideas p. : Taylor II p.139.

7. e.g. Murphy 1942 p.120; Huby 1959 p.12f. Hackforth's Phaedo p.139 f; Sprague R.K. Hermes 1969 p.632-5.

8. e.g. Bluck Phronesis 1957 p.21-31; Taylor II p.203.

9. Hackforth op.cit. p.138.

10. Bluck 1957 p.21 f.

11. Robinson I p.126; 7.

12. pp.19-28.

13. e.g. p.46 n.59.

13. HUBY, P. Phronesis 1959 p.14.

affirmation of certain quite elementary principles of psychological as much as of methodological importance. These Plato believed were needed by young men who had to deal with sophistic tricks of argument." She says too that the only point in clinging to the hypothesis is "nothing more than a tactical move on the psychological level and is in fact what Socrates himself did at 95e. "On the meaning of 'seeing whether results accord' she inclines to Robinson. Those who understand the passage dialectically, as we shall see, must defend their interpretation from the charge of triviality. Why does Plato see fit to make such a fuss? It is not easy to find an innovation; and Stenzel said plainly of 100a: "no new procedure but the normal one which Socrates follows elsewhere."¹⁴

We claim that 100A+101cd refer to the interrelation of thinking and dialectic. The logic of the affair is hidden in thinking and not explained to us at this point: we get instead instructions on how to bring 'logic', or what we really think, to bear on dialectic. An argument is not to be given up prematurely, that is to say before it has been validly disproven. Now it is obvious that the horror of τὸ ἐναντία εἰδέναι λέγειν was not something invented by Plato, but part of the stock in trade of the sophists.¹⁵ Now Plato's main method of describing sophistical argument is dramatic. The thinker is in a special situation. Whatever he does in that situation is going to be turned against him by an interlocutor or questioner. He goes into the debate as into a game of blindman's buff. In the circumstances he needs caution.¹⁶ Anything he says will be used in evidence against him.¹⁷ Danger comes in the shape of the questions that he is asked: it is only secondarily and derivatively that the danger is felt to lie in the statement he makes himself. The final argument of the Phaedo is possible only after the danger of premature elenchus has been eliminated. The true prophylaxis is the subsequent examination of the nature of opposites¹⁸ which reveals the true extent of an opposition. In order to reach this point, the current,

14. Stenzel-Allen p.7.
15. Euthyd. 293 e?; Ptgs.339 b 5f; Theaet 155B; Laches 195c 196 b.
16. Ptgs.351 d; 335 a.
17. Laches 187 e 6 ff; Meno 80.
18. 103 c 7 ff.

sophistical doctrine of self-contradiction must be neutralised. The misgivings scholars have felt about the meaning of *sumphonein* at 100 a and 101 d may be partly misplaced. For those passage is probably not discussing the relation between proposition and proposition, statement and statement positively, but responding to a challenge, by the interlocutor, that the speaker has contradicted himself.

The first and most important recommendation is at 100a:

ἔτιθέμενος ἐκείνοτα λόγον ὃν ἂν κρίνω ἑρρωμενέστατον
 εἶναι, ὃ μὲν ἂν μοι δοκῇ τούτῳ συμφωνεῖν πύμῃ, ὥς
 ἀληθὴ εἶναι καὶ περὶ αἰτίας ... εἰ δ' ἂν μὴ ὥς οὐκ ἀληθὴ.

We summarise the movement of thought: "I choose the logos which I think most robust and then I posit what seems to me to chime with it as true, and vice versa. By way of example take my treatment of the logoi: 'there is beauty by itself', or 'by beautiful is everything beautiful'. The illustration falls into two parts - the choosing of the starting point and the consequences thereof. The sense of both principle and illustration¹⁹ is: "I please myself". Rather than thinking in terms of the discussion, I think in terms of its origin, the hypothesis which is my reason for being in the discussion. This hypothesis is not the disputed remark that is to be proven or disproven in the course of the dialectic, but something that underlies, or I hope underlies, the remark.

But what does he mean by "I posit what seems to me to chime with it as true, and vice versa"? The translation is deliberately vague for a more literal translation would be incorrect. Stahl says: "Der Zusammenhang zweier impositiven Verhältnis als richtig beurteilter Sätze (εἰ ἂν ἐμοὶ δοκῇ συμφωνεῖν ... πύμῃ ὥς ἀληθὴ εἶναι)" kann dem ~~meinen~~ Verstande genau so richtig erscheinen wenn beide in gleicher Weise vermeint sind; für unsern Fall kommt noch hinzu, dass das nachhinkende εἰ δ' ἂν μὴ, ὥς οὐκ ἀληθὴ ganz ähnlich dem sonst fast stereotyp zugesetzten >> Wenn nicht ..., dann nicht ... klingt - dessen

19. cf. Sayre p.14 - but the theory of Forms is only ironically an illustration.

theoretische Fundierung im mathematischen 'Äquivalenzschluss' wir in Menon-Kapitel zeigten.'

Again Stahl's instincts are right - that the positive and negative are two faces of the same ~~statement~~. Logically speaking, this should issue in an equivalence but no properties of an equivalence are used later in the discussion. Nor can the phrase just mean 'what I think chimes ... what I think does not chime', because this does not amount to a method. My 'positing' excludes something - that is to say, if I answer yes, it excludes no, and vice versa. Plato cannot abide the partly - yes, and partly - no answer, which is correct in most conversations. 'What I think chimes' commits me to answer 'what is not - x does not chime with it'. In virtue of this exclusive either ... or, positive or negative, my dialectic works.

So if I posit hypothesis A, and am about to accept a 'consequence' B. I may find in virtue of my rule that I have excluded ~~not~~ B., which may on other grounds be a completely acceptable proposition. For instance, I say 'There is beauty by itself'. I am now confronted with many sorts of beauty. An unlimited number of beauties by themselves is compatible with the statement, the statement that requires least addition is: 'there is at least one beauty'. But given our interpretation, it follows that there is only one beauty by itself. For my reply must exclude there being more than one. The function of this sort of deduction is to exclude perfectly possible true answers to a series of independent questions. I can ask: 'Is Timothy smaller by a head?' or say 'The heel makes her taller', and 'heel' and 'head' would be adequate replies to questions asking about causes. But when the replies are brought together in a single conversation they clash.

The presence of a hypothesis alters the normal course of the conversation, because answers are no longer independent of one another. Many true answers are closed to me. Hypothesising makes explicit that in virtue of which my answers are made.

Plato uses his hypothesis in a special way - as if it were one side of an antinomy. A thing which is one cannot be many and vice versa. Later in the proof he establishes the rule that opposites exclude ~~their~~ own opposites. He takes advantage of the Eleatic tradition to work out the consequences of his hypothesis, but the Eleatic element is negative - I fear attack from that quarter so I am especially cautious about admitting that what is one may be many.

τα ὀρμηθέντα however are the consequences in the sense of the remainder of the dialectic the questioner is responsible for provoking subsequent steps, and thinks in terms of what a reasonable man would accept. The answerer is probably thinking in terms of the one many antinomy. The restriction placed on the answerer that he should answer yes or no turns out to be a saving grace.

Dramatic reporting and dialectical method combine to give the impression of chain or logical consequences. We compare the Gorgias, where Socrates answers out of his head to the consternation of his interlocutor²³.

This is clearer in the sequel where the word *ὀρμηθέντα* is used for the successive steps. Commentators seem to be unanimous as far as I can see that this does not mean ~~τα~~ *τα συμβαινόντα*²⁴, but, as it were, the ripples of the stir caused by my hypothesis. These consequences are dialectical i.e. the sort of things that would be urged against a thesis. What Socrates is recommending is that the answerer should think for himself, but I doubt if he is yet telling him to do that thinking.

The same advice pervades¹⁰¹ c - e, where Mrs. Huby compares⁹⁵ *οὐδ' ὅτι σωφρονέας συχνὸν χρόνον ἐπισχῶν καὶ πρὸς ἑαυτὸν τι οὐκ ἐλπίσας*. But something more must be being said connected with the advantage of having a hypothesis, for we haven't yet been told what the advantage is. The hypothesis is useful in defending or explaining a thesis.

Many commentators²⁶ consider that the passage is mainly about rejecting arguments or statements, and sifting out what is left. Even Crombie who realises that 'Socrates is not telling us how to prove things but how to

111

prove things but how to find things out'²⁷ summarises as follows (1) First scrutinise the challenged hypothesis for inconsistencies; (2) next back it up by resting it on a 'higher' hypothesis; and (3) do not confound these stages together'²⁸. This seems back to front - we are not looking for a true hypothesis which cannot be turned into its contradiction, or will clash with another hypothesis. (cont. over page

23. Gorgias 463 d ff; Charm. 161 d ff; Laches 199 c 3. 24. Robinson I p.109; Bluck 1957 p.28; Hackforth's Phaedo p.139; Stahl op. cit. 436 etc., 25 1959 p.13 cf. also Euthydemus 283 C. 26. Ross op. cit. p.28 Stezel Allen p.7. 27. vol ii p.544. 28. vol ii p.541

Robin²⁹ is nearer the mark with: "l^o ne pas le laisser (le principe) mettre en question tant qu'on n'a pas examiné encore si les conséquences qui en découlent s'accordent ou ne s'accordent pas entre elles, 2^o... procéder semblablement en déduisant les conséquences d'un autre principe. But he still has the notion of testing by elenchus. Robinson sees clearly that "seeing whether the results accord" is not "primarily a test, in spite of its expression here"³⁰

Reinstating the discussion in its dialectical situation we get:

1. 100 c 8 - d2

An apparently innocuous, obvious proposition is put forward for your agreement. Do not accede without deliberation. Answer the new question with regard to the hypothesis, but not with regard to the new question (cf. Theaet 154 d). The new question is additional to the hypothesis.

2. 100 d 2 - 5

This is the temptation to agree too easily that your hypothesis is disproved. The attack is made directly against the hypothesis
 ἔχοντο αὐτῶν ἡς ὁποῖα which is declared to be incompatible or declared to yield a consequence (ἡ ἑξόμηνος). In these circumstances you must see whether the results that you think follow from the hypothesis agree or do not agree among themselves i.e. the very thing your opponent tried to do for you. You will do it, not as a test of the statement, but because dialectic is deduction and combination of statements. Of course if the statements do not chime, the hypothesis must be given up; but the cause of logic is not much advanced in this contingency and it is difficult to see how someone clinging to the safety of the hypothesis would be called upon to give up a statement he had been elenchating.

There is of course one element of dialectic which the above instructions

29. Phaedo L ii (Bude).

30. Robinson I p.136.

might fit, the instruction to foresee (ὑποσχεῖν), but this instruction is either tactical or refers to the ability to work out what is acceptable in the name of the hypothesis and what is not ³¹. It is an art that does not seem necessary here, because we are not interested simply in the importation of a Trojan horse premiss into the argument, but in the relation between the premiss and subsequent steps.

3. 101e. We deal immediately with ἀνασχεῖν... ἐπεὶ, for the section seems to apply to all points of the procedure. Indeed the instruction to avoid confusing arche and consequences is the only explanation for the otherwise unmotivated clause ἕως ἂν τὰ ἀπ' ἐκείνης ὀρθοῦντα σκέψαι. Before you can keep arche and consequences apart you must have both sorts of statement. If an attack is made directly on a hypothesis - then there is neither arche nor consequence, just two statements jostling i.e. sophistical, and not hypothetical, argument. Now the reason why sophists are so prodigal with contradictions and arguments is that they have the art of reconciling anything.³² Socrates does not have it, but it does seem to follow that he is more interested in reconciling arguments - i.e. getting them to remain the same, that in testing them by finding specious contradictions. If a man gives his honest opinion for arche, then he will be in no hurry to accept an elenchus. The remainder of the passage on the sophists reads like a formula.

4. 101 d 5 - e1.

It is not clear in what circumstances it is necessary to justify a hypothesis. The point surely is that in order to justify a hypothesis you need to take another hypothesis, so that you have both an arche and 'things that follow after an arche'. Your new hypothesis is as inviolable as the

31. Theaet 166 a 5.

32. 101 e 5 ff; 90 c; Theaet 154 e.

old one, but the old hypothesis itself is now in question. Rose³³ says that hypotheses are always subject to the tax of giving an account of themselves, and a pupil could question any of them. But the arche (which for him is the nature of good, that all men pursue it) has never been a hypothesis and can never be questioned. Cherniss believes that the process of "giving account" of the hypothesis is automatically part of dialectic³⁴; while Robinson believes recourse to a higher hypothesis depends on the circumstances, the adequacy of the hypothesis on the nature of the objectors' objection.³⁵ But these are questions it is not profitable to pursue since an answer to them really depends on our treatment of the Republic.³⁶

What points of the overall argument fit these specifications? It is a crippling objection to Robinson that he does not root the method in the practice of the Phaedo, which is Robin's view. Stahl admits this but does little about it, since for him 100 d 3 - e 7 is a case of hypothesis and its confirmation, securing (Sicherung) by a higher hypothesis. For injunction 1. we compare the attempted elenchus at 100 e 8 ff. 1. is essentially a repetition of 100 a, the policy which has been followed 100 c 8 - 101 c. For injunction 2. there are two sets of candidates³⁷. The first set consists of the drawing of further consequences against Simmias' objection, against the theses that virtue is teachable or that to do wrong and go unpunished is the greatest evil.³⁸ But these are rather remotely retrospective, and adequately expressed by Socrates' insistence on leaving no stone unturned. The sort of illustration for 2. is the use of the principle in the section 102 b - d. But this is a demonstration of why Socrates was right not to submit^{to} the elenchus 100 e 8 ff. For a little distinction and ingenuity makes plain what Socrates' meant -

33. Rose, L.E. *Journal of Hist. of Philosophy* 1966 (p.188-98) p.194.

34. A.J:P 1947 p.141, relying on 107 B 5-6.

35. Robinson I p.137.

36. Stahl 434; Sayre 28 ff; Robinson 138; Cherniss 141; Crombie 543 ff; Robin Lii.

37. Stahl 433; Robin XLiv, Lii.

38. Phdo 93 ff; Meno 89 d ff; Gorgias 480 ff.

καὶ ἄμα ποιδιασας, ἔδικα, ἔφη, καὶ συγγραφικῶς φερεῖν, ἀλλ' οὐκ
 ἔχει γὰρ πού ὡς λέγω

Socrates spells it out by the prosaic device of showing the respect in which a contradiction holds. This illustration supports our view of 1.

- that it avoids improper elenchus. But it does not illustrate the first half of this process, for the objection to the hypothesis is not made (unless at 100 e 8). However at 103 a 4 ff an objection is brought against a fairly hefty hypothesis - namely that nothing can become ^{FB}

not-F at the same time and in the same respect. The objector makes a fairly clear declaration of contradiction. It is the sort of objection that *confuses a man* (102 c 6), and is sophistical, and easily

dismissed with a little distinction. The episode fails to induce the sort of despondency felt at 88 c. ^{39P} The illustration of 4. is generally taken to be the call for a review of the first hypotheses in deference to the fallibility of mortal nature (107 b 4 ff). It almost follows that the deduction of consequences has played no part in strengthening our hypotheses, since what is required is a more thorough examination of the first hypotheses themselves in terms of understanding them (diaeresis).

We noticed it was diaeresis that saved the hypothesis 'Virtue is good' in the Meno. It is more difficult to find an example of 3., since the only sophistical objection is at 103 a. This objection is rebuked on the grounds that the earlier and the current argument are about different things - i.e. the two arguments must be kept apart even though the words clash. This explanation may count as keeping arche and consequences separate. But there are more subtle ways in which the Phaedo illustrates the importance of keeping arche and consequence separate. For 'Phaedo' demonstrates why answering from a hypothesis is essential to dialectic: there must be a separation between the hypothesis and the demonstrand or consequence, and ~~from~~ ^{of} hypothesis-arche ^{and} hypothesis-consequence.

39. Contrast the view of this objection *Confusion* - given by Nehamas, A; Predication and Forms of Opposites Rev.Met. 1972-3. p.462-491, p.483.

Plato has no way of proving a proposition. But some statements are manifestly truer (for whatever reason) than other statements. Some statements must always remain true - like those relating to the goodness of the good. Yet the disconcerting vicissitudes of dialectic can make even the goodness of the good seem a little the worse for wear. Dialectic in the sense of unrelated, verbal arguments, usually of a destructive tendency, does not advance knowledge or morality very much, as Plato never tired of saying (only he blamed the sophists for it). A hypothesis, however, enables you to answer a local question in virtue of a more general truth; the recursive nature of the method of hypothesis prevents the hypothesis of this more general truth into an error ~~and~~ ^{through} rigid limitations. For the hypothesis is itself true only in virtue of another hypothesis, the presence of which alters the meaning, or makes plainer and truer the meaning of the lower hypothesis. The method allows for some diplomacy between arguments - on this occasion x was proved in virtue of Y; and when not-x was proved it was in virtue of Z. But more important it enables you to make a study of arguments - not in a formal sense but in a semi-substantial sense. For certain hypotheses are more fundamental than others, and a disproof these hypotheses is a great advance towards demonstration. But the disproof is not by lining up as many gelsias as possible, but arises out of an intimate understanding of the nature of the hypothesis itself. Thus in the Theaetetus we shall see that Protagoras dismisses the various absurdities that Socrates prestidigitates out of Protagoras' own position; and when for example the arguments *of the* Heracliteans are reduced to incoherence it is ^{by} virtue of Plato's understanding of what he is pleased to call the Heraclitean arche that this demonstration is accomplished. There can be no formal by-passing of an understanding of the superior hypothesis in favour of 'deduction' of prima facie contradictions. In the Phaedo, too, it is only in virtue of the hypothesis that the argument can lengthen to the point of becoming adequate to reality: it is only in virtue of the hypothesis lying behind the specific answer that we can say the Fire causes

Fewer for the underlying statements prevent this statement from becoming paradoxical, or in Vlastos' words "x is F because it participates in Γ and Γ entails ϕ "⁴⁰. The principle is the same: dialectic must take into account what is behind the answer and fix the answer's sense.

The advantage of the present interpretation is that it eliminates the sort of mistakes that lead commentators to accuse Plato pointlessly of confusion. These crystallise in the symphonein passages, where it will not help matters merely to breath a little intentionality into modern logic and attribute the mixture to Plato, ~~but~~ ^{along with} a notion like "relevance"⁴¹ and "deduction in the presence of background assumptions."⁴² It is better to accept that the Phaedo passages require the framework of a situation, of question and answer, of a range of explicit argument so narrow that it is almost a bottle-neck in sophistical hands, for our thoughts. Those thoughts concern the nature of opposites and exclusions. In that area is the real beginning of logical procedure and it is that area which saves us from going as far as Sprague:⁴³ "The truth is that Plato is more interested in eristic than most of his interpreters have been... He had to be; he was hammering out a theory of Forms, an essentially dualistic theory at a time when the descendants of Parmenides had become experts in the sophistical defence of monism..." ... if indeed the sophists were the descendants of Parmenides! Sprague is too ad hoc, too local. Plato outlines the pretended role of contradiction in eristic or conversations in order to rescue dialectic and put it on the unsupported foundation of his own doctrines of opposition.

In the Phaedo we are at the point where Plato calls the mind into existence to redress the balance of dialectic in favour of the answerer, the justifier, the constructive. His model for these activities is sternly deductive and conceptual.

40. Reasons and Causes in the Phaedo, Vlastos 1971 p.159 (p.132-166).
But see now Nehamas' reply op. cit.

41. Stahl 429 f.

42. Robinson I p.32.

43. Hermes 1969 p.635.

We have an example of the state of dialectic at Rp. 451 b ff.

Socrates returns to a matter that might have been discussed earlier.

The place of women can only be discussed *κατ' ἐκείνην τὴν ὁρμὴν... ἥνπερ*

τὸ ἄρῶτον ὁρμήσασθαι

⁴⁴ We investigate how it behoves

us to bring up women, ignoring the inevitable laughter. The laughter is caused by consequences of a sort - women exercising naked with men; but the laughter is unjust. True consequences are more serious affairs. They are answers to questions like "is it possible for women to be given the same positions as men." (Here we remember the arguments about the diorismic force of a hypothesis). The answer to this question is given in a rather broken backed way. On the one hand ~~Soc~~rates presents a case against which is not conclusive because the imaginary interlocutor gives the Socratics pause - they have to think about what they mean (453 c 7 ff) and Glaucon asked Socrates to come up with a defence of their logos. Socrates says that he has long ~~f~~ared and foreseen (*ἡροορῶν*) such arguments against his position. The imaginary interlocutor has produced one possible argument; though Socrates has foreseen that many of the same sort are possible. If we examine the interlocutor's argument, we find it consists of the recall of a *ἁποδόχρημα* and a statement of difference. The resulting *ἁποδόχρηματα* are alleged to contradict each other.

1. Everyone should do only the work his nature suits.
2. There is a great difference between a man's nature and a woman's nature.
3. Women should do the same things as men.

The lynchpin is the nature of difference, once again. Inevitably follows the charge of eristic. For the argument depends on the unexpanded use of the word 'different'. But in order to explain this Socrates asks a question about the original hypothesis - the term is not used, but enough of the

44. 451 c 6 - 452 b 6.

associated vocabulary is used to make it plain that we are dealing with a dialectical hypothesis. However the hypothesis' "position under" is not being discussed here, which may account for the word's non-appearance.

The true place of the hypothesis is in the intention of the speaker⁴⁵.

ἡ δὲ ἐξ ἀρχῆς εἴη ... But what is required here is not a higher hypothesis, but a modification of the hypothesis. We meant, says Socrates, a difference in nature relevant to the occupation in question. Here the onus (455a δίκαιον γούρ) is thrown back on the imaginary interlocutor: let him show a profession in which the nature of men and women are relevantly different. A host of instances leap to mind. But Socrates' interlocutor cannot think of anything on this occasion - a very strange state of affairs! It is of course the 'pause' inflicted on Glaucon (453c6 f) come again on the other side. It is also artistic - mere failure to produce an example, or the production of an example, whether satisfactory or unsatisfactory, proves nothing. But Socrates now seizes the active role and leads the discussion persuasively to the correct conclusion to be drawn in the light of the hypothesis. In the end, as in most dialectic, the opponent will be made to eat his words (457 a 6 ff; 456 b 8). But the attempt of Socrates to prove his point is broken backed because so much seems to depend on persuasion. There is no normal or definitive form in which results can be stated. The interplay of role and role, person and person is still essential to the statement of the proof. At the same time, the passage shows the way in which Socratic argument can proceed from one 'small' argument to another and this is a guarantee of seriousness, coherence, genuine discussion and the genuine meeting of minds and propositions; and how this is bound up with the status of hypotheses. We notice too Plato's own diagnosis: an eristical objection is verbal only διὰ τὸ μὴ δυνάσθαι κατ'εἶδη διαρροῦμεναι τὸ λεγόμενον ἐπιτοκοῦν.

In the particular case of the argument we are dealing with, he says that

45. cf. 454 c f.

we did not investigate

ὁ πρὸς τὴν αἰδοῦσαν τὴν ἑτέραν τε καὶ τὴν αὐτὴν
φύσιν καὶ τὴν αὐτὴν φύσιν καὶ πρὸς τὴν τείνον ἀριζόμενα
τότε 46.

46.

There is no reason for supposing that the passage refers to the theory of Forms, though it does carry the suggestion that there are many types of difference - which are not categorised simply because of the multiplicity of the task. For it supposes that there is a type of relation of difference of which one thing can be said, and another type of which something else must be said; and our understanding of the statement under review depends on our knowledge of which type ...

Our exegesis however is neither clear nor certain. It is suggested here that 454 b 7/454 a 6 are indications of the type of study Plato conceived the *technē* of *logoi* to be. Thus, when Socrates asks his interlocutor to name a pursuit for which women are unsuited because they are women, this could be taken as a request for the fulfilment of a necessary condition of the hypothesis that the nature of women is different from the nature of men with respect to pursuits. But I do not see that Plato is concerned with the type of implication holding between statement and statement. He hopes the analysis of the statement itself will make that implication obvious. Our section of the *Rp.* has not been concerned with explaining or justifying a hypothesis, but simply with showing its usefulness in preserving arguments. The same sort of pattern - scandalous attack, followed by learned defence - is common in the *Theaetetus*. But in the *Theaetetus*, as a subsequent chapter will show, an attempt is made to get at the *archē* of an opponent's position.

First we must learn more about the notion of *archē* from the *Republic*.

But we must note that Plato has nowhere said that the method of hypothesis is the method of dialectic par excellence. His mention of it is usually linked to a mathematician whose esteem he wants to win: a dialectical proof is accordingly *cash*ed out in mathematical words, which are intended to make dialectic easier to understand. The *arche*, on the other hand, is the method of dialectic par excellence. The emphasis on the word 'hypothesis' in the *Phaedo* may be entirely due to the weighty presence of mathematicians.⁴⁷

47. Remarks similar to our remarks on 45 1 ff can be made on 437 ff the 'hypothesising' of the so-called Law of non-Contradiction. Contrast Stahl p. 438 ff.

V

Dialectic and other Sciences: the Republic

"It is hardly too much to say that Plato, at the height of his powers, never wasted a word; whereas many readers of Book VII must have been troubled by an impression which the commentators do nothing to remove, that dialectic is described over and over again for no clear reason. ¹Cornford's Solution is that in Book VII two types of education are being described concurrently - the mathematical and the dialectical. For him 534 bd (hereinafter called B) is too dialectical in its vocabulary to fit the preceding mathematical methods. It was natural therefore to claim that the distinction applied to subject matter: mathematical methods apply to mathematics and dialectical methods to morality (p.77 f). For Hackforth² 533 C-D (i.e. also B) is equivalent to 511 B and its context (hereinafter called A): he says they "agree in their account of the ascent to the Idea of Good as the method of Dialectic" (p.8). If the idea of good is left unexamined, then our hypotheses are left fragile and unexamined. Hackforth points out that Plato's description of the synoptic dialectician is couched in the language of moral dialectic, but cannot be restricted to the moral sphere, since it envisages the same sort of general teleological explanation as at Phaedo 98a. Cherniss³ comes out strongly on the side of those who think Plato subordinated mathematics to dialectic (422 f). He quotes a passage from the Euthydemus in which recommends that mathematicians hand over their discussion to dialecticians⁴ so that the dialectician can teach them how to use their discovery. However the Euthydemus does not mean that dialecticians have any mathematical competence, or that mathematical proofs require to be based in dialectic; but simply as generals hand over

1. Cornford (Allen) p.61.

2. C.Q. 1942 p.1-9.

3. Rev.Met.1951 pp.

4. Euthyd. 290 c.

cities to the civil arm when the city is reduced. The Euthydemus also disparages the diagrammata which Cherniss comments on as follows: "Even the attitude towards geometrical construction revealed in this passage was never altered by Plato - so far as there is any evidence to show". For him the methods of mathematics are inevitably inferior to those of dialectic, because of the method of proof and subject matter (p.424). Cross and Woosley are among those who agree: "(Plato's) view then would be that though the objects about which the geometrician is thinking are intelligible objects and not the sensible diagrams he uses, he still cannot deduce the properties of these objects without constructions in space ..." (239)⁵. Stenzel claimed that Plato envisaged an ~~extension~~ ^{extension} of mathematics.⁶ Robinson⁷ waters this down to: "He seems to hope for nothing short of deducing the whole of knowledge from his single beginning, a goal which now appears infinitely removed." Taylor⁸ (C.C.W.) insists that mathematics is to be brought under a moral jurisdiction: "Plato appears to think that it is true that all the radii of a circle are equal because that is best i.e. because while there might be circles with unequal radii, that would not be such a good state for things to be in."

Commentators are agreed, then, that dialectic is superior to mathematics, but they are not agreed on how ~~for~~ mathematics can be made dependent on dialectic. Of say Taylor's solution Sayre⁹ says (without adverting specifically to Taylor): "I see no way in which the "notion" of the Good or of any other Form could serve as a hypothesis from which consequences can follow and conclusions be deduced." But there seems to be agreement that the charge against the mathematician is that he cannot give a logos, though what the gravamen of this charge may be is disputed. The division of opinion seems to fall into three vague and very informal groups:

5. Plato's Republic 1964.

6. cited Robinson I p.168.

7. op.cit. p.169.

8. Philosophical Quarterly 1967 p.193-203.

9. 1970 p.45 n.51.

(a) There are those like Crombie¹⁰ and Mills¹¹ who maintain that mathematics cannot give a sufficient account of its own objects. Crombie (p.85): "The entities of mathematics are not pure principles, they are embodiments of such principles." After explaining that a pure circle is a concept and not a mere postulation (for all entities of mathematics are postulations), Mills says lucidly (p.158): "This argument - that since the Forms are presupposed in the positing of "hypotheses" they cannot themselves be posited "hypotheses" (his italics) - leads Plato to the conclusion that they are clearly non-hypothetical." So also Gosling¹² when he claims the meaning is that mathematicians, through not grasping a conceptual nature do not grasp the significance of their hypotheses for other disciplines. I take this to mean that mathematicians do not sufficiently grasp the notion of equivalence; therefore they use it hypothetically rather than dialectically or in its pure form. This group emphasises that mathematical objects are special cases of concepts; and somehow oppose "postulations" (as they call hypotheses) to the concepts behind the postulations.

(b) The second group - Hackforth, Taylor (C:C:W)(8, 13) Burnet's 'teleological algebra' (1914 p.230). We can identify the group by their belief that it is valid to ask mathematics non-mathematical questions - questions the meaning of which is usually derived from non-mathematical subject matter. They might be said to differ from (a) in that they are not opposed to something like a series of statements leading to the good. But the boundary between (a) and (b) is fluid. Murphy¹⁴ summarises best. He believes both in the role of the good (p.182) and also (178) that once mathematicians have answered the question "what is the number one" (as they surely do at 526 b) " there are further questions to be asked: is the figure so defined a sensible or intelli-

10. vol.ii 85.

11. Mills. Durham University Journal 1970 p.152-159.

12. 1973 p.114.

13. Mind 1969 Forms as Causes in the Phaedo. p.45-59; 52 f; cf. Burge, E Phronesis 1971 p.1-14 Ideas as action in the Phaedo.

14. 1952. Introd. to Plato's Republic.

gible object ... is it individual or universal, real or fictitious, changeable or unchanging? All these are subforms of the question *τὰ ἔστιν τὰ σχήματα* and belong to dialectic rather than mathematics."

(c) The third group consists of those who believe Plato was making practical criticisms of mathematics. Cornford finds an adumbration of Analysis and Synthesis; Sayre (44) says "(Plato) most likely ... illustrates a propositional relationship in terms of which the geometer is intrinsically unable to give an account of the hypotheses he initially accepts as true. If two propositions imply each other they are equivalent, and neither can serve as an explanation or account of the other. Thus 'this man is married' in no sense explains or is explained by 'this man has a wife'". R.M.Hare¹⁵ suggested that Plato emphasises in the Line and elsewhere the role of adequate definition. "If we wish to know what it is to be a circle we have to find out what it is to be a good or perfect circle" (p.36). Taylor (above) has largely rebutted Hare's suggestion. He points out that the importance of definition is frequently mentioned in the accounts of contemporary mathematics and generally attributed to the Pythagoreans (p.201)⁸. Gulley¹⁶ claims that "the inferiority of contemporary mathematics to dialectic appears to have been largely eradicated from the method of the mathematical sciences described in 525 a ff. The 'eternally real' is now studied without reliance on sensible observation, and if studied with a systematic thoroughness which will obviously demand an extensive use of that type of analysis which the Line represented as the exclusive mark of dialectic. "Gulley then claims that reformed mathematics is subordinate only in the sense that all systems are part of a larger unified theory.

15. Plato and the Mathematicians, (ed. Barnbrough 1965) p.21-38.

16. 1969 p.58.

We claim that Cornford (p.61) is right to draw attention to the difference between A and B; but that the difference is largely accounted for by the reform of mathematics noticed by Gulley. However, the reform of mathematics in question in the Republic is not axiomatisation¹⁶ but a reform of "objects" and of direction. For the difference between A and B is that precisely references to the misrepresentation of the objects of mathematical study have been eliminated. These have given way to a renewed interest in the relation between arche and hypothesis. In this relation, Plato seems to find the irreducible difference between mathematical and dialectical methods. A discussion of the relation arche-hypothesis is absent from the survey of the ancillary sciences. However, it does not follow that geometry can now do its work without constructions (the reverse is the case): it just follows that the focus of Plato's interest changes during the passage. Group (c) is wrong if it merely attributes the desire to correct mathematical abuses to Plato, in the sense that intuitionism excludes infinite sets from the domain of genuine mathematics, or ^{or} Berkeley's criticism of his contemporary infinitesimal calculus. So too Plato criticises mathematical methods because they are inadequate to the ousia of the matter under mathematical discussion; but he nowhere suggests that if mathematics abandoned its hypothetical method then it would still be successful mathematics. The element of axiomatisation or explanation inside mathematics would, I suggest, be counted disguised dialectic by Plato. But those who subordinate mathematics to dialectic in other ways will admit that the subordination is ill-worked out by Plato. ~~It~~ is sketched possibly as a future programme. I claim the situation is rather worse than that - the passages dealing with hypothesis in the Republic are mainly the result of a potentially device; and the resulting subordination of mathematics to dialectic is more than Plato had bargained for. What he claims eventually is not that only dialectic can explain mathematics but that only a man who has survived a dialectical

16. cf. Gulley 1962 p.58 n.9; 1958 p.5-9; Robinson I 169; Cherniss 1951 p.414.

training is fit to defend virtue and its minions from the claws of vice. A training in mathematics will not do - not merely because of a difference in subject matter, but because of a difference in the method proper to each science. Or... a training in...

The difference between mathematics and dialectic is the crux of the matter, and the contrast of both with *apaideusia*¹⁷. This is in the nature of the divided line, in which the upper half, as it were, wears the trousers.¹⁸ Obscurity results from the multiple purpose of the line - it is both an account of relative epistemological worth and at least the upper half is meant to be translatable as straight pedagogy. The line gives us a distinction between reason and unreason, as well as between knowledge and opinion.¹⁹ It has also been taken as a statement of ontological doctrine;²⁰ but though the distinction between the Upper and Lower half of the Line is one of ontological category, it is not clear that this is true of the categories of the Upper Half. But even a minimising interpretation leaves us quite clear that mathematics and dialectic are distinguished in respect of method. Plato's 'distinction of method' is generally agreed to be double.

Section A: The section says that mathematics works through hypotheses which mathematicians use as though they know; for starting from them they deduce their conclusions, but they do not explain the hypotheses. Now whether these hypotheses are existence propositions, concepts, or definitions does not concern us here. The most recent treatment claims that, notwithstanding the phrases (*ἐπὶ ὁρίσμεναι* and direct object), the hypothesis is a proposition²¹. For whichever they are they are not the technical "hypotheses" of mathematics which we suggested means something like "theorems", but something rather more basic, like sorts of angles, sorts of triangles and the like. In other words, the demand for an *arche* has already been

17. Murphy 1951 p.163.

18. Fergusson 1921; 1922; 1934; Murphy 1932; Raven 1953; Hamlyn 1957; Malcom 1962; Nettleship: Lectures on Plato's Republic; Stocks, CQ 1911; Ptardie 1936 p.55 f; Cooper, N.1966; Tanner CQ 1970.

19. esp. Raven p.30. 20. e.g. Ross p.

21. Taylor, C.C.W. 1967 195; cf. Stahl 440 ff.

made, but the beginnings of mathematics are for some reason not suitably described as ἀρχαί. The clue is that they enter mathematics without

apology or explanation because they are allegedly clear to everyone. For

this reason, they are made the bases of mathematical proofs (ποιησόμενοι
ὑποθέσεις ἀπ' αὐτῶν); from then they reason. But this is a dialectical
characterisation of mathematics; and not even the champions of the

"mathematical method of analysis" find that the circularity noticed in

the passage is a reference to analysis-synthesis.²² A situation in

dialectic is envisaged, as the vocabulary shows: ὑποθέσεις, διεξιόντες τοὺς
λόγους; ὁμοιογενήτως (ὡς ὁμοιογένεια 533 c may be consistently

as Robinson p.148, or 'a series of consistent steps' Cornford. I prefer

to take it as a pregnant or punning use); ὁρμάω; ὡς εἰδότες;

οὐδὲνα λόγον διδόναι. The description of dialectic (511 b c) is almost
exactly parallel, but with this difference - that in a dialectical context

the words acquire a more just, more etymologically piquant meaning e.g.

ὑποθέσεις, ὁρμαί, τελευτῶν, εἶδη; προσχρᾶσθαι
(προσχρᾶσθαι; τοῖς ὁρμώμενοις εἶδеси 510 d 5).

The odd man out is ἀνυπόθετον - which we suddenly realise can

be paired with ἀδελφά (510 b 5). This, like συγγενής, can

mean belonging to the same ontological or other category²³. This symmetry

emphasises the point made by Cherniss²⁴ and Rose²⁵, that the unhypothesis-

hypothesis is qualitatively different from a hypothesis. Cherniss translates

as "not resting under something else to which it is a stepping stone." It

is not a question of the survival and hardening of hypotheses. Stahl makes

the point that the demand for an Unhypothesis is tantamount to exceeding the
hypothetical method.²⁶ The identification or qualifications of the

Unhypothesis is a mystery - but it is the main point of the Republic

comparison of the two disciplines.

22. Stahl 444f; Sayre 49f.

23. cf. Tigner, S., Phronesis 1971.

24. 1947 A.J.P. p.144.

25. 1966 p.188, 194.

26. 1960 p.448.

But there is a second element which is typically introduced by *προσγράψαι*. This element is the so-called *εἰκὼν*. The *εἰκὼν* denotes objects of the mathematical world. It is also a thing in the real world - a diagram or a model (*πλάττονσιν τε καὶ γράφουσιν*) - the point is the same whether a mathematician draws three figures, or points to three apples already on the table in order to "illustrate" a set of three. Now it is clear that the mathematician does not say or is in any danger of believing, that one apple is one (511 a1 - 526 b 1-3): he is quite clear that he is only using things to another purpose. Plato does not think that the use of 'things' is the mathematician's fatal flaw. He may think that the use of 'things' to denote mathematical things leads to laziness; but though several passages show a connection between the use of hypothesis and failure to reach the arche (510 b 415; 510 c; 511 b 516; 511 d 1/2), only one passage connects the use of visible objects with a radical failure of mathematics (527). Cherniss (p424) glosses as follows: "The contradiction between the language and purpose of the science (Plato) represents as something that all geometers will admit; and when he calls their language ludicrous he says in the same breath that it is unavoidable. Far from pronouncing an interdiction on the problems of construction, he recommends at Rp.530 B, that astronomy be pursued as geometry is, by the use of problems." To Cherniss' passage we may add Theaetetus 165 where Theodorus excuses himself from further argument, because he early left *ψιδὸι λόγοι* for geometry. (Campbell's²⁷ note ad loc shows that *ψιδὸι λόγοι* are 'bare' words. The root notion seems to be that of 'pure' against 'less pure'. In that sense the truer parallel Politicus 299e ought to be added to Campbell's note ('unaccompanied arithmetic'). Phaedrus 262 c 8 comes near our passage:

πάντων γέ που μάλλον ὥς νῦν γε ψιδῶς πῶς λέγομεν
οὐκ ἔχοντες εἰκὼν παραδείγματα

27. Theaetetus 1883.

But it is probably unwise to argue that the Theaetetus passage means 'words without illustrative things'.)

Now Cherniss' view seems a little extreme. Plato says in fact that geometers talk about their procedure in a silly way and they do this inevitably because they speak *πρᾶξιν λέγουσιν*. With the conversion to intellectual purposes only²⁸ this foolish habit will surely disappear because *τὸ δ' ἐστὶν πρὸς τὸ πρᾶγμα γινώσκουσιν λέγουσιν*

ἐπιτηδεύοντες

(527 a 9f.) (but the fact is

... cf. 527 d 6). The passage reminds one of Aristotle's anxious demonstrations that a construction used as proof is prior in noesis.²⁹ So at 531 c he says of harmonicians: "they do not rise to the level of formulating problems and inquiring which numbers are inherently consonant and which are not for what reasons. Just as astronomy is taken back to geometry, so acoustics is taken back to arithmetic. Taking a hint from the Timaeus we might say that the further we depart from arithmetic the more irrational our subject matter becomes. But there is no attack on the subject matter of arithmetic - merely on the mistaken affirmation that any thing is one. What

makes the ordinary arithmetician inferior is his use of arithmetic *βυλῆς καὶ ἀριθμοῦ χάριν*

525 c 3. If however arithmetic is

done for another purpose, what is there against the science? We are given no answer in the Republic, where the existence and status of mathematics can be read more by way of inference than in the text. But it is possible to use four apples to represent four, or to treat a triangle as if in certain respects it were the triangle. This I think is what Plato means

when he complains of the use of *εἰκόνας*, and I think too that he

recommends harmonicians and astronomers to treat sensible occurrences as if they were *εἰκόνας*. His reasons for this are pedagogical and historical: it

trains the mind, and it is what the contemporary state of astronomy needed.³¹

Physical observations very rarely produce the sweeping simple movements which are the hallmark of a good theory in astronomy. Commentators point out that

28. 523 f; 527 b 9; 527 c 3!

29. cf. Ross p.48 f. It requires proof that Aristotle is 1. answering Plato 2. justly here.

Plato is using picturesque and rhetorical exaggeration; but "exaggeration" does not explain the points at issue - why Plato ^{does} dislike eikones so much, and are they inevitably part of each subject. Why for example is astronomy without observation of the heavenly bodies not simply solid geometry? Lloyd says that Plato leaves things ambiguous: are diagrams worthless, or merely imprecise?³² But he does not make clear ^{whether} ~~that~~ the eikon of geometry is the equivalent of the sighted star, or the star itself, ^{for} astronomy. This seems to be confirmed by the cryptic splendours of the Timaeus³³ where perhaps one ought to look for the answer - in the relation between eikos, eikon, techne and ananke.

Arithmetic is not about apples, geometry is not about tables' constructions; astronomy is not about the stars; and harmonics is not about the sound of screaming strings. The eikon is eliminated by being reduced to its proper place - as an image of something else, purer. But the eikon in each case is the defining characteristic of the science - ordinary astronomy is the science of stars ... but the man who will do astronomy for his mind's sake will concentrate on working out the meaning of the stars, though the sight of the stars may seduce him into thinking that he has another purpose. He will be rewarded with the vision of a more regular geometry than was possible under the old system ... but abolishing reference to stars and diagrams utterly - this is rhetorical exaggeration.

Thus the mass of the irrationality of mathematics is removed, but not according to the Republic through systematisation. But it cannot be extirpated, simply because mathematics is mathematics, or rather because geometry is about

31. Dicks, D.R. Early Greek Astronomy 1970 p.107; Lloyd G.E.R. Plato as a natural Scientist J.H.S. 1968 78-92; Shorey, P., Platonism and the History of Science, J. of the American Philosophical Society 1927 p.159-182 esp. p.171-6; A survey of experiment in Aristotle, Empedocles and Hippocrates: G.E.R. Lloyd: Experiment in early Greek Philosophy, Proc. Cantab. Philological Society 1970 pp.50-71 esp. 53 f on the limitations of the experimental approach cf. Vlastos Review of Cornford's *Principia Sapientiae* (ed Furley 1970 p.42-55) Generally e.g. Platonism or Aristotelianism Edelstein, L. Bulletin of the History of Medicine 1940 p.757-769.
32. 1968 op.cit p.78 f.
33. Lloyd op.cit. p.82 f; Witte, Bernd, Der *εἰκὼς τοῦ κόσμου* in Plato's Timaios Arch. für Gesch. der Philosophie 1964 p.1-16; Cornford, F.M. Plato's Cosmology 1937 p.164; 31.

diagrams. It has its purely rational element, but this we suspect is dialectical. The passage from A to B has said nothing about hypothesis. We suspect this is because the contrast is between pure arithmetic and its debased forms; and in B the contrast is between dialectic and mathematics.

Mathematics, then, has tumbled to the first element of correct thinking - namely the ability to make use of something only apparently real as though it were an eikon of the real. The seen world is less real for mathematics than the unseen. Mathematics is forced to this conclusion by the nature of its subject matter. This is a respect in which it resembles the dialectic of the Forms. For both disciplines deal with a single (exemplary) object that can be none of this (ostensible) objects of discourse. The mathematician talks about the "diameter itself" and the dialectician talks about "justice itself". Today we might be happier talking about 'real' or 'true diameters' and real or true justice. In consequence a mathematician deals with ousia. Just how Plato establishes that a mathematician deals with ousia is not clear. The population of the world of Forms is disputed, and possibly varies from period to period. Marks of membership are informal oneness and unseenness are among them. Numbers would be members on both those counts, but they may not be members on the same terms as justice or otherness. For us it is important only to point out that mathematics and dialectic are similar in their objects. The Upper Divided Line is a comparison, or competition, between two disciplines which closely resemble one another both in nature and in pretensions. It follows that Plato need not have set out with the idea in his head that the World of Forms included, or did not include integers. What could explain it is the similarity of mathematics and dialectic. Both deal with unseen and unitary objects. In the one case the object is what lies behind the διαγράμματα ; in the other it is what lies behind words • Plato nowhere admits in the Divided Line that dialectic does use words as eikones of real things, but it is difficult to escape the conclusion. We do not suggest returning to an older view which sees the Line

as an explication of doctrine set out at Phaedo 99 d ff. ³³ *that* words simply are eikones of reality. But in a comparison between the methods of mathematics and the methods of dialectic some reference to the role of words in dialectic is *necessary* to balance diagrammata, visual observation and the rest. 'Words' was a standard gibe against eristic; and Plato's omission of any reference to them requires explanation. We can even note the point at which misrepresentation occurs: Mathematics makes use of "seen shapes" (*ὁρωμένους εἶδεσθαι* 510 d 5); or "seen types"; rather wickedly Plato says that dialectic proceeds - hardly by means of the shapes or "types themselves", but by means of Forms (*εἶδῶν αὐτῶν* -- *εἶς εἶδῃ* 511 c 2). Someone should have reminded Socrates of just how many difficulties he had with words!

The maddening thing about mathematics was its obvious success. Encouraged by its success, mathematicians like Simmias, Cebes, Theodorus (and even Protagoras: Theaet 162e) apply their mathematical methods outside their nature science and like similarly maddening mathematicians today they drew conclusions from their use of them that the rest of us cannot quite accept. We have seen that a "hypothesis" is an advantage and not a drawback. It helps one deal with problems otherwise obscure and recalcitrant. A mathematician generally has such helpful hypotheses at hand (as he does in the Meno). Having once admitted the hypothesis we see the conclusions follow as night day with apparently no difficulties of meaning or inference. *τὸ ἐνδοξόν* the mathematician says imperturbably if A, then B. But if you start using *τὸ ἐνδοξόν* in this fashion, you reach the most deplorable conclusions; and mere demonstration of the incoherence of such "generally accepted statements" is no cure at all. We have seen that Plato's interlocutors tend to accept B, once they have granted A; and rest content. ³⁴ We have seen no evidence that Plato says: if you have accepted A, and A implies B, do not

33. Archer-Hind 2nd Ed. 1894 Phaedo p.159; 160 f; Goodrich, C.R. 1903 p.381 f; 1904 p 4 f.

34. Supra Cap. II ii C; iii.

accept B until you have survey edits consequences $B_1 \dots B_n$. For if A is true and B validly deduced, then $B_1 \dots B_n$ will be coherent. But they may not be coherent if B does not follow correctly from A, or if A itself is not known. In our Phaedo section we suggested that Plato's injunction to look at the consequences was intended to prevent us from accepting an impostor consequence B' offered us by our interlocutor as if it were B, the consequence of A. In the Rp., attention fixes on A. Is it known? B is only known to be a valid consequence of A if A is known to be true. It is only knowledge of A that can establish B and not vice versa. So arche is distinct from consequence. But is this enough? Now arche is typically dialectical. Hypothesis is typically mathematical. It is difficult not to connect it with *τάδιον ἐξαρχῆς εἶναι* and with the Phaedo injunction to examine the first hypotheses. Knowledge of A gives us knowledge of B; but knowledge of B tells us nothing about A.

The passage in which Plato contrasts maths and dialectic in Book V is at 511 b.

ἀλλὰ τῷ ὄντι διαδοθεὶς ὅσον ἐπιβάσεις τε καὶ ὀρμᾶς, εἰς μέγρι τοῦ ἀνυποθέτου εἰς τὴν τοῦ ἀντος ἀρχὴν ἵκν, ἀφ' αὐτοῦ δὲ τῆς ταύτης αὐτὸ ἐχόμενος τῶν ἐκείνων ἐχομένων οὕτως εἰς τελευτὴν καταβαίει

Cornford translates: "like a flight of steps up which it may mount all the way to something that is not hypothetical, the first principle of all; and having grasped this may turn-back..." This translation is ~~extreme~~; but it has the virtue of sharing with Plato a sense of the epistemologically apocalyptic which Robinson's more accurately ambiguous rendering lacks (149) "like steps and sallies, in order that, going as far as the unhypothesised to the beginning of everything and grasping it" (distorted by our emphases).

The analogy of a dais with a set of steps for mounting and another for descending seems to be wrong. It is in the realm of the unhypothesis that

we look for the arche. There is a discontinuity between hypothesis and arche. Mathematics is hindered by hypotheses (plural) whereas dialectic is liberated *ἐξ ὑποθέσεων* *ἰσοῖα* (singular). It looks as though dialectic breaks out of the hypothetical mould in every encounter.³⁵ It is not a matter of climbing ladders^{35a} so much as jumping off them. Similarly 'the beginning of all' could simply mean the beginning of my question propounded. The arche is the most important element in the method described here but is not properly part of the 'hypothetical' method at all. Even if the *ἐκκρόν* *τι* of the Phaedo foreshadows it, it is the Republic *first* that we get the arche's uniqueness its difference from a mere hypothesis, stated clearly. Yet where has it come from? why is it included at all?

The answer must be that the arche is included because it is the distinguishing mark of dialectic. It is the characteristic most notoriously dialectical - the repeated demand *ἐξ ἀρχῆς* *εἶπε* : yet in the dialogues we rarely find any obvious result or answer to this question. This is a weakness that Plato seems to feel more acutely in his middle period. It was also most probably a gibe against Socrates that Socrates turned into a glory. We notice the contrast between the mathematicians who argue from hypotheses, and the dialectician who begins at the arche. Now the complaint is surely not that the hypotheses of mathematics (three sorts of angle and the like) are dubious, tentative or wrong, and should therefore not be assumed: the complaint is that mathematicians say they know something which they cannot give a proof of³⁰; and the result of saying that you know a thing is that you never look beyond it. In order to discover the non-hypothetical, the mathematician must be stung by the gadfly, stunned by the electric ray ... And will it benefit him? It is difficult to see how the aporia will make him a better mathematician. Axiomatisation might alter the

35. cf. Rose 1966 p.191; 181 f.

35a. For a denial of the Up/Down metaphor in hypothesis, see Rosenmeyer, T.G. A.J.P. 1960 p.393-407 for a survey of 'spatial positions'; Robinson 1963.

36. Taylor, C.C.W. 1967 p.196 f. discusses logon didonai, give a definition V give a proof.

form and vigour of his proofs; but such a specifically mathematical benefit looks out of place. Perhaps the benefit is that he will not be misled by sophistical proofs either in mathematics or elsewhere. He may be benefited by the vision of mathematics in a larger whole, part of a greater system, as Gulley³⁷; of why circles are as they are as, Taylor believes,³⁸ or by deeper insight into the nature of equality or unity, as Mills³⁹ believes. But our only sure guide is that a mathematician fails the dialectical test of giving a logos.

Now mathematics is as universal as dialectic (522 c); its objects resemble hers; but in this one matter of giving account (= explanation, proof) a mathematician has no special training. The point cannot simply be pedagogical - that the mathematician has not been trained in the giving of logoi - but must be connected with the fact that dialectic adds the arche, before descending to a conclusion. Descent to a conclusion looks as if it is a deduction, and therefore not specially dialectical; but ascent to an arche is what dialectic is all about - and there is no hint here that dialectic is to be identified with a merely corrected form of hypothetical method. Dialectic is different ab origine because it is a method of the arche. It is possible of course that there is a particular arche like the Theory of Forms, or the Good but that is not the point made in the Line, where we have simply a contrast between mathematical (= hypothetical) procedure and dialectical (= arche) procedure. It is more than possible that Plato has here simply rephrased the hope so common in the dialogue that a man who can answer a question ἐξ ἀρχῆς will know the answer. The most intractable, most distinctive feature of dialectic, its destructiveness, is here accounted its glory; and the boast of mathematics, its hypothetical method is made by a shift in meaning a detraction. It is nowhere

37. Gulley 1962 p.58.

38. Taylor 1967 p.203.

39. Mills 1970 p.159.

said that knowledge of the arche will make a good man. Preparation - ordinary pedagogical preparation, the knowledge of fact is necessary; but dialectic will give him the additional right to claim to know it, the ability to explain and defend it, and to see it more clearly.

We can now follow the argument of B more accurately. What things have happened to mathematics since A?

- (a) Its direction has been turned: it is done for the sake of ousia.
- (b) The role of the eikon ^{is} attenuated in applied mathematics and was never obvious in arithmetic.
- (c) We have found no specific reforms in mathematics

Now B makes two criticisms:

- (a) Mathematics treats ousia hypothetically. The hypothetical method is inappropriate. The reason why it is inappropriate is that if you don't know the beginning of the matter, you don't know anything about it. This charge is made in A also (533 c 3-5 - 510 d 1-3).
- (b) B makes the further criticism that as long as the sciences of being leave their hypotheses unshuttled, unagitated ($\alpha\kappa\iota\nu\tau\omicron\iota$) ^{and} are unable to give an account of them, they will be dreamers - which is not to say of course that they will be mistaken all the time, but that they will be subject to reversals and misleading associations. The point of agitating the hypothesis is that otherwise a hypothesis is an arche faute de mieux: it begins the line of reasoning. The hypothesis is an agreement - the conclusion is an agreement - the mathematician might as well be a diplomat!

Dialectic on the other hand insists on the arche. Its method of introducing the arche is: "destroying the hypotheses"; it proceeds to the arche to confirm for itself ... This sentence is so annoying that it drove Hackforth⁴¹ to an emendation viz that $\alpha\kappa\iota\nu\tau\omicron\iota$ should be read as $\delta\iota\alpha\mu\omicron\upsilon\tau\omicron\iota$ and it drove Rose⁴² to translating $\alpha\kappa\iota\nu\tau\omicron\iota$ as denying (L.S.5. II; 4)

41. CQ 1942 p.8.

42. J.Hist.of Philosophy 1966 p.192.

which is often ~~the~~ Aristotlian meaning. 'Denying' he understands as 'deducing from other hypotheses'. Adam⁴³ and Burnet⁴⁴ assume it is a matter of consciously finding a contradiction among the consequences. This is subject to Popper's difficulty⁴⁵: that connections between successive hypotheses are psychological only. All these suggestions envisage 'hypothesis' substantively, as a statement, a conception. Robinson (161 f) argues that it is the hypothetical character that is destroyed - for all hypotheses, true and false are so treated. Cherniss⁴⁶ claims that a hypothesis is true when it is no longer a hypothesis but true and this happens when it is attached to the good.

But nowhere does Cherniss given an example of this process. Both these versions involve distinguishing between ἀναίρεσις τῶν ὑποθέσεων and κενὴ τῶν ὑποθέσεων and εἰδέναι λόγον αὐτῶν

The three phrases can be kept thoroughly apart, though it is possible of course that giving a logos implies both changing hypothesis into an arche, and arranging and rearranging one's beliefs. The phrase may refer to the self-addressing dialectical-hypothetical method of the Phaedo, but there is no way of showing that it does. Interpretation seems to be more a matter of choice than of evidence.

The hypothetical method is a method of agreements whether genuine or interim.⁴⁷ The boast of dialectic is that it attempts to eliminate the element of agreement and substitute something else more binding than mere deduction from a hypothesis; and this can only be discovered by checking i.e. abandoning the initial agreements. Techniques for doing this are various, but the most common seems to be the trick of reversing the hypothesis. The reversal shows that something more is needed. It is possible that the arche simply stands for the body of specifically dialectical knowledge in the light of which one's thinking is changed. The dialectical knowledge has two

43. 1902 Vol.II p.191 Appendix XV

44. Burnet J.Greek Philosophy 1914 p.163, 229.

45. Supra II ii E.

46. 1947 A.J.P. 145.

47. Cornford (Allen) p.64; Robinson I p.66; Rp.432 d; 504 a c.

sides - moral and technical. The dialectical arche is the exactly equivalent to the Rp.'s list of mathematical hypothesis. The picture this leaves us with is not a picture of an axiomatised system ramified into various domains - mathematics, astronomy and the like: but of one domain, dialectic, (dominated by the question of the Good?) into which any hypothesis at any stage plunges only to be broken by the unprecedented demands made upon it. The Socratic identifies the arche within the hypothesis; that in virtue of which the hypothesis ~~is~~ *is or would be true*

The second characteristic of dialectic mentioned is that it is gentle. This is very much a characteristic of person to person dialectic, and, if anything, a confirmation of any interpretation that takes *τὴν ὑποθέσιν ἀναπαύει* as simple old-fashioned dialectic transposed⁴⁸. Of course the gentleness has a new look - it now coordinates and commands the ancillary sciences, making sure that candidates are led to a vision of the good without being blinded by rough and premature disclosures. We are left to deduce that all throughout education, when our eyes turn to reality, it is some form of dialectic that so turns them.

The discovery of the arche is envisaged, we suggest, in an old-fashioned dialectical sort of way. It ~~is~~ is not merely a logical matter but an empirical one. In each discussion there is an arche (usually false) which lies at the root of several arguments and usually has to be rooted out of the interlocutor's mind. The mere finding and identification of the arche is difficult. Just as arguments are stated in personal terms and the analysis of them is the analysis of people holding them, so the discovery of the arche comes to take on an empirical air. If, as we suggest, the discovery of the arche is partly empirical, we cannot be surprised that Plato has left us no algorithm. In any case, most commentators agree that the Rp. passage is more ambitious than substantial. Sayre says (p.54) "we may assume also that he found no reason to anticipate these problems with

48. Supra Cap.I.

specific answers in a context given over to a discussion which from the beginning is not expected to 'reach the exact truth' (435 D). Anyone convinced that Plato knew precisely what the technique of the "upward way" amounted to could do no better than seek evidence of Plato's thought in his practice in the later dialogues. He will not do for such a person to limit attention to prior dialogues ... But in the later dialogues the "upward way" as such is not illustrated."

If there is a further secret in dialectic, then it is to be found not in the picture Plato has decided to give us but in the picture he has

decided not to give us: 352 e: τίς δ' ἔστιν ὁ τρόπος τῆς τοῦ διαλεκτικοῦ συνειδήσεως, καὶ κατὰ ποῖα τῇ εἰδῇ διέσται, καὶ τίνας αὖ δόξαι

It is consonant with our view that Plato gives a highly unsatisfactory picture of the dialectical man. He tells us that if a man can go through all the arguments about virtue, proving his points validly for the real world and not just as facts of language, then he will know virtue. Only a dialectical test is sufficient to show this. If on the other hand, he fails the dialectical test, then he has grasped an εἶδωλον - which is not on a level with an eikon. We are given no hint about how a practitioner of this paragon of methods comes to be so deluded. Would Plato have to admit that words are as dangerous for dialectic as dots for arithmeticians? No arithmetician ^{that} says this and only this set of dots is the Three, but an unsuccessful dialectician can say something similar about a set of words. Again it looks as if Plato is covering up.

Two points from the Cave may be admitted. In each Plato is turning to his own advantage a drawback of dialect or a current theory: 516 c "They may have had a practice of honouring and commending one another with prizes for the man who had the keenest eye for the passing shadows and the best memory for the order in which they followed or accompanied one another, so that he could make a good guess as to what was going to come next. (Cornford) Cornford says this refers to the 'empirical politician'. But he

cites Gorgias 501 a

τριβὴ καὶ ἐμπειρία μῆμν μόνον σώζομένη τοῦ
ἐωθέτος γίγνεται

This passage of the Gorgias links with the distinction between science and empeiria at 465. The distinction is what (i) it is impossible to proceed scientifically in the absence of the knowledge of the good (ii) and that the man who has techne must give an aitia related to physis. In both Gorgias and Republic we seem to be dealing with the same point. But the emphasis is not the 'empirical politician' but on a certain false theory of knowledge to be found, I suggest, at Phaedo 96 b 5.

ἐκ δὲ μνήμης καὶ δόξης λαβούσης τὸ
ἡρεμεῖν, κατὰ τὰτα γίγνεται ἐπιστήμην

As is generally admitted this theory probably originates with Alcmaeon of Croton and is dealt with elsewhere.⁴⁹ The important point is that a respectable theory receives a pejorative meaning in the Republic from its position in the argument. This is a polemical device.

The second passage is at 516 e 6 ff, of the philosopher emerging from the sunlight: "He might be required once more to deliver his opinion on those shadows, in competition with the prisoners who had never been released, while his eyesight was still dim and unsteady; and it might take some time to become used to the darkness. They would laugh at him ... " With this one has only to compare Theaet. 174. The helplessness of Socrates before the law courts is a common theme of the dialogues. That the uselessness of a sophistical education was also urged against Platonic dialectic we may

49. infra Cap.III.

infer from such passages as:

Isoc: Helena 5:

ὅτι πᾶσι κρείττον' ἐστὶ περὶ τῶν
 χρησίων ἐπιτελεῖν ὁδοῦν ἢ περὶ τῶν ἀχρησίων
 ἀκριβῶς ἐπιδείξειν

The polemical intent is obvious; and as is usual in polemics, the criticism is not justly answered.

Our main conclusions are as follows: Mathematics is criticised for the ~~in~~propriety of representing the unseen by the visible; nothing is heard of the ~~in~~propriety of representing the Forms by words. As a separate issue its method is contrasted with the method of dialectic. But the contrast of method is conducted only in terms of notorious characteristics, and no hint is given of a true criticism of mathematical method as mathematical method, or many clues to the nature of dialectic as dialectic. The extent of the subordination of mathematics to dialectic is difficult to determine: the important thing is for dialectic to emerge as uniquely qualified to deal with Good. This is not to say that a mathematician is not in some way dealing with the ~~Good~~, but not in its purest form and in the most adequate way. The Good is a "given" it is outside the scope of the line, which is a competition - a race which dialectic must win and the prize is virtue. But as we have it the competition is conducted with methods more familiar to the polemicist than to the philosopher. Solid and worthy contemporary descriptions of mathematics are turned into descriptions of the inadequacies of mathematics; while the drawbacks of dialectic become its advantages.

VI

The Theaetetus seems to be more about arche than hypothesis!¹ But there are certain similarities between the method of hypothesis and the method of 'Theaetetus'. The similarities are disguised, however, because the positions examined in depth are not the positions of Socrates, but of the interlocutor and of third parties.

152 a - 154 d.

Theaetetus' position is somehow the same as Protagoras', though Protagoras' position is of greater generality. It is very difficult to mark off the point where Protagoras' position ends and the deduction follows. Taking the particle *ἄρα* 152 c 5 as our guide we get two conclusions: appearing and perceiving are the same in Hot and Cold, and aesthesis is knowledge of Being. These conclusions are strange enough (almost an elenchus) but behind them there is a secret teaching. The teaching is given 152 d and its implications or meaning pointed out e.g. change is good, rest is bad, even in the matter of character. The distinction between being and becoming is made to rest on: either there is one thing on its own or there is not. An elenchus follows,² resting more on Theaetetus' character than anything else. The elenchus is not a really effective one because the positions are not explicit enough.

155 a - 161.

Three agreements are made about what Socrates and Theaetetus (as opposed to the experts) expect to be the case e.g. anything to which nothing is added or taken away remains the same. In answer to this position the arche of the experts is brought into view, on which everything that has gone before depends

1. Theaet. 155d; 156 a; 181 c 1; 161 c 3; 164 c etc.

2. N.B. 153e 5 *τιδὲν*

(ἡρτυται)³, that everything is in movement. Now the relevance of the arche to the problem of knowledge has to be shown at length. The arche is seen to be an expansion of the first section of the elenchus (153 e 5 - 154) - that our sensations are entirely unique to ourselves is incredible. This elenchus depends on our notion of what remaining *ἰσχυρῶς* is about; and sure enough a fresh elenchus consisting of the stock objections to a sensation - knowledge system viz. dreams and madnesses turns into an admission about sameness and likeness (159), which is the second element of the secret theory, but not acknowledged to be such. It is elicited ^{by} Theaetetus and Socrates as a part of dialectical training, and reiterated by Protagoras⁴. Conclusions are drawn: Theaetetus⁵ is delivered of a child.

161 ff - 166

An elenchus follows: its substance is that Protagoras abolishes the degrees of expertise. Protagoras (in the mouth of Socrates) protests that this is a demagogues' trick: something more worthy of mathematicians is required. Socrates obliges with:

163 a τῇ σὲ δὲ σκοπῶμεν εἰ ἅπα ἔστιν ἐπιστήμη τε καὶ διδασκαλία τούτων ἢ ἕτερον. εἰς γὰρ τούτω τοῦ πᾶς ὁ λόγος ἡμῖν ἔτενεν.

This is somehow the source of the *πολλὰ καὶ ἄτοκα*. It is posited for the duration of the argument⁵; and disproved first on the grounds of words (164 c 7) then on grounds of what is ironically called the most frightful question of all, 'can one know and not know at the same time?' which Protagoras later is quite willing to accept. Both these arguments are rather sophistical - we tried to get away from words, only to find a *heavy* old horsechestnut of a problem like knowing and not knowing. The consequences

3. 156 a.

4. 166 b 5 ff.

5. 164 e; 165 d 9.

are not seriously meant because they are not irreconcilable with Protagoras, but they are dialectical consequences which is why they are addressed to Theaetetus⁶. Theaetetus suffers the young man's malady of being flung from one opinion into the opposite opinion by dialectic⁷ whether or not the argument is in proper form. So why is the argument 163 a ff superior to the preceding arguments? For superior it must be, even if it is not quite good enough.

I suggest the answer lies at 163 a 5. Let us see if knowledge and aesthesis are the same or different. The words make a special interest of the dialectician (cf 164 c 7) but the same sort of verbal elenchus follows even for a demonstration in fact (ἐργῶν). Socrates is not protesting against words and verbal agreements as such here, because they are the only sorts of agreement possible. He forestalls a typical objection that his method is verbal only - and amusingly, by setting up an experiment, an act (ἔργον) in which the Sophist covers one of your eyes. Obviously this is not an improved answer. We deduce then that the improvement required at 162 d is that the statements of the discussion have been reduced to a more basic form - and in these basic forms, there are a few basic concepts which the dialecticians is skilled in using. Still the discussion is summed up as ἀνέκδοτα.

166-184

The discussion with Theodorus is a discussion about the respective manner of life of the Rhetorician and Philosopher. It moves to the δδξαι of men - what they actually believe viz. that they need an expert to a discussion of what life-style is more likely to produce the expert. From 177 b f it is clear that the first duty of the expert is to give and receive the logos over a long period of dialectic; but the rhetorician cannot do this. Here the rhetorician becomes confused with the man who says that reality is moving⁸ with reference to the political world. But if you have to

8. 177 c 6 f.

convince a rhetorician of the error of his ways, begin by asking him a question about the good. He will be too shamefaced to extend his relativism to that. At this point the argument moves out of⁹ the realm of ~~80/2~~ and reported elenchus, and asks a straight question about knowledge of the future: what sort of knowledge of the future do we have? Obviously deliberative knowledge, subject to technical criticism. But the victory has been won by splitting the opposition. ~~No one~~ thinks that sensation is the same as deliberative knowledge; but¹⁰ for sensation, it may be true that the sensation is knowledge of such matters as hot and cold.

Here Socrates comes to grips with the arche: that everything is in movement. We show in Cap. IV and V that this passage (179 d ff) is Plato's characterisation of the Heraditean position, and his charge is mainly that it is impossible to argue with them dialectically. The arche is not envisaged as the first answer - this appears at 183 a 1, 3. The arche is that in virtue of which the answer is given. As we shall see in Chapter IV, the arche works as a sort of principle throughout the subsequent answers. The answers are not deduced from the arche, but each answer must be given in the spirit of the arche. The arche will be violated if a "non-moving" answer is given. Plato has identified the root of error and treats it accordingly. The arche is their erroneous method of thinking (183 c 2 f).

Now Sayre elegantly expresses the relation between Theaetetus' opinion and Heracleitus' in the following fashion.

- (α) Knowledge is perception.
- (β) Man is the measure of all things.
- (γ) All things are in change.
- (ν) Meaningful discourse is impossible.

page 95: "Thus (β) entails the falsehood of (α) and (α) entails the

9. 177 e

10. p.94 f; 86.

11. p.63.

the falsehood of (ν). Whereas (γ) entails (ν), (α) entails its negation. How could Plato have shown more convincingly that (α) and (γ) are doctrinely (sic) distinct? ... The theses (α), (β) and (γ) have been clearly separated." - Which does not explain why they were united in the first place. Sayre points out that (α) and (β) have a common necessary condition (σ) that man's "awareness of perceptual knowledge is infallible with reference to the properties which it discloses." (γ) is also a necessary condition of (α), (β)¹²; and (σ) is not discussed in the dialogue¹³. But Sayre's insistence on the importance to the Platonic method of hypothesis of sufficient and necessary conditions rings false. What we get is not that it is a necessary condition of (α), (β) jointly that (γ) all things are in change, which is rather too extensional an approach. (γ) is what converts (α), (β) from truths about some things into errors about all-things. This is the arche, and there are few archai suitable for the post - of sufficient generality, sufficiently radical, sufficiently historic. (γ) is a secret of sophistication - how to turn things into error. ~~The~~ dialectic the danger is that a formula is taken to apply more generally, without specification of its range: i.e. it is taken at its verbal value as a statement about knowledge (without limit) and a statement about sensation (without lim it). It has this characteristic over and above its character as a supposed necessary condition.

Similarly Sayre's discussion of the "exquisite conclusion" (171A; 170 e f) which Sayre thinks invalid¹⁴. He applies to his discussion principles of necessary and sufficient condition, but he ignores that the discussion is an argument about doxa - the sort of argument from the opinion of many which is often referred in dialectic.

Sayre's third important point concerns the 'new way' of 187 D. Up to this point Plato has been proving the existence error or rather finding out the

12. p.73.

13. Cornford P.T.K. 1935 p.49; 101; Sayre p.75.

14. p.87 f.

consequences of its existence; now Plato examines the possibility of error itself. Sayre 'translates' this as follows: "Whereas before Plato was tracing out the necessary conditions for, or consequences of, the possibility of false judgement, now he is concerned to determine the sufficient conditions from which, when realized, the possibility of false judgement itself can be deduced." He compares the Parmenides "To suppose 'that such and such a thing is (his italics) and then consider the consequences' (136 A) is to test the consistency of a thing's necessary conditions, under which test Protagoras' theses (β) was found untenable. To consider 'the supposition that that same thing is not' (his italics) (136 A) and the consequences thereof however is to consider the sufficient conditions of the thing in question."¹⁵

The remark is illuminating, but can be deflated. For up to 187 D Socrates has assumed the existence of error - in fact it looks as though he has proved it when he proves that knowledge may be a matter of deliberation (doxa) because doxa is notoriously either true or false. Antilogical structure now involves Socrates in an attempt to prove the opposite.

Having, in a specious way, proved both p and not -p, Socrates must enquire further in an effort to make his results comprehensible. Hence, possibly, the dream.¹⁶ After the examination of sufficient and necessary conditions, we find that doxa is a necessary condition of error but not a sufficient condition. We need more necessary conditions. We assume error is possible ... and so on. Eventually there is a definition in them of necessary and sufficient ^{conditions} ~~conditions~~. By means of the link between definition by hypothetical method and definition by diaeretic method, Sayre is able to find both methods coexisting in the Theaetetus - coexisting not in the sense of explicit existence here; but, as he says, the dialogue can be described in terms of both methods, using the link of sufficient and necessary conditions. This fact is a clue to what is wrong with Sayre's explanation - his logical methods are so powerful they will explain most 'methods' simply because of their own

15. p.104.

logical properties. But these spare and elegant logical tools are not sufficient to generate the often baroque forms of Platonic argument; and it is the asymmetries that will give us our most rewarding insights into the method Plato thought he was developing in dialectic. It seems insensitive to reduce Parmenides 136 a to a means of finding sufficient and necessary conditions in view of what we know of Parmenides, of Plato's difficulties with the negative and in view of Sophist 242 c 4 ff; 243 b: "It strikes me that Parmenides and everyone else who has set out to determine how many real things there are and what they are like, discoursed to us in rather an off-hand fashion ... When I was younger I thought I understood quite clearly when someone spoke of this thing that is now puzzling us - 'the unreal' ... " (Cornford) In the Sophist, the interest in the negative is found in conjunction with the interest the plural. The conjunction is repeated in the Parmenides passage.

The arche "*everything changes*" is only one possible mistaken arche, identified by Plato with a historical philosophical tradition. In the Sophist, he examines another possible arche - everything real is at rest, which again he identifies with a historical philosophical position. He is to accept neither *τὸ πᾶν ἐμκόσ* nor *οὐδὲ πανταχὶ τὸ εἶναι κινούμενον* but tries tying them together and having both at once. Though he gives us clues about the archai of error, he tells us nothing about the arche of the true philosopher. Commentators lament (or not, according to temperament) that the idea of the Good does not reappear in such a splendid position subsequent to the Republic as it does in that work. The answer may be that Plato looked for an arche, and did not find it: that the concept of arche survived only as a means of analysing rival arguments in depth and securing correspondingly a greater degree of assurance of one's own position from their destruction: 155 d Theaetetus.

Μελέη γὰρ φιλοσόφου τούτου τὸ πᾶν τὸ ἀσυνέχον· οὐ γὰρ ἄλλῃ ἀρχῇ φιλοσόφους ἢ αὐτῇ καὶ ἔθηκεν ὁ αὐτὸς τὴν ἐύμαντος ἐκγονον φήσας οὐ κακῶς γενεαδογόν

VII

From our analysis of hypothesis and arche in the middle dialogues we have formed a picture of statements increasing in powerfulness with each elenchus. The elenchus itself is often frivolous, designed to shock; and only when the 'shock' value, the facile consequences, have been exhausted does Plato get down to business. The art of handling hypothesis is not the art of finding sufficient and necessary conditions; nor have we found any inkling of propositional logic in Plato, who seems to work instead with master concepts. These master concepts are familiar to the dialectician, and introduced by him into any available discussion - likeness, unlikeness, sameness, difference - and in fact they enter into thought in a very intimate way. Attempts we made to find master-master-concepts; but the archai are more successfully found in the diagnosis of error than in the diagnosis of truth. Two of these archai are that 'everything moves' and that 'everything stands': the archai are then used to defeat themselves. Before a disproof of a hypothesis or archai can have the sort of results Plato is interested in, it must be expressed at a certain level of generality, in terms of certain key concepts. Apart from those concepts, proof and disproof are impossible for Plato, who worked with an intensional sort of logic and not with the extensional sort of logic we should be using if we expressed the method in terms merely of the consistency of hypotheses without attention to what those hypotheses mean.

Hypothesis is native to dialectic as a method of agreement: but it gains prominence partly in the effort to make dialectic comparable to other sciences, and partly as dialectic itself becomes capable taken longer and longer breaths between arriving at its (albeit unsatisfactory) opposing conclusions. The status of the arche vis a vis the hypothesis is as far as we can judge a sort of cross between analytically necessary and empirically

radical.

These complexities gave one commentator a false impression, because they are so obvious, so implicit, for Plato. Rose writes¹⁶ there is "a lack of emphasis on any difficulties that may be involved in the process of deducing consequences ... the process of deduction is almost automatic and not worthy of precise analysis." In these circumstances it is dangerous to assume a method, mathematically inspired, which proves truth like mathematical theorem. Since what makes for the consequences of a statement, or for a contradiction within it, is so little defined in Plato.

Plato himself provides the key to a very different sort of analysis of the method of dialectic, in his *Euthydemus*. As Shorey says¹⁷ "The *Euthydemus* in subtlety and logical analysis and in its attitude towards eristic is akin to the *Sophist* and the *Theaetetus*. The question, Can virtue be taught? the protreptic discourses and the quest for the political art resume similar discussions in the *Meno*, *Protagoras*, *Charmides* and *Gorgias*. (An attempt by Bluck to date it before the *Meno* fails,¹⁸ because the *Euthydemus* is obviously not an explanation of doctrine; but Sprague¹⁹ following Luce puts it in the middle group). Sprague summarises its purpose clearly: "to champion the Socratic dialectic as against its false invitation, eristic, or contentious reasoning." In "Plato's Consciousness of Fallacy"²⁰ she claims that the *Euthydemus* reveals "Plato's consciousness of the fallacies of equivocation and *secundum quid*. She also finds historical solutions to some of the puzzles - like the ox at 301 a, where she claims the argument is the Eleatic one referred to at *Parmenides* 130 c 5 ff.²¹ She argues that the surrounding arguments are references to the Forms, which Eleatics will not accept. She diagnoses one of the faults as follows: "other" is an

16. Phronesis 1964. On hypothesis in the *Phaedo* p.116.

17. Unity of Plato's Thought 1903 p.76.

18. Bluck's *Meno* 1964 p.113 ff; Sprague R.K. *Euthydemus* 1965 p.21 n.29.

19. op.cit vii f; Luce, J.V. Date of the *Cratylus*, A.J.P. 1964 p.154.

20. Sprague R.K., 1962 p. xii; 275D-78E; 293-304.

21. Sprague, Phronesis 1967 p.91-8. Dionysodorus' ox and *Parmenides*' Sail.

illegitimate form, though "beautiful" is a legitimate. The brothers go wrong because of their handling of the Theory of Forms.²² But this is to raise many questions²³

An alternative approach is simply to discover the errors made in dialectic by these imitators. The Socratic method is strongly contrasted with its imitators: Kleinias is naturally able to do dialectic as he shows us but is hopelessly confused in the presence of his new master (at 290 b)²⁴. Ktesippus learns quickly from them but all the wrong things (299f). The whole is set in a framework in which genuine philosophical and ethical questions are discussed by Socrates and Kleinias to the point of aporia, which the Eristics claim to be able to solve. They do at the cost of a mindless use of rules and phrases.

The first thing that is wrong is anger. The anger of Ktesippus is exacerbated by this sort of dialectic;²⁵ whereas Socrates' touch is gentle²⁶. The result is that Ktesippus goes in for open elenchus²⁷. Next they insist thoughtlessly on rules of discussion we recognise from the Gorgias, which are used by Socrates to ensure relevance and clear presentation.

At 286 c f they refuse to investigate their position that "it is not possible to contradict". They deny that their previous claim to know virtue and to teach it best has any relation to the argument they are now developing (287 b) - which we compare with Socrates' constant return to a previous argument (288 d 5). They do not explain why it is a separate argument but simply insist on keeping them separate, otherwise Socrates is avoiding the logis. It is a rule (cf. dikaios 28708).

The continuity of Platonic arguments is brought out in the few 'chains' of which one is to be found in the Euthydemus. Kleinias and Socrates are so ostentatiously simple minded in this passage (278 e ff) that we are not

22. Sprague, Plato's Consciousness of Fallacy p.26.

23. Anscombe, G.E.M. Monist 1966. A new theory of Forms pp.403-20 and Vlastos, G. Unity of the Virtues in the Protagoras, Review of Metaphysics 1972 pp. 415-58.

24. For ^{2nd} ~~1st~~ ^{Major} see Burnet ad Euthyphro 12 c 5.

25. 283 e; 284 d 7; 288 b; 294 d; 299 f.

26. 288 b 2.

27. 294 d cf Rp.476 e.

tempted to think of it as deduction, but as guidance. Nevertheless, the statements contained in it are statements of Socratic ~~ethics~~. Now it is interesting that this chain includes a ~~contrived~~ self-correction exempli gratia (279 c 5 ff). It has a retrospective force (279 d 3). The corrected ~~chain~~ is resumed (280 b) and corrected (281 d) and interrupted while we are still unsure of something (282 c). Socrates also makes a mistake at 290 b. Built in corrigibility!

But Euthydemus and Dionysodorus cannot be reached through dialectic. Socrates tries to put the brothers on the right track. At 295 b they refuse to answer Socrates' question, and ignore the implications of Socrates answer when he tells them that he knows in virtue of something i.e. his soul. The fault obviously lies in the application of a rule of question and answer. Socrates is wise to the tricks by now (296 a9). Socrates trips up Dionysodorus with an agreement that looks very like a favourite text of Plato's - that the good are just (296 e) in which he uses the same rule legitimately to force something like a statement of ~~identity~~. Like the business about the soul, this is a starting point of ~~dialectic~~, but instead of its leading to anything, we are treated to short buffets of argument with Socrates, including some important in dialectic - same and different (297 ff); parousia (301); and self-predication - that the beautiful is beautiful, which Dionysodorus refuses to follow through (301 B). They culminate in blasphemy (302 e).

If dialectic cannot teach them anything because of the misuse of rules, it is moral doctrine that effectively dictates the proper use of those rules. There are arguments to be put forward, beliefs to be inculcated, and the rule of question and answer, of keeping to the logos, cannot be used without them. We get a picture of dialectic without the doctrine in the bad behaviour (*παρρησία*) of Ktesippus.

(a) 298 b 4 - 300 b 8: His trick is to find cases that fit or contradict his argument spuriously or humorously e.g. it is good to have only one spear -

what about Geryon. This lands him in vulgarity - the Scythians and their skulls.

(b) 300 c-d. Ktesippus ^{refuses} to admit a qualified answer. The reference is to Socrates' difficulties e.g. 296 a 7-8. He also speaks out of turn by questioning.

(c) 300 d 1-5. "Dionysodorus with his "neither and both" is answering a Ctesippus' question with yes and no, thus breaking a rule tacitly assumed by the Sophists themselves, that every question must be answered by yes or no"²⁸. But we can go no further - Ctesippus' ought to have accepted this answer²⁹, because it is not prevarication. In the Hippias Major³⁰, Hippias expresses disbelief that two things can be qualified in one way, without either of them being so qualified separately³¹.

καὶ πῶς ἂν εἴη τὸ αὐτὸ, ὡς Σώκρατες, μηδὲ τὰς
πεπονημένας τι τῶν θέντων ὁμοῦν ἔσται τὸ αὐτὸ τοῦ αὐτοῦ
ὅ μηδὲ τὰς πεπονημένους ἀφοτέρως πεπονημένας.

Hippias is wrong, as mathematical examples show. Ross writes of this passage of the Hippias Major: "it seems to be evidence of a further development of the Theory of Ideas than anything to be found in the Laches or Euthyphro"³². He links it with "the problem raised in the Parmenides as to whether it is the whole or only a part of each idea that is possessed by individuals falling under it." The answer which Ktesippus scorns is possible, and only an adherence to rule excludes it. But even if this is not the case, the Ctesippus' answer is inappropriate: he has posed a false alternative: are all things silent or do they speak. To this the answer is neither and both. A double question is met by a double answer, the sense of which is "some things are silent ..." Again we get the feeling of misapplication of rules.

Doctrines and dialectic influence each other, but it is not through

28. Sprague, Euthydemus, p. 54 n 94. 29. cf. further Cap. IV.

30. For authenticity, see Hoerber R.G. Plato's Greater Hippias, Phronesis 1964 p. 143-155. 31. 300 b 6. 32. Ross, Plato's Theory of Ideas p. 17.

the medium of formal rules of discussion that doctrine is driven into its advances. The ruling spirit of dialectic is still that of conversation and not games spirit. Plato analyses the whole conversation with the dead Socrates.

VIII

The Lower Half of the Line : Appendix

The Line is not worked out completely. Plato's attitude to the lower half is quite probably opportuⁿistic. Hackforth seems to state the construction best¹: (It is to) "illustrate the relation of dialectical to non-dialectical procedure by the relation of one sort of perception to another in which the object perceived is the same and yet not the same, just as in the illustrandum." The Lower Half is there for the sake of the Upper Half. Once established a proportion is commutative, and many relations may come to light that were neither obvious nor intended. One can only take advantage of them in moderation, hoping all the while that one is not being duped by them. The situation is complicated by the question whether or not the Divided Line should be joined to the other two similes of the section and read as mutually explanatory.² It is not surprising that no agreement has been reached about what 'states of mind' if any the two lower portions are to signify.

We append a sort of discussion of the Lower Half of the Line if only to show that interpretations of it are possible which relate closely to dialectic, and do not require the positing of large amounts of doctrine.

Is the line continuous?³ Ross⁴ argues for the continuity of the line as follows: "In the phraseⁿ using as images the things which formerly were imitatedⁿ which tells us that the contents of the second subsection are images of those of the third as those of the first were images of those of the second, I find the clearest evidence that the equality of the two middle sections of the line ... is something intended; that the visible and invisible subsections are not (as Prof. Ferguson holds) introduced merely as an illustration to bring

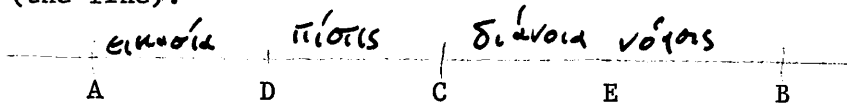
1. CQ 1942 p.2.

2. See Robinson I cap.XI; ~~Raven~~ 1953.

3. Cross and Woosley p.212.

4. 1954 p.47 ff.

out the relations between the two subsections of the intelligible but that there is a continuity between all four subsections of what is symbolised as there is between all four subsections of the symbol (the line)."

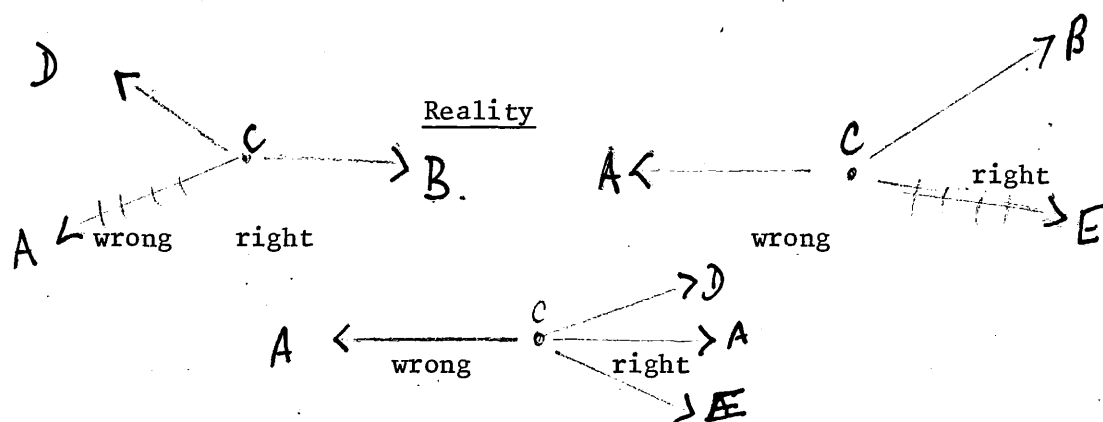


Is DC an image of CE and CE an image of EB? This seems to be an unduly direct statement of the doctrine of mathematical. The evidence of the text (510; 510e; 511a) does not carry us further than a shadow/object relation AD:DC; DC:CE. One solution to this asymmetry is to realise that the point is AD:DC shows two ways of handling the physical world, and CE:EB two ways of handling the mental world, of which one is more in touch with reality than the other DC and CE being more in touch. We have two sets of objects, the seen and unseen, of which the seen are the shadows of the first. There are two ways of handling then - directly or indirectly, through themselves or through shadows.

Instead of considering the Line as a set of lengths, representing a set catalogue of ontological types, it might be profitable to look at it as lines running from point to point. This makes it clearer that A B is one line not two. C is the point at which D C is divided from C E. I am suggesting it is almost a sort of point of orientation: one can move from it in two main directions. Only one physical world is necessary and only one set of shadow object relations. Anyone opting for direction C B will use a method (of reflection on the contents of the world). CE, however, is a mistake though it points in the right direction. It is mistaken because it has copied the relation of shadow and object in the Lower World, and thinks it can transfer them to the Upper World by treating figures as shadows of realities. The correct method is EB ~~which is the "furthest opposite" of AD~~ which is the "furthest opposite" of AD. To this extent C-B is a method of behaviour towards the whole of AC (and so perhaps is CE, because it

distinguishes between shadows and *οχήματα*). Consider AC: first we give direction and call it CA; for DA is furthest away from EB. To find a parallel in methods that holds between Upper and Lower Lines we have to see DA and CD as alternative methods of handling the world, and as alternatives to each other. There might be some strain in this, for AC (which we have transmogrified into CA) was simply a division of the physical world (509 d 5 ff)! But the strain is present in the text: for α 534 we are given CA - states of mind.

We get some such picture as the following:



My main justification for introducing these notions is that

- (a) they economise on objects and situations
- (b) it uses the outstanding fact about Platonic education - conversion, or the "turning in the right direction".

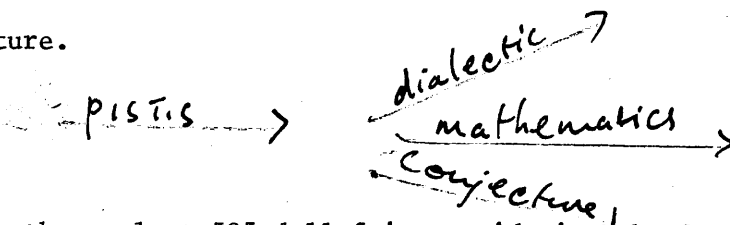
(Even sophisticated education was understood in this discontinuous way. The pupil was to be astonished into learning. In both cases, that astonishment meant the dawn of a disbelief in what the pupils had believed before).

We know that *pistis* has to be broken before the mind accepts the unseen (524 e); and the nature of the unit is something that can break *pistis*. This is possibly a report of an *aporia* - a unit is and is not itself to the naked eye. *Aporia* is a desirable state.

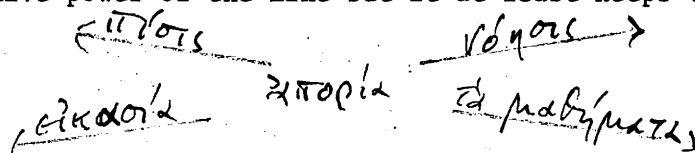
505 d 11 f

ὅτι δὴ δίδωκε μὲν ἄνθρωπος ψυχῇ καὶ τούτου ἕνεκα πάντα πράττει, ἀπομαντευομένη ἢ εἶναι, ἀπορούσα δὲ καὶ οὐκ ἔχουσα λαβάν, ἕκασως τί ποτ' εἶναι οὐδὲ πότε χρῆσθαι μόνῃ οὐδ' αὖ καὶ περὶ τὰλλα, διὰ τοῦτο δὲ ἀποτυγχάνει καὶ τῶν ἄλλων εἰ ἢ ὁ βέβαιος ἦν περὶ τὸ τοιοῦτον καὶ τοσοῦτον οὕτω φῶμεν δεῖν σκοπεῖν καὶ ἐκείνους τοὺς βεβητοὺς...

It might be an account of the soul at point C, when it makes its choices. If pistis is taken as the ordinary unadulterated opinion of the world (for Plato was never worried about whether it is a dagger I see before me)⁵ which has to be destroyed for better or worse, we get the following picture.



Now that the soul at 505 d 11 f is considering the Good is no argument against this. For the Good at this point is quite undifferentiated - stocks, stones, divinities and virtues are all good and it is this multiplicity which produces the soul's quandary. Now in the continuous lines there might be an aporia at D and at E; but does Plato really want to tell us that we discover pistis in the matter of the shapes of the visible world after being forced into aporia by the contradictoriness of shadows? and there cannot be an aporia at E unless there is one at D. It seems preferable to me to recast the line as the spokes of a wheel around a central aporia. This loses the evaluative power of the Line but it at least keeps the method clear.



Hamlyn⁶ suggests that eikasia is subsequent to pistis. It is being acquainted with eikones. The conjecturers are adulterated, sophisticated, conjecture theories. It is an acquired state and worse than pistis. He points out that the nearest candidate for the meaning of eikasia is the power of predicting from memory future images. He connects it with a ~~Humean~~ analysis of perception, but in historical terms we should connect it with the apologetics of Greek Science or, generally, the instructed thought of educated men of the period. Eikasia is the sophistical way of escaping from aporia. At Rp.475 ff we are given instruction in how to pick out the

5. Hamlyn 1958 p.14f.
6. op.cit. p.14f.

most apt pupil for training in philosophy. He is not a follower of the many in any of its shapes, but of the one. "Singlemindedness" is also a characteristic of the mathematician and we shall learn its significance later.⁷ But the sophistic solution is simply that there are many kinds of good: and from that he moves on to asserting: there is no one good. What goes for Good goes for the other concepts we use continually in our thinking without acknowledgement.

We began by admitting the force of Ross' proof that the Line is continuous: but we have combined this with Crombie's insight that (eikasia plus pistis) does not add up to doxa (p.74) and Hamlyn's realisation that eikasia is subsequent to pistis. Eikasia is the destruction of pistis and the Lower Half of the Line gives the mirror image of the Upper Half.

Our version still assumes against Robinson that Plato has given attention to the two lower parts of the line. The most persuasive argument for our assumption is the character of the Cave simile, which we have ignored and which Robinson points out cannot be matched stage for stage with the Line. The Line after all is an image of knowledge, while the Cave is an image of Life. The Cave is about politics⁸. But we suggest that it is about politics at least partly as an example of false science. If it is remembered that pistis can be inadequate and eikasia can make matters worse, then our interpretation can fit the Cave, in which there are competitions for prediction.⁹ Unfortunately it is impossible to prove that Plato did take the intellectual component of the Lower Half of the Line seriously.¹⁰ Perhaps this impossibility is not so distressing as it might be, because eikasia and pistis sink into obscurity and if they do leave issue in Platonic philosophy, then the eikasia section probably turns into the

7. Infra Cap.IV.

8. Ferguson CQ 1922 p.18 ff.

9. Rp.516 c.

10. Other attempts see note 18 ^{Cap. II V}

Εἰς μέρος of the Timaeus - the natural science of the Ionians and
 Sicilias which is only a little improved by a strong admixture of *ἡ ἰσότης*
ἡ γωμετρική).

CHAPTER III: DIALECTIC AND MEMORY

I

It needs emphasising that Plato had the same theory of *memory* as other people: for him as for other people, memory is linked with affects; is conscious only fitfully; requires constant renewal. But the Ancients thought of memory as an intelligent faculty more than they thought of it as a faculty closely connected with time¹, but separate from reason. However the theory of memory contemporary with Plato had not separated active memory from passive memory; and contemporary accounts of memory suffered accordingly, the more so as they were historically committed to the belief that memory was the mother of the arts.² This deficiency is first noticed by Plato. The theory of memory must be distinguished from the (titular) theory of Recollection, but much of the *aliveness* of the theory of Recollection is lost if recollection is dislodged from its niche in the theory of memory.

The most important sources for the early theory of memory are Gorgias 501a, Phædo 96 b and a group of texts connected with Alcmaeon.

Gorgias 501a:

ἡ δὲ ἐμπειρία τῆς ἡδονῆς πρὸς ἣν ἡ θεωρία ἀδύνη ἐστὶν
 αἴσθησις, κομιδὴ ἀτεχνῶς ἐπὶ αὐτὴν ἔρχεται οὐτε τι πρὸς φύσιν
 σκοπεύουσα τῆς ἡδονῆς οὐτε πρὸς αἰτίαν ἀλλ' ὡς τε παρὰ φύσιν
 ὡς ἔπος εἰπεῖν οὐδὲν διακριτικὴν τριβὴν καὶ
 ἐμπειρίαν μνήμης μόνον συζομένη τοῦ αἰσθητοῦ γίνεσθαι,
 ὥστε καὶ πορίζεται τὰς ἡδονάς.

Here *empeiria* is distinguished from *techne*, probably for the first time.³

Empeiria is associated with memory and pleasure. *Techne*, on the other hand,

1. cf. Vernant 1966 *Mythe et Pensée* 58; 52; 74.

2. e.g. Hesiod: *Theogony* 915 ff.

3. Dodds' Gorgias ad 465 a 2-5. Add Heinemann 1961 p.115 f; n.50.

"counts", examines aitia and physis, and because of this can give reasons. The distinction, also made at 465a, and dramatically confused by Polus at 448c, is one of the themes of the work. The vocabulary of Polus' utterance is sufficiently unusual to be a quotation from the real Gorgias, and is often taken for such. Radermacher⁴ discounts the evidence of Syrianus, which is to this effect. Aristotle⁵ says that Polus claims empeiria makes techne but this proves nothing. Socrates himself makes the attribution to Polus at 462 b 11f. Polus existed and specialised in rhetoric.⁶ His *συγγραμματα* need not have been a technical handbook, but we have no reason to doubt its existence. At 462 b 11f Dodds (following Robin) translates "(Empeiria) which you claim to have made an art in your treatise" instead of the usual rendering" (Empeiria) which you yourself assert in your book has created art." If techne and empeiria are not distinguished at this date there is little point in saying that one creates the other. What the passage means in text of Polus is still not clear. It may mean that because he has made many⁷ speeches he has the art of speaking. Polus' subsequent remark brings into play the opposition 'techne - tyche' which is very much in the tradition of the "professional" disputes of the medical corpus⁸. Polus may be defending the 'practical' orator against the "theoretician", or vice versa. In any case the use of empeiria 462 c 3 recalls empeiria 448 c 5; and there is a strong presumption that Polus used both the word 'empeiria' and the word 'techne'. But Socrates' sort of distinction between techne and empeiria is known to neither Polus nor Gorgias.

Empeiria is irreducibly connected with memory. Memory is one of the first elements in a Gorgianic (or Isocratean) education. The meaning of a sentence claiming that empeiria makes techne is not so very different in the context of memory from the meaning of a sentence claiming that empeiria

4. Radermacher, *Artium Scriptores* p.173.

5. Met. 981 a 4.

6. Phædrus 267 b c; Radermacher, XIV For Polus and memory, Gorgias 466 a.

7. cf. Gorgias 457 c 4.

8. e.g. *Vetus Medicina* Chap.I; XII; *de Arte* IV, VII.

meaning of a sentence claiming that empeiria has been made into a techne by (mnemonic) techniques. Aristotle⁹ accuses Gorgias of just this - giving his pupils arguments to learn off (ἐκ μνήμης). Aristotle complains that this sort of pedagogy produces results quickly, but is not scientific (ἀτεχνος). It is unlikely that Polus claims to correct Gorgias in this respect, for the distinction requires more thought than we generally credit Polus with; but it is possibly the criticism that Socrates is making. A techne can be taught - but teaching does not rest on the memorising alone, because memorising cannot meet all contingencies and does not rest on principle. So it is possible, using Dodds' translation, to read into Socrates' remark the complaint that the school of Gorgias uses memory too much. Now it is a sufficient connection between Memory and Empeiria/Techne that a man should learn his empeiria by memory work. But there are signs that more is implied.

Wikramanayake (G.H.)¹⁰ says : "According to the sophistic theory, just as according to Aristotle's, techne is based on empeiria and empeiria probably means memories of sensation". He does not argue for it;¹¹ but the strongest argument I can find that empeiria does not simply mean "skill gained by practice" is the connection empeiria has in Plato with pleasure. It is not simply that the aim of empeiria is pleasure, because hedonism is not directly in question in these contexts. "Pleasure" here stands for "pleasant sensation", "unexamined appearance". A party of schoolboys is perfectly capable of judging the performance of a pastry cook because nothing more is required than taste buds. There is no question, here, of entering into disputes about the nature of pleasure, or whether virtue or pleasure is the goal of life. The argument assumes that pleasure is immediately identifiable and not subject to reflection. There is a

9. e.g. Soph. Elenchi. 183 b 38 et infra.

10. Das Verhältnis der Philosophie und der Rhetorik bei Platon und Aristoteles; Diss. Göttingen, 1965 p.252; 245 ff.

11. op. cit. p.246.

conflation of subjective and objective: the pastry cook aims at the pleasure of others,' the man led by *empeiria* is led by the memory of his own pleasures and pains - for neither can there be a standard. Little distinction is needed at this point between a habit formed by pleasures, and a 'knack'

(τρίβη καὶ ἐμπειρία σοία) of procuring pleasures. We note the connection of memory with affect, and that memory is evanescent. It is because of the connection between memory, pleasure, pain and sensation that Plato began by asking how does memory last rather than why do we ever forget - an equally natural question.¹² To emphasise the double nature of *empeiria* ("personal experience" and "practice, trial and error") we may compare two passages of the later works. In the *Republic*, Plato faces the problem of how a guardian is to come by knowledge of evil. The guardian judge must

learn about evil late, and through the experience of others (409b) ἀλλὰ γέροντα δὲ τὸν ἀγαθὸν δικαιοσύνην εἶναι, ἐκίματόν γερονδία τῆς ἀδικίας, ὅσον ἐστὶν οὐκ οἰκείαν ἐν αὐτῷ ψυχῇ εὐνοῖαν ἡθελήσαντος ἀλλ' ἀλλοτρίαν ἐν ἀλλοτρίαις μεμελετηκότα ἐν πολλῷ χρόνῳ διαπομπανέσθαι, ὅσον πέφυκε κακόν, ἐπιστήμην οὐκ ἐμπειρίαν οἰκείαν κακῶς κερήμενον.

⌘ The second passage comes from the *Laws* 720 b c, where the slave-doctor learns his art by *empeiria* and not according to *physis* and in consequence must give orders to a patient, like a tyrannos, as if he knew his art correctly. But the free doctor examines his patient:

ἔξετάζων αὐτὸν ἀρχῆς καὶ κατὰ φόβον

Aesthesis and *empeiria* seems to have a more full blooded connection with each other than a mere connection of sense-perception with memory suggests. In the next passage *aesthesis* should probably be translated as sense-experience, sense faculty:

12. Encyclopaedia of Philosophy "Memory" p.273 suggests the latter is a more natural question.

Phaedo 96 b 4f.

(A*i*) ἢ τότε μὲν οὐδὲν, (A*ii*) ὁ δ' ἐγκέφαλος ἐστὶν ὁ τὰς
 αἰσθητικῶν πρὸς τὸ ἀκούειν καὶ ὄραν καὶ ὀσφραίνεισθαι
 (B) ἐκ τούτων δὲ γίγνεται μνήμη καὶ δόξα, ἐκ δὲ μνήμης καὶ δόξης
 λαβούσης τὸ ἡγεμεῖν, κατὰ ταῦτα γίγνεται ἐπιστήμη

"Or is thought due to something else, namely the brains providing our senses of hearing sight and smell which give rise to memory smell and judgment, and ultimately, when memory and judgment have acquired stability, to knowledge?" (Hackforth).

The editors agree that this theory belongs to Alcmaeon. At D.K. Alcmaeon A5 (26) the wording is similar. In that passage Alcmaeon is said to have declared that sight, hearing etc. are connected with or 'suspended' from the brain; and this seems to be the point of the rather indirect locution here (ὁ δ' ἐγκέφαλος ἐστὶν ὁ τὰς αἰσθητικῶν πρὸς τὸ ἀκούειν...). But we do not know whether the clause B above follows clause A*ii*, or both A*i* and A*ii*. If it succeeds both A*i* and A*ii* then B is not expressly part of Alcmaeon's theory; and in fact we know nothing about a theory of δόξα attributable to him. If it is the case that he had none, then (B) is probably an original formulation of Plato's.

Our reason for thinking that A*ii* and B belong to Alcmaeon is, briefly, that in the medical writings¹⁵ a theory that the head is the source of thinking is found in conjunction with a theory of flux. The brain and the eye both need to "settle down" before registering knowledge. Excessive moisture prevents this. The passage contains some signs of a ranking of the senses: the brain φρονεῖ and the tongue speaks whatever it sees and hears. We know that Alcmaeon paid particular attention to a theory of οὐρούς (fr. I; Ia DK) centred presumably in the head. Added to this a few

15. De Morbo Sacro Cap. 1 cff. συνιστάμενον Cap. 18. This evidence is not used in 'Alcmaeon Re-examined', D.Z. Andriopoulos, Studii Clasice Bucharest) 1971 p. 714. and Pauly-Wissowa, Supp. XII 1970. H. Dörrie.

shreds of Aristotle make it likely that Alcmaeon held theory that mentioned doxa and mneme. The case is as follows: the Phædo passage above contains no reference to animals, and Plato seems to have dealt with the distinction between men and animals in largely mythological modes.

Yet Aristotle uses the theory contained in the Phædo to settle the difference between men and animals in passages¹⁶ that would otherwise be taken as corrective references to the Phædo passage. The De Morbo Sacro, Plato and Aristotle all use the same word *ἀνθρώπου — ἡρώου*

(L.S.J.). DK fr.1a informs us on the authority of Theophrastus that Alcmaeon thought the superiority (*διὰ φύσιν*) of man over the animals was a consequence of his powers of understanding. The difference between man and the animals is one of the headings of Theophrastus' "history of philosophy" and he is quite capable of distorting his sources to fit it.¹⁷

But it is quite likely too that it is a heading of Pre-Socratic anthropology¹⁸. It seems, then, that Aristotle may know of a theory of the development of knowledge which connects both with the Phædo passage and with what is known of Alcmaeon.

Both Aristotelian passages generate memory out of the staying power of aesthesis¹⁹. For the purposes of Posterior Analytics, this is a sufficient condition of the development of empeiria in an animal; and an empeiria that has fixed itself is the beginning of techne and episteme. But the Metaphysics adds a further necessary condition. If in addition to being intelligent an animal is to learn, it needs a sense of hearing as well as of memory. Metaphysics qualifies the Posterior Analytics account of the relations of empeiria and techne. Although there is little difference in practical benefits between the two, techne is considered

16. Met.980a 27 ff; Post.Anal. 99 b 35 ff. c.f. De Mem et Ren. 450 a 32. Though Aristotle has his own reasons for introducing animals of course.
17. McDiarmid, Theophrastus on the PreSocratic Causes; ed.Furley 1970 p.178-238 esp.233 f.
18. cf. Anaxagoras DK fr.21b.
19. 980 b 22 - 99 b 37 op.cit; Cratylus *μνήμη — μνήμη* 437 B; Topics 125 b 9.

superior to empeiria because it is reasoned²⁰ and can be taught.²¹ At two levels then Aristotle has included a reference to communication by sound and by language. This serves to distinguish between the acquisition of knowledge and a process of conditioning, but the distinction is not followed through by Aristotle in either passage. Instead he is more interested, at least in the Posterior Analytics in the process by which many things (i.e. memories) become one thing (i.e. empeiria). The process is repeated during the transformation of empeiria into techne. This Aristotle calls the problem of one over many²² and the mention of it seems to owe more to the challenge of Platonism than to pre-Platonic theory. As we shall see, Plato himself is aware of this conversion by memory of many things into one. But in his "ordinary" theory of memory, the phenomenon does not present itself to him as a problem: everyone knows that memory is deepened, strengthened, clarified by successive experiences of the same thing. Repetition makes perfect. This is an element of Plato's ordinary theory of memory from the beginning. It does not refer to the possible congealing of "sense percepts" by an occult natural process.

Hackforth²³ says of the Phædo passage: "This purely empirical theory of knowledge is of course incompatible with Plato's *ἐνδύμνησις*." But how Alcmaeon would reconcile his physiological emphasis ~~with~~ his equally emphatic emphasis on thinking (fr.1, 1a, ...) is anyone's guess. The problem probably did not arise for him, since the divide between mental and physical substance first arrives after his death. The distinction ~~of~~ is one of the points of tension Plato has spotted in the theory.

We can now see more clearly what is meant in the Phædo passage. First, episteme is used in place of empeiria. We have no reason to assume that the Alcmaeon theory denies the rôle of reason, but the absence of any

20. 981 a 25 ff.

21. 981 b 8 ff.

22. 981 a ff; 100 a 3 ff.

23. Phædo. p.123 n.3.

mention of reason from the sentence seems to be the motive of Plato's formulation of it. Second, it is a 'physical' theory, so that according to it the acquisition of knowledge is involuntary. But it is superior to other possible theories in that it postulates grades of awareness, necessary conditions of knowledge. Memory, for example, is essential to the sort of mental activity that leads to knowledge²⁴; Plato seems in no doubt that knowledge has to be worked to through other things²⁵. The list of grades turns up again in the Theætetus, as a guide to the subjects to be investigated when defining knowledge (Theæ 179 cl-4); and in the Philebus, telescoped, 38b 12.

οὐκοῦν ἐκ μνήμης τε καὶ διόδοις ἡμῶν καὶ
τοῦ διαδοσάμεν ἐκείνου γίγνεται ἐκδοτότε

From the similarity of phrasing we can conclude little; for drastically altered methodologies often underly an unchanged Platonic Vocabulary - dialectic, diæresis and possibly anamnesis are examples of this sort of vicissitude. But what is instantly remarkable about the Philebus passage even here is that it deals with mind on its own. The 'physical' features of the Phædo theory have been removed to the antechamber in the Philebus and are no longer admitted into the realm of 'mind on its own'. It is questionable if the physical side of the theory was ever of real interest to Plato. Two texts shows something like such an interest but slightly different; that mind and knowledge succumb to universal flux. The texts are in the Symposium and the Laws.

The Symposium context is as follows²⁶ all nature longs to perpetuate itself. Human beings might look after children out of calculation; but the fact that animals do it proves a deeper force is at work²⁶. The scene, then, is genesis. It is old hat that generations and individuals

24. Knowledge of past, present, future is involved e.g. Theætetus 178 b 6 ff; 186 d. cf. Cooper 1970 p.142; Laches 198d.

25. Laches 201ab; Charmides 176 c; Euthyphro 15d.

26. i.e. Physics 206 c 4; 207 c 8; 208 b 5; Rosen, S. 1968 p.249 ff.

are always changing: but it is more important that character and mood and opinions are always changing. Even each and everyone of our knowledges pass in and out of being - Plato adduces a typical 'proof' of this from ordinary practice. We have to keep rehearsing our knowledge to keep it with us. Thus it is not really the same knowledge but a constantly renewed knowledge we mistake for knowledge which endures in our minds.²⁷ The very words we use indicate flux (μὴ ἴσθι - μὴ ἔσθι)²⁸. The conjunction of knowledge and rehearsal is of course educationally sound and a contemporary preoccupation²⁹. Plato is obviously talking about the 'appearances' or phenomena of knowledge. But once again the materialism of the theory does not seem to be important, and importation of semi-modern concerns about mind/body is an anachronism. Memory and the attendant phenomena of forgetting and remembering, coming to mind and passing out of mind is an obvious example of flux in its own right. These are τὰ ἰσθῆναι ἢ εἶναι Ideas defined as what is 'seen' in introspection are particularly evanescent because one keeps on thinking. In the world of change the answer is melete. Laws too change and lose appeal at Symposium 210 c 3 ff, but laws are in no helpful sense "physical" or "material". Obviously Plato is talking about what people think is law, what people think is knowledge etc. and agrees with them that these things are in flux. Perhaps 'people' would be a little taken aback by this - as it is the opposite of Alcmaeon's 'rest' theory - but Plato would point out the implication of their own practice. If laws and knowledges are an example of flux then by a Platonic slither never fully explained, they are examples of perpetual flux.

The second example of the ordinary theory of memory and flux is Laws 732 b 5 ff. Everyone should keep recalling his neighbour and his himself

27. cf. The Theætetus account of the effect of genesis on mind 153 d 8 ff.

28. Klein 1965 p.157.

29. See passages Guthrie IIIA p.256 f.

(i.e. who they are, their true nature) both at work and play"
presumably because the power of rehearsal and recall is necessary to
prevent the dissipation of our sense of reality into the dream of flux.

The Timæus passage begins at 25 e 3. The structure of "recalling"
is the same as the structure elaborated in the Meno and Phædo. First
Critias is 'put in mind of' ³⁰ the tale of the elder Critias by hearing
Socrates' "speak" the Republic. But he does not remember clearly at
first instance, because of the lapse of time. The act of "recollecting"
is thus far involuntary and set in motion by a perception. From here on
it is voluntary, taking place only in the mind (ἐν τῷ βραύτῳ) without
physical occasion or concomitant. ³¹ He begins going over everything in
his memory, bringing up (ἀναφέρειν) ³² and examin-
ing them (πάντα ἐπισκοπεῖν). He rehearsed again at dawn, having slept
on the memories, and now he can repeat in detail what was said to him when
he was a child. The passage is clearly a description of mnemonic
technique; but it also makes a statement about the nature of memory. Why
is it that Critias would have difficulty in recalling an event of the
previous day; but he can recall in detail events of his childhood? The
answer is, first, that memories of childhood are tenacious, as everyone
says (ὅτι λεγόμενον); but second, he originally heard it under
propitious circumstances. Pleasure, play, an old man's enthusiastic
teaching and a child's vigorous questioning made the event memorable.
It is branded on Critias' mind indelibly. That is how this particular
memory achieved its tenacity. We have already noticed the connection of
memory with pleasure. What we notice here is something rather odd - why
should the child's questions improve his memory of that occasion. After
all the old man probably produced an instructive monologue. In this

30. Sorabji 1972 p.35 on the 'passive' ἀναμνηστικὸς

31. Contrast De Mem et Rem. 453 a 14 ff: recollection is bodily.

32. Vide infra

reference to questions we perceive a fusion of the method of dialectic with the method of effective teaching and educational psychology which should remind us that divisions and labellings we make of Plato's "philosophical" methods should not be separated very distinctly from educational situations.

At Rp.518 b 6 f we are told that the professionals (οἱ ἐπαιγεῖσθαι μὲν οἱ) are wrong to claim that they put knowledge into souls where previously there was no knowledge. Perhaps this is true of ordinary virtues, but intelligence is diviner and always present in the soul, making the good man better and the bad man worse. Treatment of the intelligence is an art on its own - the *ἐπιστήμη*. Gulley suggests that the passage refers to the doctrine of Anamnesis. But changes have been made - intelligence exists as a *δύναμις* in the soul; and it is separate from Anamnesis because it can work equally strongly in two directions, ~~as a memory or~~ *as a memory or*. Intelligence must be provoked and used properly before the teaching of outsiders can metamorphose into knowledge inside someone else. The thrust of the argument appears to be directed against an educationalists' memory theory - that knowledge changes hands in the shape of statements and is kept in memories.

We have seen that Plato has a strong "ordinary theory of memory", in which anamnesis and memory are distinguished. Memory is at home among appearances, emotions, character traits. It must be constantly renewed by anamnesis, the descriptions of which resemble the descriptions of dialectic. Just as dialectic needs to work on a good physis, so the most striking thing about memory is the variation of its quality from person to person. The ability to account for this variation is an additional recommendation of any theory of memory presented at the time³³ and a bad memory, one suspects, is considered a sufficient cause for mistakes and ^{un}intelligent behaviour. Plato draws on two sources to elaborate his theory of memory - the educational and the Alcmaeonian, in neither of which is the distinction

33. Theat. 194 e; Rp.526 b; Ep.VII 344a; Theat.144 ab; De Mem Rem 450 a 32f. Diogenes of Apollonia DK 64 A 19.45.

made between active and passive memory. Yet the two memory theories only work on the assumption that there is an "intelligent" memory. Plato became aware of this tension in his examination of dialectic, in which the tension is most flagrant. The statement of this tension seems to him sufficient to disprove the two rival conceptions of learning and to turn them on their heads. But he did not consider the whole process by which we acquire knowledge in school and in the world, which he takes for granted is roughly as the rival theories have it.

It will become obvious that a good memory is not just a trick of conversation for Plato, but plays an essential role in giving or guaranteeing the truth content of a conversation. This is the additional link required to turn an analysis of the different types of memory in pupils into an epistemological doctrine: The theory of Anamnesis is not a bonanza Plato suddenly got from the Pythagoreans, but essential to the validity of dialectic; and an appreciation of it arises naturally says Plato, from an appreciation of dialectic.

Nowhere is the problem posed or solved by distinguishing between a "physical" memory and a "mental" power of recollection.

II

At Gorgias 495 d. Socrates puts Callicles' monstrous views "on record" (Dodds ad loc). To this end he uses a legal formula, drawing attention to a "deposition". But he can only entrust the deposition to his listeners' good memories:

Φέρε δὲ ὅπως μνησόμεθα ταῦτα ἐπὶ Καλλικλῆς ἔφη
Ἀχαρνέως, ἡ δὲ μὲν καὶ ἀγαθὸν ταῦτόν ἐστιν.

The same combination of legal metaphor and memory occurs at 473 d:

Socrates says to Polus

μορμολύτῃ δὲ ὡς γενναίᾳ Πῶλε καὶ οὐκ ἐλέγχεις,
ἄρτι δὲ ἐμαρτύρου. ὅμως δὲ ὑπόμνησόν με σμερῶν

Here memory picks up the "unguarded" admission. Socrates does not mean "Remind me of what you said" but "I begin to remember letting something pass". Such requests for "reminding" are not followed by a verbatim account of what was said, but rather by a reexamination or clarification of the issue. So at 500 a 7 the relevance of Socrates' "recalling" the conversation with Polus and Gorgias has to be made clearer 500 e ff. A good memory is necessary to prevent mistakes.

At 466 a: Socrates criticises Polus:

Pol: κολακέα δοκεῖ σοι εἶναι ἡ ῥητορικὴ;
Se: κολακίαι μὲν οὖν ἔχωσιν εἶπον μῦθον, ἀλλ' οὐ
μνημονεύεις τηδικοῦτος ὢν ὡς Πῶλε

Now Socrates is trying to teach Polus the art of dialectic, one of the cardinal points of which he thinks is a full appreciation of the interlocutor's meaning. Polus is merely interested in eliciting a short, indefensible answer. Socrates criticises him, pointing out an obvious sharp practice, but he is not criticising him for mere misquotation. It is clear to anyone who examines the role of memory in Platonic dialectic

that memory is an intelligent faculty. Memory chooses its moment; it remembers only to the point. There is an exactly similar passage of arms in the Protagoras, when at 350 c 5 Protagoras accuses Socrates of not remembering an answer properly. But what Socrates does not remember is the sense of the answer. Under that appeal to memory lies a distinction amounting to the distinction between a proposition and its converse. Convertibility is a logical notion, and cannot be wrapped up as mere misquotation: all courageous men are bold, but not all bold men courageous. Yet the word by which Plato draws attention to this is a memory and word; and by implication, the faculty guarding against such practices would seem to be memory.

The Gorgias has its quota of summaries. It was a principle of Socrates to repeat and repeat - but to repeat in order to avoid mistakes and to verify inferences. He justifies this habit very often with light-hearted colloquialisms (498 e 11 f

καὶ δις γὰρ τοι καὶ τρίς φάσιν καθὼν εἶναι τὰ κατὰ λέγειν αὐ καὶ ἐπισκοπεῖσθαι
it is a "retake" (ἐπαναλαβεῖν) of the argument from the beginning³⁵.

But these "retakes" are usually "recreations", at least clarifications of the preceding argument. Yet if Socrates was asked how it is he manages to devise and correct his arguments, he would say he did it by dint of "going over the same things" and exercising his memory. Of course, I do not imply that the Platonic Socrates was so naïve as to think he was reporting verbatim what was said: I am merely suggesting that Memory is a much more active faculty for him than for us, and verbal exactitude was not ranked very high in the list of Greek virtues. But perhaps the most significant use of "recalling" in the Gorgias is at 500 a 7. Here Socrates joins the results of two arguments - the argument with Polus and Gorgias and the argument with Callicles. Now what is remembered is not a verbal

35. 488 b; 498 e; 506 c 4 ff.

formula, but a genuine relevancy that requires explanation³⁶ before the partner appreciates it. Yet the only answer Socrates can give as to why the argument has behaved like this is that we recall the previous argument. At Euthyphro 15c, Euthyphro is asked if he remembers the result, not of the argument they are engaged upon, but of the previous one (10d): for if he does (and we may add only if he does) he will see that the argument has come full circle. In the Protagoras after the long excursus on literary criticism, Socrates persuades Protagoras to begin the real discussion with him again. But the results of the previous attempts are not annulled:

349a 7 f: *πάλιν ἐπιθυμῶ ἐξ ἀρχῆς τὰ μὲν ἀναμνησθῆναι, παρὰ σοῦ, τὰ δὲ συνδιασκεύεσθαι* (37).

Socrates uses the interlocutor's memory to remind himself of the argument. The point is especially effective since the preceding passage tries (ineffectually?) to prove the need for an interlocutor in dialectic.³⁸

An especially remarkable example of "recall" linking more than one argument is found at Phædo 103 b. where an argument from the beginning of the sequence (viz. that opposites beget opposites) is brought into collision with the last argument (viz. that opposites are always opposites). The word for this is *ἀπεμνημόνευκες* and in the circumstances one is tempted to translate "raise an objection from what has been said".

Memory, then, has a special role in dialectic recognised before the date of the Meno, and seems to be independent of the "transcendental memory" used in the Meno and Phædo. The picture does not alter in the dialectical works written later. Timæus repeats the lesson of the previous day (17 b 7 ff) but his memory has already resolved the lessons of the Republic

36. 500 d 6: cf. the reverse Phdo 100b, 100 a 3. cf. Cap.II i supra.
 37. The passage has memory in mind. 350 c 6; 349 e1.
 38. 348 c 5 ff.

into 'capital points'⁴⁰, which he repeats like a successful dialectician
*διὰ βραχέων ἐξ ἀρχῆς*⁴¹. The structure is repeated when
 Critias remembers⁴². The danger is that a man has forgotten something
 essential.⁴³ This is a ruse of dialectic - and, we must remember,
 in the language in which dialectic would be described.⁴⁴ Recollection
 must be completed - a point of great importance in the titular theory
 of Recollection - in a rational fashion. In the Euthydemus, as elsewhere,
 memory surfacing causes a change of mind, a reversal of previous arguments;⁴⁵
 but what is remembered requires investigation.⁴⁶ For it is not always
 understood properly. Nicias for example⁴⁷ has often heard Socrates say
 that a man is good in so far as he is knowledgeable, but in so far as he
 is ignorant he is bad. Yet he still does not understand it.⁴⁸ Protarchus
 confesses that he had often heard Gorgias, but now does not understand
 (i.e. has not learned) what Gorgias was talking about.⁴⁹ Meno, also a
 pupil of Gorgias, evidently has the same difficulty, and it is no accident
 that Plato examines recollection first in dialogue with a man brought up
 on memory-training.⁵⁰ Charmides is an example of a man who can remember
 - what Critias has said - but cannot defend it or, in consequence, understand
 it.⁵¹ He is a victim of what we should call 'mere memory work'. 'Mere
 memory work' has its place in Plato; and is probably one of the root reasons
 for Plato's objection to book learning.⁵² But Plato never complains, like
 a modern teacher, that his pupil is working from memory. He claims that his
 pupil is not remembering (or using his memory) correctly. The pupil has
 the hypomnemata to help him: it is the pupil's business and his alone to
 perform correctly the reciprocal operation of anamnesis. Memory provides
 objections to arguments,⁵³ memory keeps up the rules of debate.⁵⁴ A request

40. 17 b 8; for the general situation compare Lysis 211a.

41. 17 b 8. 42. 26 c 6. 43. 19 ab.

44. Symp. 201a; Ptgs. 329 b 6 f; Phdo 73 a 5.

45. 279 c 5; Cap.II iv 42. 46. Meno 81 a 5; Phdo 70 c b; Phdrus

270 c 3; 274 c 5; Phil 20 b. 47. Laches 194 d.

48. Phil 58a. 49. Meno 71 cd; 73 c; 76 ab; 79 d; for

Gorgias and memory supra. 50. Charm. 161 b f.

51. Ptgs. 329 a; Theæt. 152 b; 162 e 4; 162 d etc; Phdrus 274 e5.

52. Pol. 293 a; Theæt. 205 c. 53. Theæt. 157 c; Pol.285c.

to be reminded is a requested to be reminded rationally; and a remembered, ordered summary is as much part of diæresis as of early dialectic⁵⁴ though of course this is true mainly of the technique of discussion.

Now one of the main functions of memory is to provide a guarantee of coherence - it links arguments together in the way found typical of the Socratic earnestness.⁵⁵ All genuine arguments are continuations of one another.⁵⁶ In the Euthydemus this can be shown quite elegantly: for what is sophistical about Euthydemus is precisely that he does not allow appeal to the memory of statements in the previous argument.⁵⁷ We noticed that Plato holds no fully stated law of contradiction until the Republic and even of this there is some doubt - but one way of filling the gap is to cultivate a memory, not a verbal, but an intelligent memory. A possible guarantee of such a memory is the genuineness of the pursuit of truth: if any argument can lead to truth, then all arguments must be given their due weight at all times. But if the objective is to win one round of discussion, then previous rounds are irrelevant. To this extent Plato is conscious of the crucial role of memory in his "method of dialectic".

We see the results in the Philebus. The Philebus discusses memory on the "philosophical" level - the level of superstructure; but it is also shot through with the uses of memory in its infrastructure. Memory is treated as a dialectical reality - as much an element of the situation as bicarbonate of soda in pastry. In fact remembering something is superior to seeing something: because the remembered fact is softened and regurgitated for a relevant context, whereas a fact seen is likely to be disconcerting with no clear line of connection with anything. A fact seen is not part of discussion, and discussion is what produces truth, not looking at things.

54. Soph. 250; 264c.

55. Vide Cap.I supra.

56. Phil.fin; Ptgs. 349a; Laches 201 c etc.

57. Euthydemus 287 b; 288 d5.

The Philebus reference to listening fruitlessly to Gorgias has been dealt with above. The remaining ^{relevant} references to memory in the Philebus divide most easily according to the stage of development of the argument at which the power of memory is invoked. We find that the use of memory is as follows:

1. Outset

Here a statement is memorised, or memorialised, as being of special importance like the "deposition" in the Gorgias. 20bc is an example. A god⁵⁸ puts device or memory into Socrates mind - the memory takes the form of a statement with the qualities necessary to serve as the basis of discussion cf. 33a; 41c.

2. Memory joins the outset to the consequences, and enables one to draw conclusions. It joins in three ways - either it brings into proximity with one another two contradictory or otherwise important propositions e.g. 41c; or it reminds the interlocutors of the method or principle being used in this particular argument e.g. 25 a - 23 d; or it brings together propositions dispersed in what seem to be different sub-arguments e.g. 41 c; 33a.

2a. A request for explanation of the previous argument is couched as a request for "reminding" 31c; 67 b.

3. Memory introduces propositions from outside the chain of arguments. These are then worked into the structure e.g. 20 b; 19 d; 24 c - where the propositions involved are well known to Platonists.

4. Conclusions are also committed to memory, as at 31a. For conclusions become starting points and so the cycle begins again cf. 33a. The outsets of the different arguments are connected by memory, as they were in the linked hypotheses of the Phædo, and so we come full circle, without ever leaving the orbit of memory.

58. Compare Hector at the Ships: Iliad VIII.181f.

One point needs to be stressed. Our examples of (3) are examples of propositions that are already in the minds of the interlocutors, and as such already responsible for their multifarious but related opinions. The propositions are well known *topoi*,⁵⁹ made use of in the logically correct place for them. For *σφόδρα* and *ἥρως* are typical examples of the unlimited, the "more or less".⁶⁰ Plato is investigating the content of minds. Furthermore he is investigating them in the mind. It seems that one of the special things about dialectic is that it is that it uses no "physical senses". It does not go out of its way to verify that water is wet by dipping its hand in a pond. It is enough for dialectic to remember that water is wet. Now using the word "remember" introduces the idea that at some time I have felt or tested that water is wet. But this is a red herring. Plato is simply not yet interested in the process by which a perception becomes a denizen of mind.⁶¹ Using the English word "remember" is misleading in this respect. Hackforth has translated the memory words very often by "bear in mind". In fact one can only have acquaintance⁶² with the object of dialectic if one is in the mind. In the *Philebus*, pleasure and goodness are "pure pleasure" and "pure goodness". The operation therefore takes place in the mind and not in the experience. Plato describes the venue brilliantly:

19 c 6 ff

Φιλόβου γὰρ εἰπόντες ἡδονὴν καὶ τέλει καὶ χαρὰν καὶ
 πᾶσι στίβοις τοιαύτη ἐστὶ, οὐ πρὸς αὐτὰ ἀνταίτιες
 ὥς οὐ ταῦτα ἀλλὰ ἐκεῖνα ἐστὶν ἃ πολλοὶς ἡμᾶς
 αὐτοὺς ἀναμνηστικοὺς ἔχοντες ὁρῶντες, ἐν ᾧ
 μνήμη παρακείμενα ἑκάτερα βασανίζονται.

This is a rather good summary of what Plato thinks is happening in a socratic conversation; for there is no doubt that *ἐκεῖνα* refers to those

59. Arist. Top. 163 b 22 ff; Sorabji 29 ff; citing Solmsen, 1929 pp. 170.

60. Phdo 93 ab.

61. If indeed he is interested later.

62. The word is used without prejudice.

unseen subjects of Platonic interest good, mind, knowledge, which here seem to share the ontological status of (pure) pleasure, delight etc. We may omit consideration of the bearing of this passage on the persistence of the Theory of Forms; and simply notice that information has been passed into the "memory" to make it fit for using in dialectic. The Phileban mind is greatly expanded and more populous place than mind in the earlier dialogues. This is reflected in the description we get of dialectic. For now ~~we~~ do not merely retreat into our minds and talk to ourselves: we have cinema shows in our mind as well, to help account for error. Now it is absurd to think of Wordsworth recollecting his daffodil in tranquility before daring to make a scientific pronouncement on the length of its bugle horn. According to some theories, he could 'bear in his mind' an image of the daffodil, which, if he were very brilliant he might be able to measure as fishermen measure fish. But that cannot be Plato's meaning.

I suggest that our description is not a description of mental images, but of the world of dialectical discussion. After all, where does evidence come from in dialectic, if not from the memory? Plato's much criticised⁶³ proof from the watchdog⁶⁴ is an example. For when Socrates is in doubt about the possibility of combining aggression with gentleness, he thinks the point is "proven" by the existence of tamed watchdogs. He remembers this

fact, while in a state of aporia, by dint of considering the course of the previous argument (καὶ ἐπὶ ἀπορίας τε καὶ ἐπισκεψάμενος τὰ ἐμπροσθεν). Facts are "inminded" (ἐννοεῖν) i.e. their relevance is seen cf. 375 a; 375 οἴεσθαι; 376 κατόψεσθαι (is not a report of experience). At Theætetus 190b Plato seems to have used an anamnesis-

word when requesting a report on what is possible for the mind. It is an intentional variation of the more usual ἐννοεῖν (ἀναμνηστικῶς δὲ ἐν μνήμῳ εἶπες ἔπος σεαυτοῦ ὅτι).

63. Popper, K: Open Society vol. I p. 51, 149. Routledge Kegan Paul 1969.

64. Rp. 374 eff.

This is regarded as a weakness of Socratic method - that it does not leave room for inquiries into fact.⁶⁵ But the explanation of this lies partly in the situation of the discussion - knowledge must either be discovered, or learned from someone who knows. In either case, something has to be known beforehand viz. what we are looking for; and in the latter case, the investigation often takes the form of a search for a sufficient reason for holding the opinion imported in the first place. Nor is this procedure so wide of the mark - because I am looking for knowledge rather than for fact, my main interest is in the reasons why such and such is held to be knowledge, which is a matter of reasons. Ferreting them out, or even conducting a normal and natural discussion resting on what all reasonable men accept or ought to accept - this is a matter of exploring the content of their ~~minds~~. No great emphasis, either in the ordinary theory of memory or in the argument for the theory of Recollection, is placed on how those opinions got there.⁶⁶

It is clear then that Plato's theory of memory is highly developed, even if the Phædo and the Meno are ignored. The theory of memory proper seems to be an inheritance from an earlier thinker, probably Alcmaeon; but where the earlier theory may have been materialistic, Plato's theorising does not concern itself at all with its material elements. The nature of memory is quite discontinuous enough to qualify for a place in genesis, without reference to "physical matters". Plato was more interested in the succession

æsthesis → mneme → empeiria → techne

into which he interpolates theories of logos, at suitable points of transformation. This "ordinary" theory as he states it in the Phædo is

65. Vlastos, G., intro. to Protagoras (trans. Jowitt and Ostwald) 1956, XXXVf.

66. cf. Ackrill, J.E. Studies presented by G.Vlastos 1973 p.186.

indistinguishable from a theory of conditioning; and anyone claiming to the possession of knowledge on this is near to claiming that he remembers it because it happened many times, therefore it must be the usual thing to happen. Plato changes this: passive memory cannot be used as a means of discussion in the fields in which Plato is interested. Yet it was a standing assumption of the time that if a man knows something he has either learned it (from a master) or discovered it (for himself)⁶⁷. In either case his continued knowledge of it is due to his memory. Plato uses this theory as a framework, without being satisfied with it. Certain elements in it he is content not to question because in his view they are adequately dealt with in the theory. He was content to relate for example the durability of memory to the intensity of frequency of the perception. His opinion on the mechanics of how memory "happens" seems to be summed up in one word - *πολλὰκις* ; and if one remembers something because one has seen it often, then one learns it by the same means. He knows, too, that pleasure oils the memory. But apart from matters of educational horsesense⁶⁸ the theory of the relation between perception and memory, and how one becomes part of the other, does not interest him very much. Within the theory he wanted to make room for dialectic which is an active pursuit of knowledge originating in the mind, and not the passive reception of information. There is a polemical tinge to his "theory of mind": it seems to come into being in a campaign against the ordinary "phenomenal" theory rather than as a construction in its own right. For Plato is interested only in the dianoetic side of things. The dianoetic side of knowledge is best revealed in the practice of dialect. Memory plays a considerable role in the dialogue, but an active intelligent role. It came to be thought of as one of the guarantees of the integrity of an argument. It links one argument to

67. Archytas fr.3; Cratylus 543b A; 439 B; Phaedo 85c.

68. For five analogies of memory in Plato, taken from S.S.Tigner, see Sorabji p.37 ff.

another. Like dialectic it requires constant rehearsal and reexamination. In the Philebus we have a snapshot of dialectic taking place in the memories of the participants. Memories are the stuff of which dialectic is made. We see how, in the following passage of the Republic 474 c 5 (after Cornford)

" 'Here, then, is a line of thought which may lead to a satisfactory explanation. Need I remind you or do you remember that a man will deserve to be called a lover of this or of that, only if it is clear that he loves that thing as a whole, not merely in parts?'

'You must remind me, it seems, for I do not quite mind what you mean'.

" 'That answer ~~would~~ have come better from someone less susceptible to love than yourself, Glaucon...! " Needless to say it is an argument Socrates means based on 'facts' Glaucon ought to remember, or know, from his own experience but does not.

I am suggesting we need look no further for the source of the titular theory of anamnesis found in the Meno, Phædo and possibly the Phædrus. Such a provenance would explain why the role of perception in the perception of a tree is nowhere investigated in the dialogues. Plato seems to accept the ordinary theory while claiming that ethical matters require a special sort of remembering - dialectic. From this point on the dominance of dialectical procedures spreads to most areas of the "mind", for which it provides the models. I take the theory to be an explanation of why the results of dialectic are so satisfactory, when no one has taught or otherwise inculcated the information. Obviously, the information is in my memory. "I recall it" is a perfectly acceptable way of accounting for my knowledge of things dialectical.

What calls for explanation is why we are first told of the theory in a mathematical context.

Any correct statement coming from the mind must come from the memory, only if all correct statements have been learned or discovered previously, by hearing (from a teacher) or in some other way using one's

sense organs. This is just the assumption readily made in Plato's time; and the sort of theory in correspondence with which he elaborated his own doctrine: by accepting and reversing his opponents' theories on their own assumptions.

III Recollection in the Meno

Commentators are very dissatisfied with the Meno proof. They are not sure how far it is meant to be a proof, nor of what it is a proof, Bluck interprets Meno 86bc to mean that Plato himself did not think he had proved that learning is, Recollection, though he admits that Phaedo 73a calls the Meno passage a proof.⁶⁹ Perhaps the best way out of this initial difficulty is to 'recall' that 'proofs' (ἀποδείξεις) can be good or bad, strong or weak at this date. Moravcsik points out that, for it to be a proof, Plato must consider every alternative to instruction and recollection and eliminate them.⁷⁰ Plato does not do so, but I suggest^u that Plato is working on a generally accepted theory of memory viz, that it is the faculty out of which we answer technical questions, then it is quite effective to leave us stranded recollecting things we have not been taught. Taylor calls the passage an 'illustration of the principle that 'learning' is really 'being reminded of something', i.e. 'the following up by personal effort the suggestions of sense-experience'.⁷¹ Klein makes the best choice by calling the passages an epideixis⁷² and it is certainly intended to show off a technique. As we shall see, some of the conditions of a genuine Meno, e.g. a genuine aporia, have been aimed at, but it is sufficient for Plato's purpose if he can point to a well known fact of education, and interpret the fact on his own theory. Granted that a rigorous proof a metaphysical matters is

69. Bluck: Meno 1961 p.11, n.2.

70. Moravcsik, J. 1971 Learning as Recollection (ed. Vlastos 1971) pp. 53-69.

71. Taylor II p.137.

72. Klein, J. A Commentary on Plato's Meno 1965 p.175.

not required in the Meno, it remains unclear what the Meno experiment is about. First, even the method of the experiment is in doubt Taylor says: 'Yet Socrates has 'told' (the slave) nothing. He has merely drawn diagrams which suggest the right answers to a series of questions. "Following in this tradition Gould claimed 'the *ἀποδείξεις* *δοθέντες* of the slave are concerned with the particular geometrical figure which Socrates has drawn for him"⁷³ The consensus of opinion seems to be against this. Gulley argues on the ground of Cratylus 436 of and Aristotle 41 b14, that the *διδασκαλία* to which the slave is taken according to the Phaedo is a proof and not a diagram.⁷⁴ However, in his later work he says "As for the use of sensible diagrams, this is in accordance with the normal procedure of Greek geometers. If Plato had meant in this way to suggest the value of sense-experience as an aid to recollecting it is surprising that no mention (by italics) at all is made of sense-experience either in the dialogue with the slave or (subsequently)⁷⁵ Vlastos has investigated the questions most fully. The demonstration is intended to apply also to sciences other than geometry (86e).⁷⁶ He claims a portion that the boy's "two blunders are miscalculations, slips of the mind, not of the eye"⁷⁷ and draws attention to the abundant hypothetical optatives⁷⁸ (e.g. 84 d5). But Vlastos tends, as we shall see, to overestimate the pedagogical and underestimate the mathematical elements of the epideixis. ~~He is~~ as willing to admit that the slave is told to answer in advance, but says the slave also

73. Gould, Plato's Ethics p.136.

74. Gulley, C.Q. 1954 p.197.

75. Gulley, 1962 p.11f, So Dorte, K. Phronesis 1972 p.209 n.10.

76. Vlastos, G. 1965 Dialogue vol. iv p.145 n.4.

77. op.cit. p.151.

78. op.cit. 150 n.10.

remembers the answer because "he cannot cite Socrates' attitude towards p as evidence for its truth".⁷⁹ It seems indisputable that no attention is drawn to the fact that there is a diagram, not is any clue given about the slave's ultimate epistemological state that connects his failure to attain knowledge with the limitation of his right opinion to this specific square.

Doubt has been thrown on Vlastos' solution by deeper examination of the mathematics involved. The question is not about the rôle of the diagram, but about the nature of geometry. The mathematically more sober of these attempts is Gaiser's.⁸⁰ He points out that two main questions are asked of the slave (a) how many feet is it (82c/d) (b) how long is it? (82d7, 83e1) Now (a) requires a definite numerical answer; (b) admits an answer in terms of irrational magnitudes. At 84 a1 Socrates changes his tactic and says:

"Damit ist unverkennbar angedeutet, dass die gesuchte Grosse grundsätzlich (his italics) nicht durch Zahlen bestimmt werden kann."⁸¹ He points out that Socrates begins to solve the problem by taking the "great" and the "less" - that is, by initiating a progressive approximation. Now it was known that the progression is infinite and Plato mentions the "series of fractions which form the successive convergents to $\sqrt{2}$ "⁸² at Rp 546b ff and he may have been acquainted with the "method of three means".⁸³ In the Meno, we are taking the first step toward Theaetetus classification of irrational numbers. The Academy is already occupied with the status of irrational numbers. Gaiser then

79. op.cit p.158.

80. Gaiser, K.: Arch. fur Gesch. der Philos. 1964 p.240-92 esp. pp.257-64.

81. op.cit. p.258

82. Taylor II p.137.

83. Gaiser p.259 n3 citing Becker 1957 p.67/8.

elaborates the philosophical significance of the passage in terms of the assimilation of mathematics to ethics and ontology. Malcolm Brown⁸⁴ finds a more specifically mathematical function for the experiment "Plato disapproves of the slaveboy's answer" because he disapproves of non-arithmetical geometry that consents to accept irrationals in the first place.⁸⁵ "Plato is criticising geometry for claiming to be able to assimilate any given size to square form" p.(91). Plato uses a special juncture in the history of mathematics to discredit geometry. To prove it Brown is obliged to posit a period when mathematics believed such a thing between the ~~floruits~~ ⁵ floruits of Theodorus and Theaetetus. He finds Archytas ~~mai~~-present in the dialogue. But much of his argument relating to the history of mathematics is fine-drawn and conjectural.⁸⁶ He claims that the situation at 83df is a realization of Archytas DK.A.19, in which Archytas proves that it is impossible to inset a geometric mean between any two numbers which are in epimoric ratio (i.e. where the differences between each number is equivalent to a number 1:2, 2:4). On the authority of ^{Tannery} ~~of~~ (Mem. Scient. III 1915 p.81/2) he cites an "Archytas" method for generating approximations to quadratic irrationals, to explain DK.A.19 which is a piece of Boethius. Whether all this machinery is reliable or even necessary, I doubt; ~~Wordo~~ I think there is much common ground between the Meno and Archytas fragment 3. But the essential point of both arguments is that the mathematical aporia is a genuine one: there is no way of proceeding to a solution by the routes Socrates has used up to 84a.

84. Plato disapproves of the Slave-boy's answer' Rev. Met. 1967 pp. 57 - 93.

85. op.cit. p.87ff.

86. op.cit. p.78ff.

Brown agrees with Gaiser on the translation of 83 eff. "If you don't want to count, at least point to the sort of line" (*καὶ ποῖος*). He develops as follows: Those questions with which Socrates elicits answers to the main question (what size must the required line be?) are exclusively *τί-* form before the interruption, and exclusively *τίοιον* - form after it". This links with a similar opposition in the rest of the dialogue.⁸⁷ He claims the boy in no sense knows the answer at the end of the process because no mathematical argument has been given. Now if we examine the last section of the proof we find that the language of that passage is ostentatiously impure by the canons of the Republic. Use of "becoming", "is to us", "adding" are enough to show that Plato could not have admitted this section was good, mathematics.⁸⁸ But Brown goes too far: he translates *γίγνεται γὰρ* at 85 a3 rather as "So it may be" expressing the interlocutor's dissociation of his reply from any judgment about the rightness and wrongness of the answer. This interpretation defies the dramatic appropriateness of the piece. Why should the slave adroitly disbelieve?⁸⁹ He claims that the section is "essentially an exhibition of a sophistical course of argument" and emphasises the reverberations of 'Sophistai' (85b). The noble slave apparently pierces sophistical machinations at a glance.

The main things wrong with Brown's argument are as follows:

(a) It has the slave "recollect" erroneously rather than inadequately (b) The Rp. passages claim that though practising

87.. op.cit. p.60, 64f.

88. p. 62 ff.

89. p. 66 f.

mathematicians talk in this way they do not understand their science in terms of the motion picture jargon. It is appropriate that an ordinary maths lesson should be given in the informal jargon. (c) It is true that Plato takes advantage of the properties of incommensurability, but it is just as likely he is emphasising the role of construction in geometry. This is continually represented by Plato and Aristotle as a blemish on mathematical thinking that ought to be eradicated or neutralised⁹⁰ (d) The argument puts too much stress on the meaning of *poios*. We suggest that the vocabulary is idiomatic rather than technical. To take *poios* in what follows as 'qualis' in opposition to 'quantus' is frigid. All it really means is 'qui?'

ἀλλ' ἀπὸ ποίας; περὶ ἡμῶν εἶπεν ἀκριβῶς καὶ ἐμὴ βούλη ἀριθμεῖν ἀλλ' δεῖξον ἀπὸ ποίας

The question is taken up again at 85b in the interchange

Σω: ἀπὸ ποίας γραμμῆς; — Παι: ἀπὸ ταύτης

which is hardly an answer in terms of quality. Examples are abundant of this idiom a conversation use of *poios* expecting the specification of an individual for an answer, rather than a quality

Euripides' *Orestes* cf. Theet. 161 b6f; Phil. 25d4.
Menelaus: ἦ γὰρ εἰκάζιον ζῆν σε; Orestes καὶ κρατεῖν γεγῆς
Menelaus: ποίας; Orestes ἐν Ἀργεὶ τῷδε τῷ Περικλείῳ

where it carries overtones of scorn (See L.S. I, IV)^{89a}

ποίας is the word for Socrates' request almost from the beginning.

The answer envisaged is successively a ratio (82 c10, 83 c3)

and a lie (83 a5, 85b2) Plato does think it possible there are

90. Gulley 1962 p.14f also connects with construction (i.e. non-reciprocal analysis)

89a το ποῖον is common without surprise Soph. 232 d5; 235 b3, Phil. 38e, 39c.

ways of coming to an accurate knowledge of this question even though the line involves irrational magnitude, and it may need thinking about (85 a11, 83 e11 ἀκριβῶς (e) The point of the proof of ignorance is that neither a diagram nor a wrong rule are sufficient to yield a new fact, but a new approach and a new construction are instantly appreciated. The proof depends on construction, and a construction is the sort of thing a mathematician must "think of", "chance on" in his own mind. The direction of thought may be irreversible.⁹¹ (f) The mathematical step to which Brown objects is 85a, that the boy assumes all four diagonals are equal. But this is "inbuilt" ⁹² obvious since diagonals are the equivalent parts of equivalent squares. Certainly it is not proven. But then it has the same sort of likelihood as the other "rules" the slave used (e.g. 84c) But this time it happens to be right. (g) It is perfectly possible that Plato would require a proof of this proposition and that would constitute the aitia logismos of 98 a3 (not as Brown has it the "computation of the root").⁹³ It is not clear that an answer in terms of numbers is superior to an answer in terms of line, since the rule extrapolated from the number section is the wrong rule, and therefore the answer is wrong anyway. To make the point of the passage into a comparison between arithmetic and geometry misses the point because it gives no link with the rest of the Meno except an ad hoc one. Now as Vlastos has pointed out, there is a Wortklang between 98 a3 and 82de: διττὰς λογισμῶν οὐ λογισμῶν γεῖται. The point of this must be that in geometry (or geometrical arithmetic) an aitia is required. It is difficult to see what aitia would be required

91. Gulley 1958 p. 1-14.

92. Moravesik p.68.

93. 95 n. 71.

(at our present stage) of arithmetic if not a proportion. Be geometry requires more: an examination of the aitia is the only way of "computing" geometry. Computation is wreathed in inverted commas for the purpose.

It appears, then, that rather more is at stake than the merely psychological process of detaching the boy from his trust in his own onconsidered opinions and in Socrates' reinforcement.⁹⁴ For this seems to be a case in which there is no rule, but only a solution i.e. a different and essential piece of knowledge is required to solve the puzzle. The slave is able to appreciate the solution, and this constitutes a grade of knowledge. The solution could only have been reached by abandoning the usual algorithms and constructing a figure. Of course the slave's grade of knowledge is not yet technical knowledge. Still less can we agree with Bluck that mere "further questioning along the same lines as before and the use of evidence already obtained in the course of the reduction to perplexity elicit the correct answer".⁹⁵

Second, the language used is not the language of good mathematics, but of ordinary mathematicians speaking to each other in a vulgar idiom. It does not seem excessive to extrapolate some of the criticisms made of mathematics made in the Republic and apply them to the Meno. The Meno mathematics is not rigorous, nor does the slave really learn. Plato might well have thought the whole of geometry slightly shady because of the need for something like an "irreducible spatial intuition" I can find no increase of inappropriate language in the section following the aporia, and there is no reason in the language to suppose that the proof is more impure after

84. cf op.cit. 158f Vlastos.

85. Bluck's Meno p.16f.

84 than before. Also it is difficult to get clear what Plato regards as the role of the diagram. Vlastos points out that the argument is intended to apply to all knowledge (85e)⁹⁶ but this is no argument that Socrates has not availed himself of the special properties of geometry in the proof... and then simply asserted (as fact requiring investigation) that this is true of all sciences.

We should not be in such perplexity about the mathematical bearing of the piece if the method Socrates used on the slave was obviously ~~not~~ mathematical. But the method's roots seem to lie in non-mathematical teaching situations; though as we have little idea of how maths was taught at the time, we cannot be sure. The use of the question only method suggests Socrates only, and the points of correspondence between the "maths lesson" and dialectic are too numerous for us to dismiss Socrates' implication that he is applying dialectical methods to mathematics, and showing that they also work there. Given the same material as a mathematician he produces the same (or a similar) result by non-mathematical methods of pedagogy. Of course, he knows the method he is using has a mathematical basis, but it is not important for his purpose to make this plain. Similarly though he avails himself of the use of diagrams, because a maths instructor does so, he wastes no time on the fact that they are diagrams, ^{or on} ~~and~~ the nature of the figure.. Socrates induces first a false reply, then explores two (related) likely numbers and proves that neither is required and no other numbers ^{is} possible.

96. op.cit. 145 n5.

This is the state of aporia which leads (by a mechanism never established) to the a third and successful attempt at the problem. At 84d he begins in effect ²⁵ $\lambda\chi\eta\zeta$. The mathematical background is hidden; and it is made to seem as though the only thing required was the recognition of aporia. In fact, of course, Socrates is 'playing' on the slave. For what the point is worth, nowhere does Socrates attribute knowledge of what is to the mathematician, only knowledge of what is such.

The obviousness of the Socratic manoeuvres have led the same critics to suggest that Socrates has taught the slave despite his denials. I think that the overall impression is of the slave's malleability. Gulley and Moravcsik go further. For Gulley, the point is that the slave can recognise that certain propositions are true.⁹⁹ But we may point out that the recognition of the truth does not produce permanent or rational knowledge. Moravcsik claims that the Meno theory is a theory of inference (at least partially). The slave must understand the question and relate to one another in order to give an answer at all.¹⁰⁰ But I suggest that Socrates is only concerned to point out a 'real analogy' between what happens in the outward questioning and what happens in the boy's head; so that Socrates does not dictate the boy's answer so much as enact the process taking place inside the boy. Here the fact that the mathematical aporia is a genuine one comes into its own. All mathematicians, not just the slave, have to rely on Anamnesis to solve this problem or discover the proof that established the validity of this solution. This is not to reinstate a faculty of mathematical intuition, but simply to

99. op.cit. 12.

100. op.cit. p.61, 65.

97. 83 d2.

emphasise that, by some mental process, the calculation was once made and the proof once discovered in the absence of an obvious method - how? by dialectic with a man's self, says Socrates.

This question is linked to the further question of what the slave has recollected - is it particular? is it general and a priori? What is the limit of range of anamnesis? Are the Forms involved? For if there is a concept of triangle already existing in the boy, he presumably shows it by 'getting it in three' instead of in six etc.; for a sense certainty cannot be the required criterion. What the boy gets is true opinion which can be worked on - thus knowledge is thought of true opinion plus. The plus is simply repeated dialectic... and possibly metaphysics. Gulley says 'None of the metaphysical distinctions associated with (the doctrine of Forms) when it is explicitly presented in the Phaedo and later dialogues are to be found in the Meno. Thus no attempt is made in the Meno to distinguish the perceptual and conceptual elements in experience.'¹⁰¹ But to argue from this that Plato was not aware of these distinctions, or had not worked out the theory of Forms at this date, strikes me as gradualism gone wild. An equally likely explanation is that Plato is limited by the occasion to the demonstration that dialectic works in a maths lesson; why? Moravcsik argues strongly that some 'entitative persistence' in the memory is a desideratum of the argument.¹⁰² We suspect that the principle of explaining the 'Meno' from the 'Meno' alone is not a ~~sound~~ principle - the work, because of its inadequacies, cries out for a key.¹⁰³

101. Gulley 962 p.19.

102. *op. cit.* p. 58, 67

103. cf Gaiser K. 1964 *op. cit.* passim, Loyre 1968 p.7-17. Introduction to Plato 104 86a 6/8.

It does not argue directly but hints at deeper meanings and a more extensive 'logical' power than Socrates is willing to reveal. It seems to me we require a theory of Forms to explain why we are interested in the slave's right answer.

β Nevertheless I think we can learn more about the stage of Plato's thought by asking two questions (i) what is the relation of 'Meno' to the 'ordinary theory of memory' ? (ii) why if the matrix of the Meno theory is dialectical, is it transferred, in the introductory work, to a mathematical setting? (i) The Meno avails itself of the techniques of ordinary memory theory. Frequent anamnesis fixes the memory more firmly - and begs all questions. This coming to the forefront of a memory is also the completion and clarification of it. As it becomes clearer so it becomes more accurate. The process is begun by a question, as in a rehearsal, or by a reminder, it is progressive.¹⁰⁴ The process is essentially the same as Critias' (supra). Here it is assimilated to dialectic; and for the conversion of the slave's newly discovered doxa into knowledge, Plato can take advantage of the generally acknowledged power of rehearsal. Something more than mere rehearsal is needed because the rehearser is required to put his questions in many different ways. (Though the Meno refers only to true opinions there is no difficulty for our interpretations in accommodating false opinions). Thanks to the theory of Forms we hope that the true opinion carries with it a field of true opinions. If, by any chance, any pupil fixes on a false opinion, I remove it by generalisation and examination.

Thus the discussion seems to require three givens:-

- (a) the independent knowledge that x is known.
- (b) a relation between experience and memory - e.g. temporally prior, what has not been an experience cannot be a memory.
- (c) a relation between memory and knowledge.

Not one of these requirements is investigated. Habituation accounts for (a) and (c). The whole argument for immortality is made to depend without further question on (b). One has the impression that this is a proof of immortality on the grounds of some else's theory. Granted, it says, that the growth of knowledge is as you say it is: if so, then mathematics for example must utilise the memories of an immortal soul - which you did not expect at all! No doubt is cast on (a) (b) or (c) by the questionability of this conclusion. Let us see how the picture fits 98a.

A man has many doxai. But not even the true doxai are the genuine article, because of their erratic behaviour. One forgets them, misunderstands them, abandons them, confuses them. Knowledge on the otherhand is constant. The change of doxa into episteme is promoted by habituation - because it is underlaid by a concept. The process of habituation is also a process of active recall. But what we recall is experienced before birth - but not in any meaningful sense through aesthesis. The point of my argument, says Plato, on which I most insist is that opinion and knowledge are different things. (98b). The rest of the argument depends on the acceptance of a theory of memory and knowledge that I have inherited but am not entirely clear about. As we all know, ^{seeing} ~~say~~ something is one of the best claims to knowledge, and failing that, a claim to remember having seen it. How much easier it would be, if we had seen such

knowledge in our soul state before birth: since it would fit the only theory of knowledge known to us - the 'ordinary theory'. This enables Plato to avoid exploring the role of reason in knowledge. It also indicates our claims to be able to know or discover additional facts about what we don't know. At this point it might be enlightening to quote Crombie's remarks on the Aviary image. He suggests that Plato there needs the distinction between knowing S and knowing all about S. "That may be the reason why Plato chose an arithmetical example by means of which to demonstrate, that knowing X cannot be thought to carry with it all the true propositions nor even all the a priori propositions into which X enters. An arithmetical example," he continues, "make it very clear there must be something wrong".¹⁰⁵ An arithmetical (or geometrical) example also makes it very clear what the conditions must be of knowing further facts about P when you start from knowing P_1 - P itself or one's knowledge of p must have an enduring structure that can surface a bit at a time. This leads us to the second question: ^P(ii) It is here suggested that the mathematical example is chosen first because mathematics fulfils the specifications of an episteme, at least for most people, and second because of the nature of its object. Meno is no woodcutter who identifies a circle with a physical circle. The paradigmatic rôle of the mathematical object in the Meno may make easier the question what it is that the boy recollects. Attempts to read into the text a distinction between propositions and concepts, between a priori and other truth, or between analytic and synthetic¹⁰⁶ break down for lack of specification in the text. Certainly Plato applies his theories only to mathematical propositions, which shows an awareness that some sort of distinction is required.

105. Crombie op. cit. II, 119.

106. Gulley 1962 p.18, Moravcsik op. cit. p.68f.

Empirical knowledge is not at issue. Crombie, however, notes that the example given elsewhere in the *Meno* of true opinion is 'true opinion of the road to Larisa'. This, he says, 'gives some place to acquaintance. Perhaps we ought to say that understanding is thought of after the model of acquaintance. The man who knows, not by hearsay, but by following the demonstration, that the square on the hypotenuse equals the sum of the squares of the other two sides, has seen for himself these features of squareness which bring this about.'¹⁰⁷ We have suggested that this matter of knowledge by acquaintance is residual. The proof of 'transcendental' anamnesis, sufficiently breaks the back of the ordinary theory of memory for Plato to ignore the remaining points of the theory.

But I can come by a right opinion by accident. It is not clear what makes the slave's attainment of the particular right opinion so important. Two answers, probably complementary present themselves. First, there was no way of getting to the answer along the routes Socrates first outlined - which were the routes that might have presented themselves to the slave. Anything more requires very special knowledge of geometry, yet the slave under Socrates' guidance gets it in one. How did the slave get (or even appreciate) the answer so quickly? - a dim stirring of memory perhaps. Second, we know independently that the slave has learned a genuine mathematical fact, which somehow ought to make it easier for him to learn others. In other words, a right opinion can serve as a starting point for investigation and improvement. Now this right opinion can only so work if

106. Gulley 1962 p.18, Moravcsik op.cit. p.68f.

107. Tigner 1970 *Phronesis* pp.1-4 On the Kinship of all Nature in Plato's *Meno*.

there is hidden knowledge, the tip of the surface of which the right opinion is, The hidden memory will the, with a little help surface itself. If we look back to the introduction to the theory of anamnesis we find that this is all Socrates has promised us.

ἔτα γὰρ τῆς φύσεως αὐτοῦ συγγενούς οὐσης καὶ μεμαθηκυίας τῆς ψυχῆς πάντα, οὐδὲν κωλύει ἐν μόνον ἀναμνησθέντα — ὃ δὲ μάθουν καθόσον ἄνθρωποι — τὰ δὲ πάντα αὐτὸν ἀνευρεῖν, εἴαν τις ἀνθρώπος ᾗ καὶ μὴ ἀποκάρμυζηται.

The slave incident gives us an example of learning which is really recollection, though we call it learning (in other words, in the ordinary way of things, the slave would be said to have been taught something), given this one successful memory, there is no reason an energetic man should not discover all the rest.

The meaning of 'all the rest' is in doubt. Tigner¹⁰⁷ has argued persuasively that it refers to all the other things that can be recollected in the same way the things of the same ontological status viz. Forms. Plato does not envisage a cogito, a master formula, here. But two other aspects are important for us. First, it is an old hope of Socrates' that if he can only be sure of one thing in an argument, subsequent points would present no difficulty. Now the topos may have been given a new meaning in the Meno by reference to the ontological status of the Forms, but our only ground for supposing this is ^{so is} the strange phrase about the 'kinship of all nature'. I suggest, with Prof. Gulley, that this 'kinship' belongs to the mythological setting, but unlike Prof. Gulley

107. Tigner 1970 Phronesis pp.1-4 On the Kinship of all Nature in Plato's Meno.

I think it may connect not with the Pythagoreans, but with such genealogies of nature as Hesiod gives us - in which the Deities have names similar to Forms.¹⁰⁸ This is speculation but as likely to be true as more heavily philosophical interpretations.

The second aspect to note is that we are told a fact about teaching in order to justify a hope about searching. It is the 'searching' point that answers the eristic logos;¹⁰⁹ if even learning is really remembering, then seeking is just as good a way of getting to know things as being taught it. For there is a structure which makes possible both successful learning and successful seeking.¹¹⁰ The success of one seems to involve the success of the other.

The Meno is one of the dialogues making the transition to a 'positive Socrates'. In this transition, religious belief in metempsychosis must have been a godsent shelter from the epistemological storm breaking over his head.¹¹¹ We are free to suspect that much of the storm was unleashed by his own attacks on other 'professions' - his empire building, which can involve him in deeper difficulties than he is aware of. We have argued that the weapons and grounds of his polemic lie in the analysis of the dialectical situation, especially, here, in the role of the memory. The religious element is imponderable, but cannot be responsible for the type of proof chosen, though it may have contributed to the conviction. The Meno is the only work in which Plato uses the notion of metempsychosis without reference to morality. Nor is a 'psychological' theory sufficient to generate the Meno proof - feelings of recognition when you have solved a problem¹¹² might have stimulated the belief, but the stimulus and the argument are not at all the same thing. Of course, our version does rather encourage the notion that Plato criticized the ordinary

theory from the standpoint of a conviction which he was not prepared to defend directly; but he was prepared to defend his analysis of dialectic and the possibility of its generalization from 'conversation' to technical disciplines.

- 108. Cornford, F.M. *Principium Sapientiae* 1952 p.192.
- 109. for this paradox see Moline J. 1969 *Phronesis Meno's Paradox* p.153-61.
- 110. 81 d 4-5.
- 111. Vlastos op.cit. 169; Bluck op.cit. 74; 10.
- 112. Hansing P. *Monist* 1928 p.253 quoted by Bluck p.192.

MEMORY IN THE PHAEDO

At Phaedo 75c 10f Socrates says: οὐ γὰρ περὶ τοῦ ἴσου
 οὐδ' ἴσους ἡμῶν μᾶλλον ἢ ἡ καὶ περὶ αὐτοῦ τοῦ καλοῦ καὶ
 αὐτοῦ τοῦ ἀγαθοῦ

The $\nu\upsilon\nu$ is sufficiently emphatic: up to now the argument has been about 'equal' and 'bigger' and 'smaller' but from this point on it broadens. One could say that the 'equal' was used as an example, but that is to miss some of the potential force of the argument. 'Equal' is a visible property for most people, to be identified through ocular or manual investigation. In fact anyone who deals with 'equality' apart from its instantiations would be thought to be talking in air. We all know what "it is to be equal" because we have examples of the property before our eyes. Yet by 75c 10 it has been proved that when we assess equality with our hands or eyes we are referring ($\alpha\nu\alpha\phi\epsilon\rho\epsilon\nu$) to something unseen. No difficulty is felt (74c) about assuming the existence of an unseen (relation?) equality ($\iota\sigma\acute{o}\tau\eta\varsigma$ or $\alpha\upsilon\tau\acute{\epsilon}\tau\alpha\iota\sigma\tau\acute{o}\tau\eta\varsigma$)¹, but this is no mere assumption of what is to be proved: (a) that $\iota\sigma\acute{o}\tau\eta\varsigma$ is irreducible to $\tau\acute{\alpha}\iota\sigma\tau\acute{o}\tau\eta\varsigma$ and (b) related somehow to judgments about $\tau\acute{\alpha}\iota\sigma\tau\acute{o}\tau\eta\varsigma$. Once this is proven the question becomes: how do we acquire such knowledge if we do not acquire it through the senses. The inadequacy of the senses to that purpose is obvious in the case of a concept like "equal" or "bigger than". Now nothing has been done to prove we get our notions of justice before we are born: instead it is assessed that notions of justice are not derivable from sense evidence alone. As this underivability is common to our notion of equality, and we start life able to judge equal things equal (74b4ff; 75b), it follows that we derive (a sort of) knowledge of the good from our

1. Mills 1957 128f; Rist. 1964 27ff. The equivalence of $\iota\sigma\acute{o}\tau\eta\varsigma$ + $\alpha\upsilon\tau\acute{\epsilon}\tau\alpha\iota\sigma\tau\acute{o}\tau\eta\varsigma$ is essential.

memories of a time before we had the use of our senses. The rule that warrants this conclusion must be something like: where a category has been established by a suitable criterion, what is relevantly true of some members of that category must be true of all. Now the criterion here is essential to the category; if a thing is invisible but knowable, then this knowledge is acquired independently of the exercise of the senses. Whether it is acquired before hand or independently is another matter. The notion that an idea is acquired before birth introduces mythological elements. "There is no answer except at the level of popular mythology to the "where is it?" question as asked either of the forms or of the preexisting soul."² The preexisting ideas seem to have some entitative structure³ - which tempts one into questions like "by what faculty are we acquainted with them?"

The tension between the example of Equal and the general application⁴ (e.g. to justice) causes another dislocation of the schema. For we do not know the first - leastways no one except perhaps Socrates can give an account of the Just, but everyone knows the Equal (74b). Not everyone however can give an account of the Equal - surely it requires mathematical sophistication to approach the problem - but Socrates does say, presumably using the word informally for him, but mortally for his opponents: We know the Equal. Presumably he says this partly because there is no disagreement on the matter⁵; we all agree on what is equal after appropriate tests. But at 76c he claims that not all people know

2. Allen, R.E., *Euthyphro and the Earlier Theory of Forms* p.162.

3. Moravcsik op. cit. 58; supra.

4. Gulley 99f; Hackforth's *Phaedo* 1955, p.75; Dorter, K., *Phronesis* 1972 no.3 p.199 n.2.

5. e.g. *Euthyphro* 765 ff.

the Good (and the Equal?) because not all people can give an account of it. Prima facie there is a contradiction. On the Good there is notorious disagreement, on the Equal there is agreement, but not everyone can explain it as the argument itself shows. Part of what people cannot explain of course, is the nature of its existence and the consequences thereof.

Plato's aversion to allowing technical precision to ossify his vocabulary is well established: and in our own argument there are several examples of the interchange of technical and non-technical word usages. *deivetai* can mean "it seems clear to me" = "it is acceptable to me"; or "this is the impression I get of the thing before me", or it means "it gives the false impression that, Now at the outset of the argument there is no presumption in favour of any particular usage. 74 C6, 74 b7 seem clearly "it is acceptable to me" because we are being asked for our considered opinions. 74 b8 seems to many "give a false impression" because it is contrasted with "being the same". Nothing is said about whether the person to whom "it appears" is duped or not - I am *truly* duped by painted cherries. Some sort of divergence of opinion is called for; so presumably the people concerned are duped. Otherwise there would be a chance the passage meant simply "in addition to 'being', stones have the faculty of 'appearing' deceptively." At 74c I am not sure whether to translate by "Has there ever been an occasion when..." (Dorter⁶, Mills⁹) or as "There is never a time when... they turn ~~unequal~~." (Mills⁸). The rest of this chapter will show that Plato nowhere else appeals to personal experience in this argument, so it is unlikely he ~~will~~ appeal to it here. I therefore

6. 1972 p.203.

8. 1958 p.50 Phronesis Plato: Phaedo 746c Part 11.

9. op.cit. Phronesis 1957 part 1 p.130.

prefer the second version. For equality can give no sort of impression, false or physical. The result is that I class the occurrence as "it seems acceptable" - a statement of opinion. We shall see later that this opinion is a belief about Equality, - that it can never be unequal. The second doubtful usage is 74 d5. Now here we cannot be being told that equal - looking sticks look unequal. The point here seems to be that a pair of equal objects never imposes on us the impression that they are equal in the same way as Equal. Their appearance is to that extent quite honest. So one is left without grounds to choose between. My opinion is "and" this is the impression it gives me", but one can exclude any question of "false appearance". Our conclusion from the survey is that two main uses are opposed to one another. What seems to one, and what seems true but is false. The only instance of the latter use is 74 b8. The question of "sense impressions" does not seem to be important: for it is not relevant to the opposition how the false impression is conveyed. The proof is argued from our opinions about equals and Equal.

The second word of some resonance is *ἰσχυρίζεσθαι* 76 d9) I refer. It is used frequently in legal contexts;¹² and in this sense by Plato at Gorgias 487e (επὶ) ἰσχυρίζεσθαι βέλτερον ἰσχυρίζεσθαι. Before Plato it is used in three striking epistemological contexts.¹³ Though these are insufficient to establish a technical use, the contexts in which they are found make it likely that the word was used in epistemological debates of the time.¹⁴

-
10. cf. Gosling, J.C.B. 1965 *Phronesis* p.151-61 Similarity in *Phaedo* 736ff. p.608.
 12. Stephanus, *Thesaurus* 11 609dff.
 13. *Vetus Medicina* Cap1 ; Cap 1X; Herodotus 11, 23 (cf. 1v.8; Thuc.1. 21).
 14. Regenbogen, Otto *Eine Forschungsmethode antiker Naturwissenschaft, Quelle und Studien zur Geschichte der Mathematik* 1930 iv, 45ff; Diller, H. *Hermes* 1932 pp.14-42, *ἰσχυρίζεσθαι* p. 14f; p.19f; *Hermes* 1952 *Hippokratische, Medizin und, Attische Philosophie* p.400f; 402n; Ct. Kühn J.H., *Hermes Einzelschriften*: Heft 11, 1956 *System...* im *Corpus Hippocraticum* p.47ff; Gomperz, H. *Hermes* 1933 *ἰσχυρίζεσθαι* pp.341-3; Festugière, *Ancienne Médecine* p.41; *AddClouds* 1080.

No evidence but great likelihood connects it with a particular side of that debate - the "experimentalist" who emphasised measurement and therefore aesthesis. In later Plato it becomes a technical word for referring something to a mental image.¹⁶ We must also notice that the word is irreducibly asymmetrical, moreso even than *προσοικεῖν* and *ἀπακρίβειν*, its companions in the argument. One refers a pound of butter to the standard pound but not vice versa.¹⁷

The final linguistic point to investigate before we sort out the argument is the translation of 74 e9: "So we must know the equal before that time:

ὅτε τὸ πρῶτον ἰδόντες τὰ ἴσα ἐνενοήσαμεν, εἴ τι ὁρᾶται, μὲν πάντα ταῦτα εἶναι ὅσον τὸ ἴσον, ἔχει δὲ ἐνδοσετέρως.

Probably the furthest from the text but most traditional is Robin 1926:

"pour la première fois la vue des égalités nous a donné l'idée que toutes elles aspirent à être telles qu'est l'Egal bienque pourtant il s'en fait"

- a very Romantic idea. Variations on the theme are endless, but most translators avoid translating *τὸ πρῶτον* clearly. Hackforth 1955 'that first sight... which lead us' p.75 (So Tredegnick 1954; Bluck 1955). Jowitt 1953 Vol.1 p.428 is better. "the time when we first saw the material equal and reflected." Dorter sees a difficulty but straddles too many fences: "when first, upon seeing equal things, we conceived..." - which reads like a doctrinaire reading of Greek Syntax with the help of a doctrinaire English punctuation.¹⁸

The idiom *ὅτε πρῶτον εἶδον* "as soon as I saw him" is easily comprehensible.

16. Timaeus 26A; Rp.484c; Theaet 184c.

17. cf. Gorgias 487e. Phdrus 237d;

18. Phronesis 1972. p201; Ackrill, J. 1973 p.80f best of all - but see later.

So L.S.J. ^{πρότερος B} III e; L.S.J.'s next example lys. 211b is similar but for some reason translated as "the first time you meet" (Rp. 338c is not parallel). No time elapses between the two events.

A rather different possible parallel is Heracleitus fr. 1. ^{ἀκούσαντες} τὸ πρῶτον translated by Kirk as "when once they have heard it." "^{ἀκούσαντες τὸ πρῶτον} restricts the universality of ^{ἀεί} ἀεί".²⁰ In other examples the sense of the phrase is "first", "at the beginning", "before any time can elapse".²¹

In view of the polyvalence of the phrase, I suggest for 74 e9, that τὸ πρῶτον does not mean "for the first time" but (a) when having once seen the equals we conceived... i.e. the sentence rules out as irrelevant anytime when I conceived Equal without having seen equal objects or (b) 'when having first of all seen the equals we conceived' meaning largely the same as (a) "First of all" gives priority to the seeing of equals, but it does not refer to 'that first time' when we saw equals and conceived..."

I claim in fact that 74 e9 does not record a historical or first occasion, but a typical one. My main reasons for so translating are that if at 74 e9 it was already clear that I knew about Equal before I saw equals (surely rather early) then it is difficult to see why Plato argues in the way he does that this time was before birth. Second, no part of this argument refers ^a to historical event in someone's life. This will be clearer in the sequel.

The second part of the sentence also repays study. The construction is paratactic - which Dorter and Robin bring out by

20. 1954, 70 p.34; Apel 24 e?

21. Eurip. fr. 52. 3ff; Hecuba 287ff.

an "although", but Hackforth, Tredennick, Bluck and Jowitt coordinate. With Dorter and against Robin we take the main clause to be "that they are deficient." The effect of our translation is to make it clear that only one thing, not two, is reflected upon viz. their deficiency. As at 74 d10f the thinking part of mind thinks ordinary things deficient. It does not (and cannot) see them as deficient, nor is a sentiment of their deficiency suggested by the sight of them:

"We conceived that they are all deficient, although they aim at being of a sort with²² the Equal." The "although" as we shall see introduces ^ahalf-explanatory thought, and the weight of innovation is on the later clause. As 74 c4ff shows, Plato does not envisage a double thought, or one thought reminding a man of another thought. A thought is not a perception, nor vice versa.

The connection between "seeing" the reminder and "thinking" of the Equal is left deliberately vague .

Broadly speaking ^{the} argument proceeds by taking a "sensitive" example, and examining the implications of making a statement about it. The argument is not an examination of the structure of perception, but of the implications of dialectical discussion. The only difference is that the topic ostensibly under discussion is the Equal which is not at this point of Plato's development a typically dialectical topic.

Once this point is grasped we see more clearly what sort of dialectical situation the argument is an account of.

We begin in the way we expect of dialectic:

(a) there is a real Equal, as there is a real justice.

This is the first admission of the Socratic. But strangely, we claim to know what this Equal is - and Socrates never openly proves us wrong.

(b) We next claim that (i) Knowledge of Equal is different from the knowledge of perception of equals (73 c8 - 74 b6) but that (ii) both knowledges "obviously" "come from" perceived equals.

One might think it is unnecessary to prove b(i) since everyone will accept that thinking about equality is different from thinking about particular equal things. But Plato does give some sort of proof of it, not by adducing a proof from experience, but by adapting a usual "move" of dialectic, as in (a). The next dialectical move we expect is (b) that the Equal is never unequal: cf. Pths 330 d7ff.

Εἰς φῆμα ὃ ἀνθρώποις οὐκ ἔστιν ἰσότης τῇ ἀλλοτρίᾳ ὅσον
ἐν ἑῷ μὴ αὐτῷ γὰρ ἡ ὁσιότης ὅσον ἔστιν

This move which implies the homogeneity²³ of a Form is adapted for use as the distinction between ordinary equals and equality. Equality never turns out (ἐφ' ἧς) unequal. Now precisely what corresponding property of visible equals Plato has singled out for us will be forever uncertain.

Two readings are possible:

(i) τῶν μὲν . . . τῶν δὲ (ii) τῶν μὲν . . . τῶν δὲ

both of which have found defenders;²⁴ and three interpretations have been given of (i)²⁵ of which two are acceptable, namely that the sentence can mean (traditional) "seem equal to one man, but not to another" or (Murphy) "seem equal to one thing but not to another."

-
23. "the radical exclusion of its opposite" Allen R.E. op.cit. p.74.¹⁷³
 24. Tarrant, D. Journal of Hellenic Society 1957 p.125; Mills op.cit. 1958 p.38 n.1;
 25. Murphy 1951 p.111 n.1; Mills 1957 p.133; Mills 1958 p.51ff; Dorter op.cit. p.207; Haynes R.P. 1964 p.25; Gosling 1973 p.161ff; 165.

VLASIOS

Dorter and Mills agree on rejecting the third: "equal in one respect but not in another." The choice between Murphy and Mills seems to depend on some rather recondite views of the nature of this particular form of "Equal". But the essential thing to notice is that the sentence is a statement of relativity rather like the statement that 'the same wind blows hot and cold' in the Theaetetus. Its visual qualities are incidental. It is a statement commonsense would accept in reaction against the claim that whatever is Equal will always and forever be equal. But the Equal will never be unequal - this is a commitment of the dialecticians. The interlocutor is being asked to clarify the conceptual difference (cf *ΠΕΥΤΑ ΤΑΣΙΣ* (75a2)) between speaking about equal logs and about Equality. Equality is a construction as it were. What we have then is a report of a piece of dialectic- what Ryle would call 'well known opening gambits' but the result of this piece of dialectic is not confusion - because at no point in the argument is the "look" of equal logs relevant to the proof.²⁶ For it requires only a dialectical construction (viz. the Equal) which is by construction different from equal things. The miracle of the proof is that the dialectical construction is shown to be at the root of our "perception" of such a mundane occurrence as a pair of equal logs.

Ignoring for the moment the section of likenesses, we summarise: it has just been shown that our statement at (b)(i) is correct by dialectical standards; and that this implies our knowledge of the ordinary equals is different in kind from our knowledge of the Equal, but both knowledges presumably come from the same source. In other words, the statement at (b)(ii) is absorbed into the argument, but absorbed in such a way that it

26. This interpretation should remove Mill's persistent difficulties with "seems to you" (=Simmiias) 1957 130; 133; 135ff; 1958 p.50 For the parallels show it is the old dialectical question "Is it your opinion" Pths. 330e; Euth.11e4.

coincides with the definition of Recollection. It has been shown that in dialectic we draw on a special sort of object - the Equal, that object is not the same as equal objects, but it seems to be drawn from our knowledge of equal objects. The name given to this unusual situation is Recollection, because it is only into the Recollection scheme that it will fit.

The next section begins fittingly enough with T. 86^c; 74 d4, and it has a different dialectical situation to analyse - "seeing" things. The dominant tense is the present: the interlocutor is not asked to draw upon a lifetime's experience of sad inequalities, nor to look at a pair of equal logs and say what he sees. For the answer given by inspection would not be very interesting. The real question is about your opinion with regard to logs - are they equal as the Equal is? The answer to this question is not simply no, but a relation: they are less than and struggling to be like ~~the Equal~~ (85) the Equal. Obviously I cannot tell this at a glance. Now the asking of that question and the returning of that answer is the new dialectical situation. It is theorised upon in the next question (74 d9) which is a comment upon the "structure" of our statement about the Equal and about equals (74 e6-7). The new question asks whether or not a man who has made the previous admission must not first know the Equal before he knows equals. This question is our old friend "how can I tell you what virtue is like when I cannot tell you what virtue is?", and as such its reformulation tells us not about what the state of mind the man looking at things is but what it ought to be. It is the mind of the good Platonist interlocutor who draws on all his present knowledge in order to answer the question. There is no Cartesian stripping here.

Thus the issue is: (i) when I say the equal logs are not equal as Equal is, what is the full state of my opinion on the point? - The answer is quite simple - all these equals wish to remain being

(equal) for ever and in every way²⁷ and instead they pass away. I am in fact saying that x is different from X and that when I see x, I think of something different, namely X. (ii) If this is the case, must I not know X already? - The answer to this question is more difficult. A certain amount of "influencing" is done by the metaphors, but the argument does not rest on those, however likely it is that Plato, like Descartes, thinks the Form is prior because it is more perfect. The move rests on the assumption that I refer (asymmetrically) something I do not know, x, or have just come to know, to X, the knowledge of which is different from the knowledge of x I must then have remembered it (73 c6f). In other words, I have not taken my knowledge of the Equal from equals: I think of it coincidentally, as if I had been "put in mind of one thing by something else."

So, he says, summing up (cf ἄρα ἀλλὰ μὲν καὶ τότε)
74 e9. "We must have known the Equal before that time when it occurred to us, after once seeing equals that all these (equal?) things fall short of being like (of a sort with) the Equal, though they aim at that condition."

The statement^{it} analyses ~~the~~ refers not only to the rather frivolous objection that we only got the idea of an Idea of Equal long after we had seen lots of equals; but to the empiricist argument that any thought of Equality is in some way related to the thought of equals. Plato maintains instead that Equality can occur to one in the absence of an equal - if we have a good metaphysical memory presumably. He is still hammering his point about the difference between ἴσος and ἰσότης; but now he has established the relation of Equality with the seeing of equals: in so far as our seeing of equals involves Equality (i.e. insofar as it is scientific, is part of knowledge) the knowledge of Equality is prior and

independent. The addition made to the argument by the conclusion at 74 e9 is that I say to myself when looking at equals that all equals are inferior to Equal.

The next admission is at 75 a5f: one consequence of having known the Equal before seeing it is that apparently I have never been acquainted with it. For if I can only "think" it ($\alpha\upsilon\tau\omicron\ \epsilon\upsilon\gamma\epsilon\nu\omicron\eta\kappa\epsilon\iota$)

) as a result of my senses then either I perceived it and know it, or have not perceived it and do not know it. But the argument goes further - it claims that the exercise of sense faculties is what prevents us from perceiving Equality, though admittedly it does not do so in so many words. If it is not through sense-perception that we know the Equal and sense perception is our only way at the moment of knowing it, then we must have known the Equal before using our senses, or not at all. But we do know what it is ex hypothesi. ¶ The dialectical situation is generalised at 75 b11

to include all knowledge given by the senses:

$\epsilon\kappa\ \gamma\epsilon\ \tau\omega\nu\ \alpha\iota\sigma\theta\eta\sigma\epsilon\omega\nu\ \delta\epsilon\iota\ \epsilon\nu\nu\omicron\eta\sigma\alpha\iota\ \delta\epsilon\iota\ //\ \mu\epsilon\tau\epsilon\ \tau\alpha\ \epsilon\nu\ \tau\alpha\iota\varsigma\ \alpha\iota\sigma\theta\eta\sigma\epsilon\omega\nu\ \epsilon\kappa\epsilon\iota\nu\ \tau\epsilon\ \delta\rho\epsilon\gamma\epsilon\tau\alpha\iota$

We notice that the clause following $\delta\epsilon\iota$ is what a man says in his mind. The clause represents the appropriate thing for the mind to say to itself when presented with a sight of anything. It still refers to the considered judgment of the interlocutor, which is not founded in the main on the "evidence of the senses". From ever so extensive a use of any faculty it is impossible to conclude that the self same faculty is inappropriate for the job underway. So here it is mind not sense perception that has decided the latter's character and status. The meaning is simply that when using sense-perception a man must think that all these things are inferior...

But what do I do that involves this knowledge of equal?

Surely when I realise that Equality is invisible, eternal and has the other properties of Forms, whereas equals are vapid and visible, I ought to refuse to call equal by a name deriving from Equal. But I do liken these vapid equals to the Equal, though as

we shall see mere 'likeness' does not entitle me to do so. For 'likeness' can be a symmetrical relation whereas Plato needs an asymmetrical relation. An x is like an X, but an X is not like an x. Similarly Equal is the name of x because of X but not of X because of x. This relation can only be known one way - from the Form to the particular. So if, in the world of sense, we name equals 'equal' correctly it must be because we know the Form and not vice versa. It is only this additional premiss that will yield Plato's conclusion; for it makes the Form of Equal an essential prior element in an adequate judgment of equals. This, as 75 b6f. tells us is the ability in question: I am capable of applying to particulars those constant criteria which are the mark of the Forms alone as entities. If we did not have this prior knowledge, we would not be able to handle the information given by the senses. As the importance of this knowledge is so radical, it must be pushed back to a time before we use our senses at all (75 c12) and when we do use our senses later, we are simply regaining lost knowledge. That the possession of this prior knowledge is necessary to a rational being is simply not argued in the passage. The passage is not a proof of the theory of Forms, it points out merely that the immortality of the soul is a sort of rider to whatever led to the formulation of the theory of ideas in the first place:

καὶ εἰς καθόν γε καταφύγει ὁ λόγος εἰς τὸ ὁμοίως
εἶναι τὴν τε ψυχὴν ἡμῶν πρὶν γενέσθαι ἡμᾶς καὶ τὴν
οὐσίαν ἣν οὐ νῦν λέγεις.

As commentators point out, the Theory of Forms is used in the Phaedo long before it is argued for; and so the fact that the relationship between Form and judgment is used in my interpretation of the argument and without being explained ought not to be regarded as a weak point of the interpretation. For when Plato says learning is recalling, he is not making a statement

about all learning, but about the particular teaching that he imparts - namely the learning of the Forms. Just ^{as} ^a mathematics lesson has been shown to be recollection, so a dialectical lesson is shown to be recollection. The reference to 'learning' I suspect, is specific and pointed: Learning ^{of} this particular new discovery is a case not of something new being taught us, but of a recollection. Because it is a recollection it has, as it were, retrospective force. One is now committed to its existence but it was always there.

The discovery that there is an Equality is not made by everyone. But once it has been made it transforms one's notion of what everyone else is doing like one of the so-called discoveries of the contents of the subconscious mind. In the case of "there is an Equal," the effect is more drastic because you are also convinced that, unless the concept had been there all the time, your earlier methods of judgment of equals would have been inconceivable rather than merely unsuccessful. This seems to be the force underlying the generalisation of the present dialectical situation.

We have noticed the extension of reference of the argument made at 75 c10; and found that it was based simply on the fact that the 'beautiful itself' is unseen and so is the 'equal itself'. Neither can be perceived by the senses. We have seen a possible way in which Plato made the link between the necessity of the knowledge of "equal itself" and each correct (or false) act of perception. The same pre-knowledge, and the same corrigibility, presumably applies to the good - that we have a hazy notion of what it is which will become more definite with investigation; and even in mistaken judgments of what the good is some living roots are left for replanting. We have also noticed that the test of valid knowledge at 76 b5 comes straight from the store of dialectic.

Nowhere is the analysis grounded on acts of perception or on any consciousness of the mind and memory as the possessors of a structure different from that of reason. Plato's conclusions are reached by examination, reexamination and reporting of the dialectical process; and by means of the schemata he transfers from dialectic to other fields when he elaborates later more specialised "psychologies" or "cosmologies." The "field insensitivity" of his theories becomes clearer if a further point of my argument is accepted. Equals are not like the Equal and no analogue of visual similarity can produce the transition from particular to form.

This requires some argument on its behalf especially as Dorter²⁸ has argued persuasively that our senses perceive the unlikeness of a particular to a Form in the same perception as they perceive its likeness. Gulley makes it a serious charge against Plato's theory that "having established as fundamental for his theory the relation of resemblance between Forms and particulars, Plato should complicate this thesis unnecessarily by adding that 'so long as the sight of one thing leads you to conceive another, whether like it or unlike, a case of reminder must have occurred.'" (Hackforth (p.68.n.1) considers the effect of 74 c11 is to make the earlier point unimportant). For Gulley, but not perhaps for Plato, "the fundamental point is that recognition of sensible instances is made possible by their resemblance to a Form."²⁹ The imperfection of sensibles is that copies "never perfectly or exactly match the ideal standard constituted by the Form"³⁰ As we have seen, this depends on unnecessary interpretations of the Greek. We follow Allen that there is no claim in the dialogues that instances resemble Forms.³¹ Yet it is undeniable that likeness and unlikeness play a great part in the Phaedo proof - at 74a; 74 b11; 74 e7; 74g.³²

28. op.cit. 208ff; 199ff; Gulley 30f; Huber 349; Ross, Plato theory of Ideas p.23.

29. Gulley op.cit. p.32.

30. p.38.

31. Allen op.cit.69ff; cf Vlastos 1973 n.

32. Dorter 209.

The question of the logical nature of "likeness" does not concern us here.

Before fixing this role we must note a few facts: the first part of the proof 73 c1 - 74 a8 itself splits into steps:

- (i) Recollection presupposes prior knowledge.
- (ii) Recollection is when I obtain a thought as well as a sight which thought is not determined by the sight alone
(Miterkennen, Huber p.348)
- (iii) The typical instances of 'being reminded' are when a lover is put in mind of his boyfriend by a lyre or a cloak, or someone remembers Cebes at the sight of Simmias
- (iv) Reminding is either by like or by unlike in the case of
 - (1) a painted horse reminding us of a man.
 - (2) a painted Simmias reminding us of Cebes.
 - (3) a painted Simmias reminding us of the real Simmias.
- (v) In the case of likes, the "additional affect" (ὑποσύνδεσθαι) is the "minding" (ἐμνοεῖν) of how far short the likeness falls of the original (in the matter of likeness??)

It is not clear how these examples are to be taken, Bluck³³ talks about resemblance or association - which does not give the right contrast. Gulley (p28) talks about resemblance and contiguity bringing it about that Recollection comes either from like or unlike. But this is too weak. Huber seems to think they refer to everyday occurrences merely,³⁴ Dorter (p.199) takes (1) and (2) as examples of the association of image and thing, and (3) as natural resemblance

33. Phaedo p.63.

34. 1964 Anamnesis bei Plato p.349ff.

of image and thing represented. As he takes examples of (iii) to be association of thing and thing by habit, he concludes that there exists an omitted type of recollection, ^{that holding} between naturally related things - which is the Meno case. But this reconstruction goes beyond what is necessary and may give a false impression. For the examples in (iii) are merely examples of how the sight of a tyre produces a different sort of thought - the thought of a boy. Now any theory of recollection has to have a two level structure in that the thing recollected must be significantly different from the reminder. But any relation between the recollected and the reminder will be covered by the statement "it is like and/or it is not like." Of this sort of relation Plato gives three examples. Fairly clearly the relationship between Simmias and his picture is likeness, while the others are examples of unlikeness. Now the example of "thinking of the real Simmias when you see his picture" is hardly a usual case of reminding,³⁵ and Plato is here stretching a concept.

The curious thing is that the step (iv) is apparently passed over at 74 d1f. It is passed over not because of irrelevance, but because the function of the step at (iv) is to make it possible for reminiscence to include a case of "thinking of Equality when looking at equals." The Form Equal is clearly different from equals, and to that extent is unlike. But that is to give it no relation to the equals. If, however, it is likeness that determines our thinking of the Form, as in the case of the painting of Cebes - which would make anyone who knew him think of Cebes himself, in the normal course of things, then there would be no reason to introduce non-empirical elements into our knowledge of equals unless similarity

35. Gosling, J. 1965. op.cit. p.154.

is admitted to be insufficient, It would all be done not be
To Sphera, but by visual and irrational likenesses. And yet
 we recollect Forms, as we recollect Cebes, from their pictures.

It is important to remember what Gosling³⁶ seems to forget -
 that the picture fills the lover with an inevitable disappointment.
 The passage is erastic. This lover's disappointment gives us the
 clue to step (v): I do not think inevitably that the portrait is
unlike Cebes, simply that it is not the fleshly Cebes. The grief
 comes from my *Veris* and not from outside. I then look more care-
 fully at the picture so that I can blame some of my disappointment
 on the artist for having missed something. Now this reading accounts
 for the emotional tone at 75; but it gives no support to a reading
 which implies that the subject perceives the likeness of a form to
 a particular and the unlikeness of a form to a particular in one
 and the same act of perception. To notice the discrepancy I
 require not my senses but my mind (=memory) and my senses, to
 check points of similarity. Not even a likeness can make a copy
 into a substitute or surrogate. These two points are separate -
 things may have points of similarity, but in the case of Forms and
 particulars, no total of points of similarity can add up to re-
 placement, because particulars and Forms are simply different
orders of things, like Simmias and his picture. The "like or
 unlike" codicil is meant to avert these difficult questions (74 c13).

Step (v) is not taken up before 74d - because it is so far
 irrelevant whether Recollection is from similars or whether from
 dissimilars. Nor, it is suggested, is the question taken ^{up} at
 74 d4ff. First *Veris* means qualis not similis. Second, the new
 point is sufficiently made without reference to (v). For we notice
 a difference of sort between the equals and Equal: This difference
 cuts across misleading notions of similarity. Our interpretation

36. op.cit. p.154ff.

of 74 d5ff is consistent with 74 a5ff; for when I notice a picture of Simmias and am reminded of Simmias, I mind that one is a picture, and the other is a boy. Now no-one is in any *danger* of supposing that being reminded of a boy by the presence of a lyre is an example of the nefarious workings of similarity: but they could suppose that being reminded of Cebes by a picture of Cebes is sufficiently accounted for by the 'similarity' between the two things. This is wrong, of course, because I have first to know how to use the picture of Simmias before it can suggest to me the real Simmias. So I have to know how to use the sense-presentation of equals before I can make the jump to Equality, and vice versa.³⁷ The "lover's disappointment" has an epistemological analogue: I am always conscious that what I see is not what I mean by Equal, yet the only reason why equals are interesting to me is because of the Equal. In any case if I 'see' that 'x is and is not F', why do so many people require convincing?

I conclude that not even in this matter of 'likeness and unlikeness' is Plato analysing or taking advantage in his argument of specifically visual or specifically psychological properties. The analysis remains purely dialectical in its frame of reference. But it does seem that Plato may be acquainted with a typical answer to the question "why is this red?" - "Because it is like this (other red thing)," and we have seen that he is acquainted with a theory in which knowledge "arises" as a result of the cohesiveness of particular memories - one like the other. The argument may also be a reply to an "eristic" attack on the Forms - that the Equal is either the same as equals or different, if different, it is either like or unlike them, - the sort of argument pattern we found in the

37. For problems of this nature: Gombrich, E.H. *Art and Illusion* 1968 p.144-52, cf. Gosling 1965 p.157ff (on Cratylus 432).

Gorgias chain.³⁸ Plato bypasses the exclusive disjunction (like or unlike) by assuming that a force like Recollection works in both cases, and that even in cases of similarity, we are aware of a difference;;;. The proof seems to be geared to closing access to the reply: the similarity of objects to Forms accounts for the fact that we "think of Equal when we see equals." It is not a case of similarity since a state both like and unlike must bring into play the real source of the leap from particular to Form - Recollection, which, works from both similarity and dissimilarity.

We have given possible historical reasons for the inclusion of references to "like" and "unlike". But there is a more general reason. Plato usually extends the notion of anamnesis to cover a phenomenon the word does not normally fit. (The proof of course is none the worse for that). Plato is really saying that rational interpretation of the world requires prior knowledge of the Forms and prior knowledge becomes, in the framework of the ordinary theory of memory,³⁹ prior acquaintance.

I receive a letter with a pictorial stamp on it. The picture shows the Petit Trianon. Now if I am reminded by the Petit Trianon of the Hermitage, that is a perversity (or accident) of my nature. But I do not necessarily immediately assume that my letter has come from Russia - though I may be so misled. However, on seeing the picture of the Petit Trianon on the stamp, am I reminded of the Trianon as a building before I can draw my conclusion that the letter has come from France?[?] Reminding is an additional unnecessary stage. Plato is extending "reminding" to include cases of "reading".

38. Cap 11, (1).

39. Supra.

He claims it follows that because the "signification" of the postage stamp is not the Petit Trianon but France, I need considerable prior knowledge to interpret correctly the "signifier". This prior knowledge includes a knowledge that France has 'in it' the Petit Trianon. The problem arises out of the question of the provenance of our knowledge of the signification. It is not derivable from the signifier, but it must be preestablished. Plato is not concerned with the nature of this preestablished harmony between the signifiers and significations.

It is not necessary that the theory should be fully ramified. It could be argued that the interpretability of the signified is a fact for Plato - this is the way the world was made. He does not ask here: "What structure must the world have for me to have knowledge of it?" He asserts that we can identify cases of equality even though we may often mistake them ^{especially} (in our early years!) ⁴⁰ The nearest analogy for this is "recollecting" something: in other words my "likening" of instances to Forms is not done on the basis of a likeness model but on the basis of (partial) recollection. By examining this process Plato hopes to make progress to clearer knowledge of a now widely extended dialectical realm. In fact the presentation of the present argument is ostensibly a case of promoting recollection in Simmias.

Not even the summary of the Meno proof given here seems to fit that case very well (73 a7-f2). For the Phaedo - summary appears to distinguish two stages in the Meno.

(a) the asking and answering of questions. ⁴²

(b) the consultation of diagrammata. ⁴¹

40. 75e?

41. Infra; proof (Taylor); geometrical figures, propositions II.S.J.

42. The separation of the stages is clear in Bury, R.G. *Platonica*, C.R. XX p.13.

The passage seems to suggest that the slave need not have seen the figure before arriving at the answer. The explanation is probably that Plato here simplifies his argument tendentiously. The slave can understand, or deal with, proofs or constructions that he has not met with before if he has been prepared by the method of question and answer; whereas if he were presented with the experiment in reverse, and given the diagram first (and even perhaps told the answer) and asked the questions afterwards then he would not be able to do this. This proves the knowledge has come from him and not from the diagram. But if our interpretation of the Meno is accepted, there is an alternative solution. The first half of the sentence (about asking people proper questions) refers to dialectic; the second half of the summary refers to the transfer of the method to mathematics, in which the implications of the method are even more apparent. The Phaedo proof in fact does for dialectic what Meno does for mathematics; but by using a semi-mathematical example,^{42a} mainly because it is an example of what we do know. Thanks to the nature of dialectic, concepts can be more sharply distinguished from "ordinary" objects. The day to day workings of dialectic distinguish them explicitly, which is often what a mathematician forgets in his speech. Such a solution accounts, too, for the discrepancy some people have found between orthos logos in the Meno and plain (and increasingly plainer) episteme in the Phaedo.⁴³ In the Meno orthos logos is converted into episteme by drilling; the proof that the slave has not been drilled sufficiently is presumably that he is liable to change his mind (97 e6) according to his interlocutors or teachers whims. But in Phaedo, the proof that we know "beauty itself" is simply that we

42a. For a mathematicising interpretation cf. Brown, M. The idea of inequality in the Phaedo Arch.fur Cresh.der Philosophie 1972 p.24-36.

43. Dorter p.209 n.10; Allen 1959 p.173f; Gulley 1962 p.23.

are able to talk about it at all in dialectic: and the proof that we have this knowledge is that we can give a logos of it (76 b4). Giving a logos is the archetypal difference between mathematician and dialectician.⁴⁴ Thus the discrepancy between the dialogues is best explained by the contrast of *disciplines*.

The above was written before I could get hold of Prof. Ackrill's essay "Anamnesis in the Phaedo, Remarks on 73c - 75c."⁴⁵ His translation and discussion, especially the warning against overtranslation (p.181) would have saved me from many unclarities. But perhaps I could make a few comments on the irrelevance of the interpretations:

1. p.182f "To invoke the notion of reminding is to imply the availability of an explanation in terms of associative laws connecting thought contents..." A temporal and causal relation can hold between thinking 'this is a lyre' and thinking of Alcibiades, but not between thinking 'this is Alcibiades' lyre' and thinking of Alcibiades...' Prof. Ackrill is analysing the act of being reminded. Plato assumes certain conceptions and theories about being reminded. Plato thinks that, to be reminded, one needs a reminder that is a mixture of like and unlike with regard to the thing it reminds one of. It is this mixture of 'like and unlike' which makes the relation between our thought of Equal and the equals only expressible in terms of an expanded concept of recollection. The relation between the two categories is fixed beforehand.
2. "... the thesis (at 73 c4 - d1) is false. For the account it gives of anamnesis of the kind of anamnesis that is being reminded - does not include the condition that the y item must have been already known to a person if it is correct to say that he is reminded of it." (p.186)

44. cf Rp. 533c.

45. Exegesis and Argument: Studies presented to Gregory Vlastos
 Ed. Lee E.N. and others 1973 though available only in 1974
 pp. 177 - 195.

Recalling is rather limited for anamnesis. 'Producing out of the memory' might be better. Memory is an active faculty, and the sort of anamnesis meant is qualified by the condition that it should contain knowledge (74 c4/5). How does it contain knowledge? Obviously either (a) because the soul has found out the knowledge for itself or (b) the soul has learned it (by acquaintance or from a master). But (a) is out of the question, because it cannot give the sort of evidence of Forms that it could give if it had found them out, and yet the Platonist is committed to the existence of the Form, without benefit of (b).

3. "In this passage there is little doubt that Socrates is appealing to a doctrine - the theory of Forms - acceptable to him and his associates, but not, of course, to the man in the street ... Plato seems to be drawing attention to ordinary familiar facts about how we all grow up classifying and recognising perceptible objects" (74 E - 75 B)" p.191; 192.

We hope we have mitigated this contradiction by treating both passages as an analysis and generalisation of the dialectical situation. The survey of 'familiar facts' of course undermines the usual explanation of those facts.

4. "A sign of Plato's grasp of what his argument requires is, I think, to be found in the precise wording of 74 d9:" this that I see wishes to be like some other thing there is In making the person himself say this Plato makes him commit himself to there actually being the thing of which he takes this to fall short, and that is incompatible with its being something... he is just now making up." p.194-5 (Ackrill's italics).

Plato is obviously talking to the converted. His argument is meant to make sense only to those people who already accept that there is Beauty. By accepting this, they also find themselves

committed to the rest of the argument. They must reanalyse their traditional theory of knowledge to make room for it. Thus there simply is something it can fall short of. But the man who has made the admission must say to himself when faced with a beautiful, "It does fall short of the Beautiful." Prof. Ackrill's criticism in fact helps to show how different the aims and conventions of Platonic proof are from our own. Plato is still addressing himself to the person, and to persons believing specific things and reacting in specifiable ways.

How long anamnesis survives as part of Platonic doctrine is a vexed question. No context requires us to abandon it, and those commentators⁴⁷ who claim that Plato abandons the doctrine generally base their arguments on considerations affecting the theory of Forms and the method of diaeresis. Scholars⁴⁸ who believe that Plato did not abandon anamnesis believe he did not abandon the Forms and work by demonstrating that no text can be brought to prove abandonment. But as no text can be brought to prove the non-abandonment of Forms either, their arguments scarcely affect their opponents. Others try to find a role for anamnesis in the philosophy of the later dialogues. Crombie, for instance, admits the inconclusive nature of the evidence, but finds a reason for holding to anamnesis in the internal workings of Platonism: "It is true that Plato provides the forms to be, so to speak the objects of reason, but an empiricist would want to say that these are not "objects" in the required sense.. (But Plato) would always have wanted to say that forms can be "known" even without a world of things to partake in them.... and so long as you say this you will be likely to wonder how our concept of equality comes to conform to the nature of equality; and that is a question to which anamnesis is an answer."⁴⁹ Bluck too claims that diaeresis is inadequate without anamnesis, for diaeresis is only an approximative, progressive method. It does not produce true results in the way recollecting true facts produces results.⁵⁰

47. Robin, Platon p.89f; Stenzel Allan p.35-40.

48. Cornford, Plato's Cosmology p.144; Plato's Theory of Knowledge 129f; Bluck's Meno 58ff; Gulley 1954, 209.

49. Crombie vol.11, 147.

50. Bluck's Meno p.54.

If the argument is to be fruitful, scholars must show that anamnesis is essential (or felt to be essential) to the process of learning described in the later works. Unfortunately there is no such evidence, even for the Republic,⁵⁴ and the context in which anamnesis is mentioned are "mythological"⁵¹ or "physical"⁵² or both.⁵³

The two passages in which a possibly continuous theory of recollection of Forms is brought into connection with the developing method of dialectic are at Politicus 285e ff and Phaedrus 249 b4ff. They are both examples of assimilation and synthesis - old and new jostle alongside each other with minimal change in vocabulary and maximal preservation of patterns. The result is that one does not know at Phdrus 249 bf how much is doctrine, how much pun, how much redefinition of anamnesis in terms of the new method of diaeresis. The setting of anamnesis we have been discussing is confirmed with the Symposium's version of the Ascent of Love. The Phaedrus tells us that whenever a layman sees a *ἐποίωμα* of something "yonder" he is struck with amazed desire, and goes no further. These are the people of Rp. 474 dff who think there are many *beauties* and love all of them. Now it is noticeable that the soul does not move from a *ἐποίωμα* to the Form, no matter how 'clear' the sense. It must go by way of things that cannot be seen⁵⁵ and so have no obvious *ἐποίωμα* - these are justice and beauty and the other subjects of our argument in Phaedo. For these have no attractive glitter (*φέγγος*) in their *ἐποιώματα*. But when the soul has recalled that there is a more worthwhile Beauty yonder, then presumably his attitude to the

51. Phdrus 249 b-c.

52. Laws 732 c5ff.

53. Timaeus 42B ?

54. Rp. 518C ?

55. 250 b.

world changes and he realises that the rest of the world is a *ἐκδοσις* too. This pattern seems to me to be cosmology and philosophy, but not an analysis of perception. The memory of Beauty awakens longing in our soul - like the pathos of disappointment in the Phaedo. But the assertion that we know, when looking at x that it falls short of X has gone. The explanation is that the Phaedo argument referred mainly and probably exclusively to those things that have no "glitter", and consequently we are aware that what we see before us is not Equality or Beauty.

The same contrast between the seeable and the unseeable occurs at Politicus 285 eff with an overhang of vocabulary. A few things are changed - more emphasis is put on an eidolon for every sense, for instance. But more serious is the reference at 285 e1 that it is easy to learn through *διότι τὸς ἐκδοσις*; but impossible to learn in this way where there is no eidolon. Bearing in mind that we are dealing with collection, I suggest that the "likenesses" must be reasons for putting things together - whether particulars of genera and species. In the case of the physical likenesses I see no reason why the likeness cannot be the likeness of one piece of coal to another. For example is that a piece of coal? - Yes, because this is a piece of coal.⁵⁶ Much in the late Recollection passages is the same as in the earlier, but the discovery of a method, like diaeresis seems to have produced a re^yinterpretation of the doctrine from inside the new method.

Progress in Plato's doctrine^u made with the realization that many visible and touchable things are "in the likeness" of the Ideas, as well as the great unseeables, like justice. One compares the

56. Supra iii C.

expansion of the realm of Forms noticed in the Parmenides. Both the Politicus and Phaedrus passages appear to contain references to visible likenesses of forms.⁵⁷ Now the Politicus passage seems to mean that in the matter of weaving, no same man will expect you to do more than take him to a weaver's shop, and point at a weaver. But if one must have a logos about weaving, then the logos works through division. In some matters, there are no counterparts of weavers to point at; but as the universe is somehow one, practice in the visible matters is also practice in the Unseen matters, if the method is correct. The upshot is that between the weaver and the Form of Weaving no visual similarity is envisaged. Even in the Phaedrus only some "copies" produce "madness of recognition" in a man; and I suggest that there are many grades of copies, some of which are "striking likenesses" which can deceive a man if he is not careful. This "striking likeness" is not a "visual" likeness, but a "visible" likeness (apprehended in the realm of sense). The appreciation of the likeness is the mind working upon information come by through the eyes. For example, in Socrates' encomium of sight in the Timaeus,⁵⁸ the visual sense is praised because it gives us "knowledge" of circular movement. But ocular astronomy does no such thing: mind, working on evidence, eventually reaches a "picture" of circular motion; and this is a very different matter. The point appears to be that physical phenomena are amenable to the correct application of the same methods as we apply to the great Unseeables. For the method of astronomy or of defining weaving is the method originally worked out for dealing with the Unseen - both the method of "problems" and the method of "diaeresis." Method makes the phenomenal world somehow rational: but the ^{appreciation of the} link of the phenomenal world with the Forms is metaphysical.

57. Skemp: Plato's Statesman 1952.p.76; Gulley 1962 p.120ff.

58. Timaeus 47 ab; Gulley 1962. p.134.

CHAPTER IV DIALECTIC AND MIND

If Socrates asks "Is there beauty?" and the interlocutor replies that there are many, then the interlocutor is avoiding the issue. No one of those many beauties would be more beauty than not beauty. Various reasons have been canvassed for this second assertion, but the most likely is presented by Owen, that the many beauties are beautiful only relatively to something else, what is light is only lighter in comparison to something heavier, and so on. "The incompleteness which so embarrassingly characterises 'equal' in its ordinary applications cannot it seems characterise it when it designates the Form."¹ In fact it is the demand for a non-relative relative that forces the positing of Forms in the first place; for there is obviously nothing in the world of appearance of which it is unambiguously true that it is equal. This sort of argument may lie at the base of Plato's theory. But his methods of presentation of this theory are not totally accountable out of the theory alone.

The missing links that help us to an appreciation of his method lie in the historical dialectic and particularly in:

(i) the realisation that the statement "There are many beauties" is a denial of the assumption on which the question rests;
 (ii) if there is not one beauty, then no sufficient reason covering the 'whole' of beauty can be given why beautiful is not ugly.

(i) Socrates made impossible demands for completely true answers expressed in as few words as possible. The typical situation turns up on the Protagoras at 331 b 9. Is justice holy? A

rightly indignant Protagoras expostulates οὐ πάντες δοκεῖ,
 ἔφη, ὦ Σώκρατες, οὕτως ἀληθὲς εἶναι

1. Owen 1957; in Allen 1965 p.310.

He bursts into a relativistic tirade at 334 when asked if good is useful, because there are many sorts of useful things. But dialectic demands seamless answers: *ἀμείνων* requires in reply and answer *τῷ* without exception² and is out of the same stable as *ἀκριβῶς ὡς λόγῳ; τὸ κεφάλαιον, ἐγγύτατα, τὸ παλαιόν, ἡδονα* 3 - hallmarks of the impossible, but in using them, Socrates, like the Hippocratic writers, is a man of his age.

(ii) So if Socrates cannot convince an interlocutor that there is one beauty, he complains that the interlocutor proposes something no more beautiful than not beautiful. The interlocutor has rejected the only safeguard against relativistic chaos.⁴

Now Glaucon is familiar with Platonic methods and agrees without more proof that:

Rp. 475 eff.

- A. (i) (the) fine is opposite to (the) ugly P
 (ii) they are two things (i)
 (iii) therefore each is one thing (i) (ii)
 (iv) the realm of doing things is separate from the realm of philosophy.
 (v) There is beautiful apart from ugly.

The acceptance of (i) makes it possible for a man to discover or be taught the truth (476 cd; 479 e; 480). From 479 a ff we get a characterisation of the opinions of the polymaths.

2. Bury ad Symp. 206a citing 183 d; Ptg. 331 c; Phdrus 244a; Hackforth Mnemosyne 1957 p.128 ad Theaet. 188 d 3; de Strycker 1968 p.160 f with a survey: no exception, no additional determination, approximative.
 3. Ptg. 329 c 6; Gorg. 453 a 7; 452 e 9; 450 d 10; 450 b 9.
 4. Compare Gallop 1961; Savan 1963; Vlastos 1972 for this passage in Protagoras.

- B. (i) nothing beautiful is never/not ugly P
 (ii) there are many beautifuls (i)
 (iii) each one is both beautiful and ugly (i) (ii)
 (iv) each is no more beautiful than ugly (i) (ii) (iii)
 (v) neither one nor both can we know firmly (Παγίως νοῦσι)
 (vi) there are no beautifuls 5

The difference between the two "methods" is partly that by Glaucon's method, answers are possible to questions involving "the whole of" beauty; but the polymaths' opinions never get as far as admitting the possibility of the question. Their reply that there are many beautifuls is both a statement about the world of appearance, in which the many beautifuls are all we have, and a denial that there is one beautiful; but the positing of one beauty is Plato's method of procedure. The beauty has for its "opposite" ugliness. Because the pair are in a relation of mutual exclusiveness, dialectic about them is possible. But the many beautifuls are a different case, because none of them are more beautiful than another when produced as replies to dialectic.

The pattern persists in Rp. 523 b ff. We identify the soul with the good dialectician, and sense perception with the bad dialectician. The senses provide nous with an aporia which nous solves by separating the long from the short and the heavy from the light. This nous can do because she already thinks in terms of length and shortness, heaviness and lightness separately.

Rp. 524 b ff

A. Soul

- (i) length is opposite to shortness P
 (ii) they are two things (i)
 (iii) therefore each is one thing (i) (ii)
 (iv) each is other, different from the other (i) (ii)
 (v) in nous they are "seen" or "thought" separately.

5. For evaluative opposite and Forms, see Allen, R.E. Rev. Met. 1969 p.325-350 For different attitudes to 'one' compare Gadamer 1968 p.17.

(va) what is big and little? bigness and smallness?

(vi) there is a bigness

B. Aesthesis

- (i) ^{one}length comes together with ^{many}shortness P
- (ii) one is not seen as one thing. (i)
- (iii) one is no more one than it is many (i) (ii)
- (iia) each is the other, is not different from the other (i) (ii)
- (iv) in aesthesis one and many are seen compounded.
- (iva) aesthesis makes no advance to the real.
- (v) there is no bigness

Now the pattern with which we are presented is one in which aesthesis is elenched by nous. I am not suggesting that aesthesis produces a genuine aporia: after all the compresence of opposites is simply the remarkable thing about the world of sensation. But if we remain in this condition, we can say little about the world, or at least about 'qualities' like 'equal', 'beautiful'; the dialectical investigation begins, as we have noticed before, after the initial elenchus, with a purification of the objects of discourse. The new objects of discourse have the peculiarity that once split into "genuine" components - beauty/ugliness etc. - they do not again split.

It is not clear what relation A (iva) bears to the rest. The question might indicate the soul's puzzlement at the nature of its own objects, the existence of which it is obliged to accept. The question would then refer to an aporia the soul will solve as a result of its separation of one from many. But the mathematical passage 525 d 5ff shows us that the mind is not troubled about such a situation. In other words, being able to formulate or question which requires a single answer is the exit from the aporia. Aesthesis, on the other hand, is in the aporia, and cannot formulate the question. Mind is analogous to dialectic and mathematics because it deals with

things separately. Now the correct handling of such 'separate' objects, as the first part of the *Parmenides* suggests, requires an appreciation that the apparent compresence of opposites in the new realm requires a more rigorous investigation, simply because the Forms "radically exclude their opposites". Yet these are the appropriate subjects of dialectic.

We can surmise then that aesthesis refuses to give a "simple" answer to the question "what is long?" This refusal need not be interpreted as telling us only that sight cannot discover by inspection, or even "imagine", a length which is not short in comparison, with another length. It tells us also that aesthesis, being a bad dialectician does not make the division between 'long' and its opposite required to produce a simple answer to the question "what is long?" Now the separation of justice from injustice is also a moral commitment, though the separation of heavy from light is not powered by the same fuel. But the apparent peculiarity of aesthesis (that sense reports opposites) has its analogue in the dialectical sphere by which we suggest it has been influenced, the principle is that knowing one of a pair of contraries entails knowing its opposite, especially in the matter of good and bad.⁶ But only the dialectical *techne* enables one to make a distinction between the two; free of this knowledge, sense can only "sense" both of a pair of opposites, and has no reason, of itself, to choose between them. We may suspect that for Plato wherever a similar distinction is made, that distinction is an example of dialectic. A structure rather like that of continuous dialectic has been imposed on our "mental processes."

6. *Phaedo* 97 d 5; *Diss. Log.* 8(9); *Charmides* 173 d ff; *Theaet.* 176a; Aristotle *passim*; *Top.* 156 b 10 ff: how to conceal a conclusion.

So why make the step to the one beautiful? The answer to this must be sought in more properly philosophical connections.⁷ But the method of presentation, the 'picture' of nous deciding an issue because of its ability to deal with unsplittable objects and seamless questions and answers, after aesthesis has been reduced to returning an answer that is a formula of disproof - not more x than y - does ^{OWE} something to dialectic. Behind the argument is the threat of premature elenchus: you say "this is big"... and "this is big"... leading to inevitable collision. You will be reduced to silence if you refuse the only way open of giving me a "simple" answer. The argument implies dialectic. The pattern may also help to make clearer how it is that the theory of Forms is described in Book X as a method of positing 'one thing' for the many individual things for which there is the same name.

The form of the analysis of the "thinking" of the Heracliteans⁸ Our interest lies in what Socrates calls
 ἡ τοῦ Ἡρακλείτου μέθοδος (183 c)
 The flaw is the abhorrence of fixity. Heracliteans cannot keep to question and answer, they are indebted to a book; their brevity is misleading, and each time you ask a question they assail you with a fresh minted answer (καὶ νῦν) (179 eff).
 Plato gives his own characterisation of the school. ^{Ep}

7. Owen, op.cit; Brentlinger, Phronesis 1972: Incomplete Predicates and the Two World theory of the Phaedo; Nehamas, Rev.Met. 1972-3: Predication and Forms of Opposition in the Phaedo.

8. Theaet 152d; 156 f; 179 e.

Op. Cap V

He points out that the previous "subtle" descriptions of the changing universe of perception cannot be put forward by people who accept as arche that all things are in motion. Socrates distinguishes two sorts of change; given their arche, Heracliteans must "answer both". As Socrates shows, this is in effect neither, for neither quality nor faculty remain. The Heraclitean abolishes both, leaving us with an echo of the Republic that there is nothing to think firmly of (*ἄρῃς νοῦς*)⁹ Thinking firmly is a dialectical privilege. The half-way house of the Protagorean initiates who keep a rather conservative world picture (150c6 - 157b7) is dialectically illegitimate because their arche is not sufficiently subtle to maintain it.

Accordingly in the succeeding section of the Theaetetus object and faculty¹⁰ are restored, though more on a deliberative model than on a "seeing" model¹¹. A criterion, or sense-tool, for judging reality is expressly denied¹². Another difference is that the new section is very much about the sort of opinions that are usually expressed in explicit statements; and it deals with those opinions as if they were in no way the creatures of sensation. For despite appearances he does not deal here simply with the connection between sensation and opinion but with the more purely "mental" features of opinion. The relations between opinion and sense-perception, I suggest, maybe dealt with in the Dream section: the enquiry into doxa beginning at 184cf is more limited in scope. We consider only its ostensible form.

9. Vide Cap. V.

10. Theaet 157 a 4; Rp. 479 c 4.

11. The word is used loosely, see Gosling 1968.

12. 186d; 178 b9f; 184c 78.

The analogismata of the soul are almost what we have come to expect: 185 af.

- A
- (ii) there are two objects P
 - (iii) both are (185a9 = 185c5) ii ?
 - (iiia) therefore each is different from the other (ii) (iii)
 - ((iiib) and the same as itself (ii) (iii)
 - (iv) the both are two, each is one (ii) (iii)
 - (iva) So one may examine their likeness to each other (cf. $\sigma\omega\varsigma$ - perhaps 185b6)
 - ((v) there is/ there is not/ a similarity)

The missing step in the pattern is Step (i) that F is "opposite" to -F.

The 'proof' is not about contraries - which are what the individual senses perceive. The emphasis of the pattern shifts to 'difference' which is felt sufficient to produce the 'two things' clause at (iv). The doubleness is still considered necessary to the proof, but 'sound' is not opposite to 'colour'. The schema has moved easily from relative opposites to mere difference, and the way has been smoothed by number. But the persistence of the schema should prevent us from falling into a "sense faculty" trap - and supposing that on this theory we add a sight to a sound and make a baby out of them. Nowhere in our passage as we shall see if this sort of construction envisaged. Cooper¹³ argues that the common things (i) - (iva) are common to all or several of the senses; but gives no reason why a double-object should have been chosen initially for the proof, and seems to attribute no particular sense to the items on Plato's list, whereas the schema tells us clearly that the two objects are chosen because they are different.

13. Phronesis 1970. Plato on Sense Perception & Knowledge p.123-146, 129, 134 n14.

We must reject an interpretation like: I perceive a sound - I perceive a sight. My 'common sense' tells me that both are.... For there is no real evidence even in Aristotle for a 'common aesthesis as a special sense:¹⁴ and the *Koina* of Aristotle, which are, like shape, common to more than one sense, are clean contrary to the sense of the example chosen here of 'an object of sound and an object of sight.' It might be arguable that one perceives existence both through hearing and through sight. But what sort of similarity does one perceive in this way? the similarity that both are? Would Plato ever say that a sound exists and a sight exists?

It is best to remember that the ostensible purpose of the passage is to restore quality and faculty. I suggest Plato means that what we think we perceive through our individual senses is not only a sound or a colour, or even only colour or sound, but we think we perceive that it is colour and that it is sound i.e. the qualities. Having perceived both that it is colour and that it is sound we have perceived a necessary difference between the two objects even though the particular colour or the particular sound may not be an object at all or may not belong to different objects. In other words, Plato has removed us completely from consideration of the objects of individual senses and talks instead about the modalities of all perceived objects.

So, should we ever opine what we feel are our sense perceptions, we are immediately involved in saying "there is colour, there is sound". It is in fact a consequence of having divers senses, that our perceptions of how things (τὰ ὅντα = real things) stand, or how things work, are dealt with by none of them but by all the senses working miraculously together to give a coherent picture. But Plato does not mean this. His rule that one sense faculty cannot perceive the object of another sense faculty warns us that he is not talking about

the perception of fingers, which can be perceived synchronously under varying forms by several faculties, nor is he talking about shapes or thickness or movement which can be perceived by both touch and sight independently; nor can he be talking about properties common to objects of the senses as objects of the (individual) senses - which is a wasteful way of filling up the world. I might then admit that all there is is a series of resonant or coloured events, as is the Protagorean world, whereas a Platonic universe should contain fewer "things" than are given as the separate objects of each sense. Nor can Plato mean that the "common thing" is applicable only to objects that can be perceived through more than one sense - which would be an oblique way of talking about fingers, or primary qualities. Nor can the "common things" be common as names are common to particulars, because this is an unmotivated importation from possible practice elsewhere.¹⁶ He must mean qualities that can be perceived only through more than one sense.

Now in order to perceive something as sight does, hearing is useless: so, in order to perceive that something is sight, according to Plato, a list of dialectical statements is necessary. These *Koina* must be common to sight as sight, and sound as sound, and therefore cannot be divorced from the relation between sight and sound. A claim to perceive sight, and not sound, is according to Plato a matter of *doxa* and not of sensation, because only *doxa* can command the concepts necessary for distinguishing between the two sorts of things. For my claim involves the belief that sight and sound are in some way real.. To say of something that it is sight requires as much of a rationale as to say of it that it is two.

14. Hamlyn, D.W., *Koine Aesthesis*, *Monist* 1968 p.195-209.

16. Cornford p.105; Cherniss A.C.P.A. p.236 n.141; Cooper op.cit. p.128 n.8.

Our version prevents Plato from begging the question¹⁹. He does not say 'we perceive a sound', so a sound must exist. He is not even claiming that 'exists' is a very special word and can only apply to the sound that I have heard after further investigation! He says simply that one cannot perceive by sight that one perceives through sight. For sight only 'exists' in relation to hearing, and both kinds are (different kinds). I complete the verb to be with a predicate, but we must remember the fact that 'to be' is also a value word - really is, is a fact.¹⁷

The essential of the argument is that the mind considers two things, not one, and any two things have other things in common. In the case of sense evidence it is particularly clear that to consider both the objects of sight and the objects of sound, one needs a third faculty. The principle is the same in the Sophist when the Stranger points out that "being" applies to both movement and rest, and therefore must be a third thing, common (κοινα) embracing (ὑπερεχοντων) both.¹⁸

It ought now to be clear that the method used in the schema is analogous to a sort of division. This change explains the omission of (i), which is no longer relevant, and the addition of (iva). But the schema gives us our diaeresis very schematically. For it is true of the comparison of any pair of 'objects' that they must be validly different, and that a general distinction must be made between them before we can appreciate which similarities are valid and which are not. Similarities are only valid between 'objects' that are, in respect of that similarity, congeners.²⁰

17. Cf Cooper op.cit. 140; Xenatis, J: Kant Studien 1957/8 vol.49 pp.167-181, esp.p.176f, 181 Kahn C.tt. The Greek Verb 'To Be' Foundations of Language 2 1966 p.245-65.

18. Sophist 250 b7.

19. Holland, A.J. Phil.Rev. 1973 An argument in Plato's Theaetetus p.101.

20. eg. Soph. 231 a6.

But the concepts one uses to establish the possibility of a correct judgment of likeness must apply to both objects and must be of a third sort for the purposes of the comparison.

So if we perceive that we are seeing colour, then our perception that colour is being seen is not itself a seeing. If colour is to be a valid perception then we cannot identify our perception that it is a genuine sort of perception with a series of 'sights' of coloured events. Coloured events may be part of sensation, and come into existence only when perceived. But holding an opinion about it, or stating a claim about whether sight is a valid perception or not is a matter of doxa. We need the dialectical list to make good our claim that we perceive as opposed to the suspicion that we are simply influenced by an event. Presumably in the realm of sensation, I can experience the most subtle shades of red, and this immediate awareness of red puts me in as close touch with the red event as I can wish for; but I cannot (claim to) perceive it unless I can distinguish the parts of the total confused experience. For my mind must break the combined sensation of all senses into components - sight, sound and what have you. These are not distinct as sensations but make one big blur.²¹

What makes doxa more "rational", I suggest, is that it divides into limited kinds - sight, sound and the like, so that in order to see something validly, I must know I am seeing it, and any doxa will present itself to me in one of these kinds. Now it is difficult to see what sort of perceptual difficulty Plato could have started from,

21. 184 d 30; Rp. 524 c 4.

He does not read like an Englishman who starts by using only his eyes, or only his ears, and receives each packet of information already stamped sight and sound. He seems to envisage an act of analysis carried out on sense information. My sense evidence comes in a block - both hearing and seeing in my conversation with Theaetetus, and it is quite different from my knowing Theaetetus. If I consider my sense-evidence, or am asked about it as sense evidence, I must first split into two kinds, by giving a clean answer to: what comes from my ears? what from my sight? But this is only possible if sight and sound are self-identical and separate. The argument appears to be that certain information is not given to individual senses, but to another sense, or at least is present in all the senses working together. But the task of this sense is comparison, abstraction and the like; so that its affinities are with discursive thought, deliberation. The nature of the "information" it adds to the information given by the individual senses is the sort of information associated with dialectic. It appears that Plato has not started from a perceptual situation so much as from a dialectical sort of problem.

The persistence of our pattern has suggested an interpretation; but the acceptance of the interpretation depends on the overall picture we may have of Plato's attitude to sense perception and knowledge. But for us the important points are that Plato in the Theaetetus is purifying several positions, whether they are all his own positions are not; and the pattern of what the mind must ask itself before it can validly get to the point of knowing something has persisted from the Republic. The variations ^{in it} appear to coincide with different dialectical situations - the artful elenchus practised on sense perception; the raising of the objects of discussion to a level at which contradiction, and therefore

truth and falsity, becomes serious, in nous; and the handling of such objects in doxa, when for example we have to decide a question of similarity.

As regards its presentation, at any rate, Plato's "doctrine" of mind looks like a reflection of dialectic; and as dialectical methods shift in emphasis so a new reflection appears in mind.

Having got to the stage at which we realize that truth and falsity involve "opinion", we proceed to convict Theaetetus' discursive mind, his reflections and calculations, of not being infallible. It is not enough to blame sensation. Formally speaking, we assume a constructive dialectic complete with the "correct" objects. But, of course, the question of the nature of those objects is more acute because we are asking *ourselves* how people think themselves into mistakes.

II ERROR IN THE THEAETETUS

If the Theaetetus passage on error is an examination of the causes of error, then ^{the} range of its choice of the sorts of error to investigate are highly idiosyncratic. The sorts of error investigated seem to fit dialectical situations, and to be handled by special dialectical methods. Second, Plato assumes throughout that we have knowledge, and that because we have knowledge we cannot make the sorts of mistake that Plato knows quite well are possible in minds and processes. But if we have knowledge, they are impossible. This is more than reminiscent of the irony of elenchus. We shall suggest that Plato here describes successive stages of dialectic, transferred to dianoia, and at the end of it, where the successful dialectician should have satisfied himself with a logos, or should have grasped one, we find Plato examining the relation true doxa and logos. By locating the methods in our minds, Plato is able to add, among other things, some sort of correction to his naively expressed apparent earlier belief that mind (or its conversation with itself) is a sure way to the truth. The quirks of the argument become more explicable if the argument is seen as a reflection on dialectic rather than as a direct reflection on psychological processes. The form of the argument mirrors the stage of dialectic examined in the argument. Now as we are only pointing out a form of argument, and suggesting that it is reported elenchus, we are not concerned with what the objects of a true or false belief are, but only with how they are described.

Our scheme fits both the main schools of interpretation. For Prof. Ackrill¹ argues, principally on the grounds that the sorts of error envisaged are propositional, that Plato here lists the sorts of error that can or cannot occur; and

discovers that Plato makes a Humean analysis of the identity of physical objects. Bondeson² argues that though the sorts of error envisaged begin to be propositional, the knowledge in the Wax Tablet and the Aviary envisaged as compound knowledge of objects of which we have knowledge by acquaintance only. This means both that Plato is dissatisfied with the theory of knowledge by acquaintance, and that he has not freed himself from it. But as we are analysing the method of presentation of the arguments against error, and finding that they have a historical, recapitulatory component, our analysis will fit either interpretation.

Rightly or wrongly Socrates concludes at 187a that he must switch his search for error entirely away from the notion of the investigation of sense-perception to the investigation of the notion of doxa. But he begins by ignoring it; and stating the "logic" of knowledge - one either knows or one does not know. Now this is true of knowledge by acquaintance; but we are here dealing with doxa, the logic of which may be different. Accordingly the following argument assimilates doxa to seeing and hearing - an additional sort of faculty and a reprise of the argument at 185 b 7. Both arguments are rejected by the interlocutors because they do not fit the facts they are conscious of; but they do settle the limits of doxa in either direction. The thing about the arguments is that they are inappropriate and sophistical - the first is the old argument resting the exclusive disjunction either... or... beloved of the Sophists;

-
1. Monist p. 1966 p.381-402, Plato on False Belief p.395.
 2. Phronesis 1969 p.111-22 Perception, True Opinion and Knowledge in Plato's Theaetetus.

and the second rests on the impossibility of "thinking not one thing." So historically speaking, their role in the argument is initial - the sophistic shocks, the outrageously "logical" ~~destruction~~^{of} what we are almost sure we know. The two prongs of the sophistic attack are that if I know two things, I cannot make a mistake about either, and if I know one thing, then I make a mistake about nothing. It seems a solution that I must have two objects, and two modes of relation to them.

The following argument introduces the notion of logos; and seems to take up the calculating, comparing strand in doxa we noticed at 185 ff.

The sentence that follows the completion of the sophistic proofs has an emphasis that is difficult to catch.

189 b 12.

ἄλλοδοξίαν τὰ εἶναι ψευδὴ φαμεν εἶναι δόξαν,
ὅταν τις (τι) τῶν ὄντων ἄλλο δὲ τῶν ὄντων
ἐνταῦθα ζῶμενος τῇ διανοίᾳ φη εἶναι

Allodoxia has been prepared for by 188 b 4 where thinking falsely is said to be thinking things are something else.³ The new idea is the last half of the sentence - that this exchange is made in the mind. Theaetetus takes it to be specifically a matter of mental opinion, because his mind leaps to ethical questions. A man is mistaken when he thinks that base things are good that is when a man really opines falsely. Socrates forbears to make dialectical capital out

of the apparent contradiction (really - falsely), and concentrates on the fact that it is impossible in dianoia to lay down that a thing is not itself but something else. Doxa, says Socrates, is something you get after the debate is over - the mind which knows both has made a choice: that choice is embodied in the doxa. (190 a 3 *το αὐτὸ ἡδὲ φησὶ καὶ μὴδ' ἄλλῃ*). Doxa is not so much a speech as a spoken decision made to oneself silently. In the light of this notion, Theaetetus must revise his remarks, which were careless.

If the man coming up the path is not Socrates, and I mistake him for Socrates, then I misidentify an object. But the mistake in doxa is not made until I say to myself "The man coming up the path is Socrates" or vice versa. In these circumstances I make a mistake about two objects. A necessary condition of my mistake is that I put two things together to make a statement about them. Now when Socrates refers to synapsis, or tying together, at 195 d, he does not restrict the operation of tying to a mental process linking aesthesis and doxa. Synapsis⁴ is itself a wide ranging motif in later Platonic philosophy. It corresponds to a sort of clever technical philosophical device (cf 195 d 2 *καὶ ὡς πρὸς τὸ ἐπὶ τῇ ὑποκειμένῃ καὶ τῇ* The joining is probably the joining of the two parts that are necessary to the smallest statement,⁵ of truth and error, though what these parts are is left unspecified. There is no attempt to describe an "atomic sentence" comprised of reference and description, subject and predicate or noun and verb. The first essential is that what is true or false should be an opinion, doxa, or statement.

4. Soph. 238b; 238c; 238b etc.
 5. Ackrill p.392; cf Prauss p.60.

Theaetetus agrees that there are certain things a man cannot say to himself - that the fine is base, the unjust just - the odd is altogether even, the ox is a horse⁶ and the two one. No distinction can be meant here between necessary and contingent truths - they are all concepts. Nor are they chosen because it is peculiarly difficult to conquer a human prejudice believing such things.

Taking the standard impossible belief to be "that the fine is base," we get the following possibilities about what it could mean:

(1) there is nothing fine that cannot be bad.

This is a statement of the denial of the Form of Fine, or else the denial that anything can be said to be fine without regard to circumstances. As such it is not a belief formed by ordinary mental processes but an important dialectical belief.

(11) fine is the same as bad: nothing is more fine than bad.

This is a statement of immoralism. Plato may believe that no-one has ever said to himself, only to others. But it has been said, and Plato himself is more than ready to accuse others of saying it.

(111) fine is bad.

This is a straight contradiction, and presumably cannot be made to oneself. Fine is fine, and base is base. No fine thing is completely bad - for there is an irreducible opposition. Nor can I ever persuade myself that even is completely, in every way, uneven. It is the basic principle of dialectic - that genuine contradictions cannot be brooked.

6. Philebus 15B; Theaet 195 d.

The doxai are reached after argument (peithein 190 b 5; ananke 190 e 2). To emphasise that sensation plays no part in the formation of this sort of doxa, we are shown doxa invariant under conditions of sleep, illness and insanity. For doxa in its pure state is not subject to these bodily disturbances. Theaetetus' easy proof of error falls through: to make a mistake it is not enough to be wrong about something. There has to be sufficient reason (Robinson op.cit.p). To make a false statement about good and bad one must have some sort of knowledge that they are different. The good and bad distinction would form the first step in thinking about what course of action in the 'outside' world is good etc. Plato has begun at the beginning. But why after a right beginning do we go wrong? The point is dialectical.

The Wax Tablet is introduced not as a model of perception but as a model of 'learning more'. The notion of learning seems a hopeful model to Socrates because a man can learn what he does not know, first one thing then another (ἕτερον καὶ ἕτερον).⁷ The model of learning chosen is that of getting something from the outside: and this is very much what happens in the explanation of error. Error never comes unless provoked from the outside by aesthesis. Of characteristics specifically belonging to memory it introduces remembering and forgetting,⁸ and differences of quality between persons.⁹ But the imperfection of psychological processes do not seem to be enough for Plato. He insists that the "cause" of error lies in the two-level structure. It is only in the switch from one level to the other that mistakes occur. But nothing is mentioned about

7. There might be a pun here
 8. 191 d 8; 188 a2f; 198 d 6.
 9. 191 c 10; 194 cff.

ἑτεροδοξεῖν, μάταια ἑτερόν τι

the confusion of two memories or of two sensations. This may be simple remissness, or a mistake due to the model, as Ackrill suggests. But it may be that only in making statement A B where A, B belong to different levels is the factor brought into play that Plato emphasises - aesthesis. It is aesthesis as usual that causes error. Two aestheses cannot make an error because they are not a doxa. Thus aesthesis can only produce error in the process of ~~forming~~ forming a doxa i.e. by being a sufficient reason for its being arrived at.

It is important to note that the Wax Tablet may not be quite the mechanical theory of the acquisition of knowledge, that it became one later. In Plato recording on the memory slab may be voluntary.¹⁰ One can record whatever one sees, or whatever one spontaneously conceives. But the process of recording is a special one - like sealing with a signet ring, a sort of registration - so that the impression lasts and is as clear as possible. In any case registration is in some way selective. Now obviously we are not given here a perception theory in which knowledge depends on the strength or liveliness of an impression, the point being that any impression can congeal into knowledge of some sort. Typically in Plato the contents of memory are already knowledge, as in Cap.111, and knowledge is not continuous with sensation. The innovation of

10. 191 d 4; 191 d 9.

the Wax Tablet is ~~the~~ suggestion that a certain sort of memory can lead to mistakes. But Plato shifts the blame from memory one rung down, mainly to memory of what has been perceived, though it is also possible that our memory of what has been conceived may fade. Nowhere does he deal with the question of how I get my knowledge of Theaetetus in the first place. Nothing can get into my memory unless it has undergone something very like registration as knowledge. For instance, my sight of Theaetetus is registered as a sight of Theaetetus, and this entails knowledge. My knowledge of Theaetetus is not affected by subsequent mistakes caused by sensation because my knowledge of him is not the same as my memory of him. I have knowledge of him once for all - that he exists or has existed; but any ongoing or additional knowledge of him is affected by the fact that it comes from sensation.

For example, my knowledge of (or ability to recognise) Theaetetus is not quite knowledge by remembrance of what he looks like. I have, in addition, if you like, knowledge of Theaetetus the individual, with a history and a nature, man etc. At some point, my impressions have been doctored in order to make them knowledge; or else the source of my knowledge is not a sensation. Both alternatives seem possible for Plato. But he seems to differ from the Humean analysis of individuals in that some distinction is made between knowledge and a conglomeration of impressions. My full memory of Theaetetus is not the memory of the sight or sound of Theaetetus, but of a sight, that it is the sight of Theaetetus. Now if I hear what I imagine to be the voice of Theaetetus (192d καὶ ἀκούω ὅτι τινα ᾄδοντι ἀποδοῦναι ἀποδοῦναι) do I fit my auditory sensation to the memory of the auditory sensation of Theaetetus' voice? or to the knowledge of ^{the} memory of Theaetetus? My mistake happens because I fit it to the memory of the auditory sensation of

Theaetetus but not to my memory of or knowledge of Theaetetus.

The model used does not explicitly tell me how I got my knowledge of Theaetetus in the first place. Its main purpose seems to be bringing out a distinction of type between my knowledge and my sensation, in which knowledge plays the [^]role of a form, and the remembered sensation the role of a particular or image.

~~Two~~ possible interpretations present themselves if this is meant to be an analysis of a real error - the sort of thing that happens everyday.

(i) The deliberative error is the stalker's error: if I am tracking a man and mistake a movement in the bushes for a horse when it is really a man taking aim at me, then my error may come under the Wax Tablet. The movement in the bush is a sensation for me but is not a man and does not look like a horse. So when I think that Theaetetus is Theodorus it may be because some perceived sign has led me to confuse the whereabouts of the two. Against this it can be urged that Plato specifies that I must have sense knowledge of Theaetetus and/or Theodorus, by which he means specific sense-knowledge i.e. I must confuse the look of Theodorus with the look of Theaetetus, which is

(2) In the daydreamer's error a man sees a horse which is confused in his sight with the look of a pig. The error is entirely due to having perhaps on one's retina and memory the image of a horse and in one's memory the image of a man. Bad memory-stuff does the rest. But this is surely an outlandish solution, for an error which leads one to look again to see whether I really did see a pig or a horse. (A third error, in which I make a mistake through having the memory of Theaetetus' voice about a taperecorder next door is rare).

Now I suggest Plato is interested in durable error rather than in case (2). His interest in doxa explains his interest in durable error, but he assumes something very like (2) to be at the root of it. If this is so, then it is some confirmation that Plato is working with and //recapitulating his own past diagnoses of error. For in the Wax Tablet, there is only one knowledge, which is unaffected by sensation as far as the model tells us. Similarly there is only one memory trace, and a linkage between the pair. Error enters because of the weaker partner. As a device for showing how aesthesis is responsible for error even in doxa, it illustrates the stage of dialectic subsequent upon the agreement that the true opposites are separate - the conceptualisation stage, the fixing of objects, when the forms are stamped and left untouched by questions about particulars. But because my 'total' knowledge of Theaetetus consists in this instance of the analogues of Form and image, then the statement, or procedure, or the confrontation of the two sense-images, is subject to error. This sort of mistake would be common in dialectic; and an obvious extension of Plato's notion of the unreliability of the world of appearances. But as a mistaken doxa or the cause of a mistaken doxa, it is surely not very common.

In any case a new model is needed - the "techne" model of learning, which covers both knowledge of arithmetic and the rather common fact that mistakes are made in arithmetic. Here no eikon can be to blame. Also there is not much difference between knowledge of an object and the knowledge of a proposition; for discrete propositions like "Six is even" or "Six is sevenish" can quite easily be thought of as objects one grasps; and if one grasps an object, it can be thought of as a bundle of propositions. As Plato is describing here, the distinction for our purposes is not crucial. Our point is simply that the methods of dialectic to date share in the general aporia of the Theaetetus.

As a counter, I count heads and get them wrong possibly because of aesthesis. I also compute ^{it} in my head through the science of arithmetic - and this is what interests Plato - a mistake in a competent technician. A reader is also a technician and makes mistakes, and it is obvious readers' mistakes do not occur in the absence of letters seen on the page. But the letters are not the source of the error, for the error is somewhere in the manner of use of techne. Furthermore it is a frequent error. The recovery of knowledge by the mathematician is not a recollection the opposite of which is a forgetting; for recollection and forgetting could only be said of him if the recollection of 6 or 7 were an extraordinary and not a routine event, and if he forgets the knowledge instead of merely leaving it unapplied, whenever he makes the mistake. He does not even say to himself '6 is 7' in so many words.

Now reading, as far as we can tell, was taught through tables of syllables, whether used syllables or not, as in: ab, cab, dab, fab which were learned by heart. A similar list this time of single numbers only and not in combination was learned by arithmeticians. But the true arithmetician went on to learn the qualities of numbers, and it was his knowledge of the qualities of numbers e.g. ratio, or the tetractys, or the properties of evenness that distinguished him from the counter (logistikos).¹⁸

Having learned in this manner and still in a sense remembering the rule, the technician gets things wrong.¹⁹ It is usually thought that the distinction made is between dispositional and other knowledge.

²⁰
Crombie suggests that it ought to be a distinction between knowing

18. Marrou, H.I.: L'Histoire de L'Education dans l'Antiquite. 1950 p.212f; 218f; 247f; but dates are lacking.

19. Contrast the views of Ryle: Letters and Syllables in Plat Phil. Rev. 960 p.431-51; answered by Gallop D. Phil.Rev. 1963 p.364-76.

20. Crombie 11; 121; Ackrill 1966 p.402.

S x knowing all about S. Hackforth peoples the mind with

πληθος τῶν ποσῶν which it cannot count.²⁰ But what we are told is that the technician makes a mistake about, or does not have to hand, the knowledge of how much a number is, which is distinct from counting.²¹ The case Plato envisages is a case of having been taught (or at least having discovered) the properties of a number, namely that it bears a relation to 5, 6 and $5 + 6$.

Somehow the new machinery makes it easier to understand how one arrives at such false beliefs.

It makes the "learned error" clearer - there are some mistakes one has to be clever to make. But the supposition that one makes a mistake because one knows too much is only good psychology, not good philosophy. Thus we meet again our initial difficulty about mistakes - I make, impossibly, a mistake about A & B, both of which I know ex hypothesis. Theaetetus introduces "bits of ignorance" - about which we know nothing except that their introduction is commonsensical but irrelevant to the issue. It remains true that I choose ignorance in the presence of knowledge. Commentators have tried to work out a feasible theory for Theaetetus by themselves capturing more birds for the Aviary. There might be birds flying round to the effect that $6 + 5 = 12$; or there might be a bird $6 + 5$ which teams up with 12, the possibilities are endless. None of the suggestions can be substantiated and Plato tells us any theory isomorphic to Theaetetus theory is wrong. It is possible that Theaetetus is merely making a commonsense objection to Socrates' disproof of the Aviary theory; and Socrates shows that his disproof still applies. The objection seems to serve to bring out the sense of Socrates' original difficulty.

20. Mnemosyne 1957. ad 197dff. Notes on Plato's Theaetetus, Hackforth

21. For ontological mathematics, Lasserre, F 1964 p. 43-62.

Cornford toys with the idea of complex birds, but thinks that Plato did not recognise the possibility because he was misled by the form '12 (the number we are seeking) is 11 (the number we lay hold of)',²² Ackrill rejects complex birds on the grounds that they do not help - in order to understand the "command for" a certain bird one must first have the bird in hand.²³ Lewis suggests: "The idea that the bird catcher has correctly summed 5 and 7 before (his *italics*) he enters his Aviary suggests that he has a mastery of 12 independently of the Aviary. It is this mastery which he must employ in claiming that a certain bird represents a certain number. It is a belief about the representations in his Aviary, and not something the Aviary itself must or can represent."²⁴ He points out that Plato gives his attention in the Aviary to only (b) of

(a) He believes that 5 and 7 are 11.

(b) He believes that 11 is 12.

(b) is an example of virtual, though not of a psychological belief.²⁵ We pointed this out above with regard to the belief that Theaetetus is Theodorus. Now no competence is required at separating description from reference (which commentators agree Plato does not have) if all the Aviary produces is the answer to the question 'what is 12' or 'what is $6 + 5$ '? The supposition Theaetetus and Socrates make is that the number of numbers, and their strange groupings - gregarious or solitary - are responsible for the wrong answer.

22. Plato's Theory of Knowledge 1935 p.138.

23. 1966 401f.

24. 'Foul Play in Plato's Aviary' p.276 in Exegesis and Argument Studies... presented to Gregory Vlastos, 1973 pp.262-84.

25. op.cit 267, 269.

This supposition, of course, is absurd. The presence of ignorances cannot affect the issue either, because *ex hypothesi*, the man knows what he is doing. So what is the advantage of the Aviary over the Wax Tablet? The advantage partly is that the Aviary covers errors not covered by the Wax Tablet, though little is made of the distinction between the two types of error - in empirical and necessary truths. Second, the Aviary "Knowledges" are all members of the same category, have (unlike Forms and particulars) certain horizontal legitimate relations between congeners. But the fluttering in the Aviary, so like a dream, makes it difficult to establish these relations; or to get ready for the cooking pot the bird one bought last week. One cannot be sure of one's bird until one has it outside the Aviary, in one's hand.

Again the model Plato uses is more appropriate to learning rather than to thinking. Just as the Sophists' pupils carry away purchases - food - in their souls,²⁶ so the arithmetician carries away purchases - food - in his mind: only this time the food is a bird and therefore bought live. When the arithmetician comes to use the bird, he must recapture it, and if he cannot, Socrates says sternly, then he does not know what he has bought. Plato knows that this is an inadequate model even of correct learning, and he probably uses it to show its deficiencies.

The behaviour of the birds reminds me not of memories, or thoughts, but of hypotheses fluttering in dialectic²⁷ when they are not bound by knowledge. McDowell²⁸ and Prauss²⁹ take it that the passage is a correction of the theory of Anamnesis.

26. Protagoras 313c; 314a; Sophist 223 cff.

27. e.g. *Meno* 98; *Euthyp.* 11c; *Phaedr.* 90b; *Theaet.* 155b4; 155c8f;

28. 1973 p.222f

29. 1966 p.152ff.

In Anamnesis we get a correct remembrance: in the Theaetetus we get erroneous remembrance. But I find it difficult to believe Plato would have chosen this particular metaphor to correct the theory of Anamnesis. Anamnesis corrected this particular theory of learning in the first place. Nor was Anamnesis a theory about individual memories, but about the essential difference between knowledge and belief. The process of Anamnesis was dialectical: and its antithesis is the imparting of knowledge in ordinary teaching situations. But the connection between the Meno and Theaetetus is a strong one because they both insist that one must know what a thing is before one can claim to know it at all.²⁸ At this juncture both the Meno and the Theaetetus offer a hypothesis.

It is now becoming clearer what the "dialectical" method is in the discussion of False Belief in the Theaetetus. We begin by ruling out a possibility that Socrates knows only too well is true - namely, that I think I know what I do not know (188c). Socrates spent hours convincing people that they often think they know what they do not know. But his means of doing so was indirect: if you know this, you can tell me - but you are playing with me, you won't tell me. In other words the assumption is always made that the interlocutor knows. Precisely the same assumption is made in the Theaetetus and it is never retracted.²⁹ Now the assumption is first made in arguments in which it is possible to have only knowledge or not knowledge.³⁰ Obviously this is not a satisfactory description of the human condition, and Plato long ago invented an intermediate state, doxa.³¹

28. Theaet, 196d 5ff.

29. 189 e6; 192 a2; 200 a5.

30. 188 c2.

31. Rp. 476 e; 478 a10.

The allodoxia section arises naturally from the preceding section 185 ff, in which the role of doxa is though of as comparing. *In* response to the sophistic shock, the working assumptions of the interlocutor are made clearer. These are assumptions about doxa - that it is about judgments of beauty etc: - that came from Theaetetus: and assumption that came from Socrates - that it shares the nature of logos. The logos is taken both as a string, a combination, of objects; and as a description of statements made in dialectic. The interlocutor is asked to remember, or recall in himself, that it would be impossible for him to say to himself the fine is bad. The remedy for the sophistical shock is once again the examination of one's own beliefs - but this time, of course, with some logical force to back them up. The failure of these assumptions, ^{for the} first time, gives rise to a feeling of aporia - genuine shame (191).

But as yet in the first two arguments none of the distinctive 263. #
properties of doxa has been used. We are given two sophistical
or dialectical standard arguments: 'either you know it or not'
and 'either it is or it is not'. The effect of the two arguments
is to shock. A sort of definition emerges - from the preceding
arguments it is clear that we think error is some form of allodoxia
and it must occur in dianosa. Theaetetus misunderstands his own
point: the question is not whether some doxai are mistaken, but
how any mistaken doxa can ever be formed. For no one errs willingly,
and a doxa is the end of a process. No one who knows the things
he is forming a doxa about can make a mistake: look at the traditional
first questions of dialectic surely a guide to what happens in the
formation of doxa. Theaetetus makes a simple dialectical mistake
(189 c7) which is corrected in the succeeding argument.

Now the sort of definition that has emerged is not pointed:
it is already implicit in the discussion with Theaetetus. Socrates'
first care has been to make it explicit and to fix its meaning.
He purifies it of its more obviously undesirable consequences -
by asking the questions general at the beginning of an elenchus,
but with greater indirection, and therefore more specifically.
Instead of asking is there ~~the~~ beautiful'? Do you say there is
such a thing a beauty? - he goes straight to the point: do you
recognise that beauty and ugliness are distinct and opposite.
Only in the event of the correct answer to this question is dialectic,
and now it seems, doxa possible. Such Conceptual errors cannot be
made. The form of the argument between Socrates and Theaetetus is
itself simply a question: do you accept.. as a preliminary? It
calls on Theaetetus to examine his own thoughts in response to ^α
yepeia as in the Phaedo (190 b2 Theaet).

The third stage of the dialectic still does not rise to
the positing of a statement but the examination of a possible case:
Θεὸς δὲ μοι λόγον εἰπὲν (191 c8) - means: consider the following
as a model. ³¹

The Wax Tablet following is a metaphor or image (~~214~~²¹⁴). Having introduced the notion, the pair return to the beginning distinguish the ways of knowing de novo (192 a1). The argument invokes a distinction between memory standing for knowledge, and aesthesis standing for, let us say, particulars or events. The argument is a set of consequences of that distinction; and the fault of "ordinary" doxa which it diagnoses simply consists ⁱⁿ ignoring that distinction. Keeping the two realms open is the natural consequence of our agreement about beauty and ugliness and part of dialectic. As the eristic says: we do not think horse is a man or man horse unless some sense evidence has intervened (195 d6) - but this absurdity is not a very likely mistake to occur in a visual machine. The Wax Tablet is not a machine. We are dealing with the consequences of dialectical positions.

The fourth section of the proof seems to me almost certainly the hypothetical stage: first the distinction is made between knowing what a thing is, and knowing what it is like ($\pi\omicron\tau\omicron\nu\ \tau\iota\ \pi\omicron\tau\omicron\ \epsilon\omicron\tau\iota\ \kappa\alpha\iota\ \tau\iota\ \pi\omicron\tau\omicron\epsilon\omicron\tau\iota$ 196 d5). This is a truly shameful situation (Cap.11) and we should revise our position accordingly. The sophistical way out is simply to omit those things we do not know - which would leave Socrates, who knows nothing, quite silent. But his way out is to tell us $\omicron\epsilon\delta\epsilon\ \epsilon\omicron\tau\iota\ \tau\omicron\ \epsilon\pi\iota\lambda\omicron\gamma\eta$ and this is a help for us - ($\pi\omicron\tau\omicron\phi\omicron\gamma\omicron\upsilon\ \tau\iota$).³³ This is precisely the way in which the hypothesis was introduced in the Meno.³² So, too, the hypothesis is adopted and posited consciously, without Socrates' committing himself to it, from a store of heard maxims (197 a8).

33. 197 a6; 198 d7; 200 c2.
 32. Meno 86 e1; 87 a2; 87 b5.

A correctly made distinction between two concepts is introduced. Finding the hypothesis is an active search. The hypothesis and the thoughts of the mathematician have been inculcated from outside: once inside they jostle alarmingly, and though one knows what one means, it never seems to be the right hypothesis one has siezed.^{34a} For all these reasons it seems to me that the ties of the Theaetetus passage are stronger with the hypothesis passage of the Meno than with the Recollection; and just as I can find no evidence of contradiction between the doctrine of Recollection and the Theaetetus, I can find no evidence of contradiction between the two hypothesis - sections. But it can hardly be denied that they are different; and I suggest that the relation between them is one of supersession rather than correction. The earlier doctrine, are true - as far as they go, but they do not go far enough.

The dialectical experience the section represents is the experience of not being able to put forward quite the right hypothesis. Under the art of the dialectician, the apparently acceptable hypothesis changes, moves, behaves like one of the birds. At the same time, one cannot tell until after the dialectic whether or not the hypothesis one put forward is correct or not. So, one suspects, the thinker cannot tell which bird he has caught until too late when the bird is already outside the Aviary. The fluttering of hypothesis and birds is necessary to the identification of them. Having identified the wrong hypotheses, one puts back the bird. When the arche is discovered, the fluttering stops and progress can be made.

34. 198 d 2.

34a. Supra. note 27.

The final disproof (200 aff) again depends on the claim to knowledge. If this claim is not made, then the disproof fails. But any man who has arrived at a doxa has claimed knowledge. Howbeit Socrates claims to know nothing - ostentatiously in ~~the~~^{his work}. Theaetetus' brain children are stillborn. Even the examination of Theaetetus' mind in virtue of which he has assumed that most of his opinions are true, or appropriate, or timely, is devoid of knowledge. We all have minds and Theaetetus' mind stands in for all of us. In none of our minds can we find knowledge without the logos, which, one suspects, is an external science. Knowledge is not the outcome of a natural process, but a technical matter; without dialectical skill, no opinion stands or yields its meaning. The dialectical skill mentioned is probably at a special juncture in its history which we may guess at by comparison with the Parmenides and the Sophist.

At Theaetetus 199 e7 Socrates praises (and it appears quite genuinely praises) Theaetetus for the suggestion that ^{the mind} contains pieces of ignorance. What these are is not clear, but if they are pieces of psychological ignorances, false ideas in the modern sense, it is difficult to see why Theaetetus should earn so much praise for the suggestion. But if the point is about the method of dialectic, then the honourable mention is more deserved. For Parmenides recommends that as well as considering it is (or it is F) one should consider the problem it is not (or it is not F). The statement to be discussed splits into two. So in the Sophist we are told to keep to the right hand side of our ^{scut} divisions (264 e10ff); and only by dint of a succession of right choices will we get to the single physis. "Theaetetus is flying", a false opinion, is a choice from the wrong side of the division.³⁵

35. Stenzel-Allan p.127f.

Now in a less intentionally absurd example - say a choice between Socratic instruction and Sophistical or false Socratic instruction - making the choice from the wrong side of the division is a frequent error. Only by holding to the principles under which the choice is made, or to criteria that cut across the similarity, will we manage to avoid the mistake. So Theaetetus touches on these technical matters of dialectic: Dialectician is always faced with a decision between being and not being, a choice between two possibly definite objects, like Sophistry and Socraticism; or between mathematical statements. "Six is even", "Six is not even", which are also definite. What Theaetetus is recommending, then, is that Socrates should show some awareness of dialectic as a method - a method which can be applied in one shape or other to all deliberations. This explanation seems preferable to the alternative, which is that Theaetetus is praised simply for sticking so determinedly to the possibility of error.

Thus Plato finishes his examination of the dialectical situation. Mind which had been placed ("recollection" (I use the word as a passing pun) from which truth entered dialectic has now been explored. The structures found in it are really dialectical structures, and they have the same faults and virtues as their analogues. The result is to make the mind more mechanical. As Plato develops a doctrine more adequate to distinctively psychological events, mind becomes more obviously an unreliable base for dialectic. So far the structure given to mind has been relevant to the argument of the discussion; but in the Philebus, the mind is given a mechanical, passive structure which is used for everyday acts of perception.

The weighty structure seems to be crushing a butterfly.

It is not surprising then, that Mind in the Philebus is reduced to being that fertile source of error, a book³⁶ and a picture book at that. The resources of mind are addressed to a problem expressly excluded from the Republic discussion.³⁷ The dialectical theory turns up in its entirety - the need to decide an issue,³⁸ to ask oneself³⁹ what a thing is,⁴⁰ to form a silent doxa,⁴¹ but with a stronger tendency towards the automatic⁴². However, Plato is dealing with pleasure and therefore with habit. The writing on the mind and the painting of pictures is not a passive matter, in which the man is helpless under the action of his environment. For through his moral choices the man is making himself and his mind - again there is no real mechanism, and no real conflict with the Theaetetus. But having in the Theaetetus and Sophist once elaborated machinery for the purpose of a specific problem Plato finds it easy to transfer the machinery wholesale, or streamlined, to another problem. In the context of the second problem many details will seem to be unnecessary, and give the impression of being elements of an independently existing doctrine; or it may be something in the invented machinery itself that appeals to Plato. The resulting "doctrine" may look so complete, so elaborate and so distinctively platonic a way of looking at mind that the doctrine or metaphor may give the impression of being the results of an examination of the processes of mind and emotion for their own sake. But it should be remembered that the source of the machinery and the problem is more often dialectical than psychological or epistemological; and the machinery is therefore more than the result of an analysis of "the problem of perception" or "the problem of knowledge".

36. 38e12
 37. Rp. 523 b6; Phil. 38 c5.
 38. 38c 6.
 39. 38c 8.
 40. 38c12
 41. 38e 2.
 42. 39 a1; 39 b6; 39 b10; 39 d2.

Many of its more bizarre features seem to find their place given a properly dialectical backdrop.

The problem of error is solved only in the Sophist, with the solution of the problem of being and not-being, to which Plato thinks it is a rider. The warrant of inference from the solution of the problem of not-being to the solution of the problem of error is *mainly* analogical - *διὰ τοῦ αὐτοῦ λόγου* etc.^{42a} The solution of the second problem depends on the same logical principles as the first. A deeper connection between the two problems is likely. For error, to Plato, is not a wrong move in a game, or the misuse of concepts, or the misapplication of conventional rules: none of these is more than a possible necessary condition of error. For him a statement about error is at bottom as objective, as 'logical', a statement as a statement as about knowledge; and in the sense that psychology and method are irrelevant to the latter, so they are irrelevant to the former. We are used to working on the assumption that knowledge exists: Plato shows us that the same sort of existence should be attributed to error.

A man has a reason for being in error. Just as the man who knows is able to give an explanation so the man in error can give an explanation, not of why he is in error, but of what his *doxa* is. From this is extracted some sort of statement about what the world would be like in which the *doxa* would be true; and such a world is examined. But to be without either a true *doxa* or a false *doxa* is an impossible achievement for anyone.

42a. Soph. 263 e 3ff.

CHAPTER V. ORIGINS OF DIALECTIC

Socratic dialectic has been credited to different originators by different investigators. The most recent lists of likely candidates are found in Ryle¹ and Gulley², who ~~show~~ that the question of origin may be a double one:

- (a) Whence came the method of question and answer?
- (b) Whence came the elenchus?

Ryle appears to think that the whole method, comprising both (a) and (b) was in existence before Socrates (p.127), while Gulley gives Plato (or Socrates) the credit for the proportions of the mixture - which amounts to a fresh method. Both agree however that "eristic" refers to a method existing independently of Plato, though Gulley ~~dates~~ it after Plato's invention of "Socratic" dialectic. Others link this independent method with Elea or Megara³. Sidgwick⁴ thought the method described in e.g. the Euthydemus originated entirely with Socrates and Robinson, correctly noting that "dialectic" changes its meaning over the years says: "The fact is that the word 'dialectic' had a strong tendency in Plato to mean 'the ideal method, whatever that may be...'⁵ Of eristic, he says: "Plato does not imply that there were any persons who accepted the title of 'eristic' or 'antilogician' as their natural and proper designation ..." though that Plato's text is compatible with this assumption. It will be contended that Robinson is largely right; but as he has neglected⁷ to ~~survey~~ the arguments brought forward by opponents using both Platonic and extra Platonic texts, the case merits further investigation. For what Plato means by dialectic is peculiar to him; but this must not bind us to the possibility

1. 1966. 2. 1969.

3. Guthrie 178 n.1; Taylor I 92 ff; Gomperz (T) 163 f; 209f; Peck 1952, CQ 39; 43; 56. ct. Gulley p.26; Grote 1884 p.174 Vol(Viii); 171; Burnet 1968 p.192.

4. Journal of Philology IV 288-306, p.298; V p.66-80.

5. I p.70.

7. e.g. I p.91.

that he may be adapting an outside method. In any case, as we shall see, he has to make his new method intelligible in terms of already existing rhetorical methods. A re-examination will bring out the roundness of the Platonic method which Robinson seems to neglect

Plato and Aristotle expressly attribute dialectic to Eleaticism, or at least to Zeno⁸. But some commentators claim that Plato shows us Protagoras is responsible for both (a) and (b). Their arguments are based in part on extra-Platonic material. As we claim that their interpretation rests on a distortion of the texts, we first investigate the "Protagoras" of Plato, and afterwards investigate whether the extra-Platonic material is strong enough to stand up on its own. The case is argued most plausibly by Gomperz and most provocatively by Ryle.⁹

I

Gomperz gives three passages of the "Protagoras" which taken cumulatively he claims attribute a reputation for dialectical ability to the Grand Old Man. At 320C Protagoras says: *ἀλλ' οὖν μῦθον λέγων ἐπιδέξω ἢ λόγῳ διεξιθῶν*

- A Gomperz (128) paraphrases: *oder durch Vortrag eines Mythos tun solle, oder in begründender Auseinandersetzung.* We allow 'Mythos';¹⁰ but *λόγῳ διεξιθῶν* simply means "going through the argument in argument, or in "reasoning" prose as opposed to heightened fictional prose (cf 329 C 6).

B 329B.

Πρωταγόρας δὲ ἔδε ἱκανὸς μὲν μακροὺς λόγους καὶ καλοὺς εἰπεῖν ὥς αὐτὰ δαίμοι, ἱκανὸς δὲ καὶ ἐρωτηθεὶς ἀποκρίνασθαι κατὰ βραχὺ καὶ ἐρόμενος περιμεῖναι τε καὶ ἀποδέξασθαι τὴν ἀπόκρισιν, ἃ ἀλλόγους ἐστὶ παρεσκευασμένα.

(It is followed by a formulaic elenchus).

This with C Gomperz takes to imply that it is common knowledge Protagoras makes a boast of his mastery of many genres, among which is dialectic.

περιμεῖναι τε καὶ ἀποδέξασθαι τὴν ἀπόκρισιν

A strange expression. Guthrie translates "(the faculty) of waiting and listening to the answer". But Protagoras is not being asked to listen to Socrates' answer, but himself to give the answers briefly. The usual phrase for dialectic is *δοῦναι καὶ δέξασθαι τὸν λόγον*

(Rp.531e; Phaedo 95d; Ptgs.336c). Two examples of development in the direction of our phrase are Theaet. 179e9 *ἐπιμεῖναι ἐπὶ τῷ λόγῳ* and Charm.156c where accepting the logos means raising no objections..

Now B either refers to a fully developed dialectical situation which this

8. DK 19A1; Soph.216 a ff; Phdr. 261 d 6 ff:

9. G.p128; R.p.113. 10. e.g. Burnet ad Phdo 6164 (fact/fiction), Adam loc.

is one of the necessary qualities; or it refers simply the Art of Conversation, in which we rather hope for an interlocutor who will listen to our answers and with whom conversation will be consecutive; or it refers to dialectic for Socrates, and the Art of Conversation to Protagoras. A Socratic conversation is being offered. Ironically Socrates describes his own quality of fixing on the answers while eliciting a display of Protagoras' ability to answer briefly. The meat is in the middle: *κατὰ βραχύ*. The phrase shows that though Protagoras may not have understood dialectical implications, he did understand the phrase to refer to a special sort of method and not simply to conversation. As we see below, Socrates changes the meaning of this phrase too.

ὁ δὲ λίγος ἐστὶ παρεσκευασμένα : This can hardly imply that Protagoras invented "what is given to few". He credited with the ability of discussing without being disputation. Most of Socrates' interlocutors who are ready to discuss are in some way eristical or contradiction~~us~~. Protagoras is praised for not being an eristic. He does not practise the method of dialectic in a non-Platonic way: he does not practise it at all.

κατὰ βραχύ

The presence of the phrase in caput VIII of the Dissoi Logoi shows that brevity is a virtue of the time.¹¹ But its use here is more comprehensible by comparison with the Gorgias, where brevity is an issue from the beginning (448 a 5; 448 c; 449). Gorgias, too, can speak long and short (449 b 5 f; 449 c). But both Chaerephon and Socrates have to explain what is meant by 'speaking short'. The reply "the finest art" is not short enough (448e). "Yes" and "no" are beautifully short (449 d 5) but this is ironically (*ἄρα*). Socrates is quite prepared to accept an antithetical answer from Gorgias that shows little improvement in rhetorical brevity over Polus'

11. See section on that work infra.

contributions but a great deal of improvement in the direction of intelligent definition (450 b 6 f - 448 c 4 f). Before we get to the definition (453) there are two long speeches from Socrates and some rhetoric from Gorgias without a murmur on either side (451; 452; 452e). A similar situation obtains in the Protagoras: length of reply is not really important, but the simplicity of the generalisation given in reply is important¹², both for Socrates and in the medical writings. Formulae of summary are also common in Isocrates; for both to the rhetorician and the philosopher such summary generalisations are invaluable, but for different reasons. Plato himself seems to parody too literal an interpretation of his demand for brevity at 342 e ff - the Laconic brevity of the early Sages, which he is critical of elsewhere¹³. I cannot find any rhetorical tradition before Plato in which this sort of brevity is praised. But it was practised; and there was a dispute about the correct length of speeches, instanced by the speech of Hippias¹⁴ calling for *μῆτριον μῆκος*, by a passage of the Phaedrus,¹⁵ where the same sentiment is attributed to Prodicus and by Aristotle¹⁶, where the sentiment could have arisen from Aristotle's own feeling for the Golden Mean. These are rhetorical contexts; but though they may indicate that the length of a speech was a matter for discussion and gibe, the passages do not prove a desire for *μῆτριότης* originated with rhetoricians.¹⁷ It is worth noting, too, that Gorgias and Protagoras feel speaking long and speaking short are part of the same general ability: they are speakers for all seasons

The language of AB probably refers to a rhetorician's or a savant's virtuoso abilities in conversation. Protagoras can give genuine straightforward information (the opposite of this is to make a *μακρὸν λόγον*

12. See Caput IV p.

13. Prot. 342 e 2 f; Charm. 164 e 6; Theaet. 180 a 4.

14. Ptgs. 338 b 1.

15. Phdr. 267 b 5.

16. Rhetoric III 16; 1416 b 35.

17. cf. Horace, Ars Poet. I 26; Arist. Ars Rhet. 1414 a 25; Radermacher XXV 34; 2, 33 e 164 VII 24. Dr. S. Usher argues in a forthcoming issue of Bulletin of Institute of Classical Studies that Isocrates did not write a 'techné' in which he could have recommended brevity in the *δύγγοις*

of something); and outside the framework of an

²ἐπιτομῆς¹⁸. Sidgwick doubted that Protagoras had any mastery of dialectic because of his subsequent performance¹⁹. But the fact is that Protagoras shows a greater mastery of logic than Socrates does (on the surface)²⁰. He defends the principles of correct conversion, ambiguity, and responsible judgment²¹. He assumes the right to judge argument here and in the Theaetetus.²² But it is clear that these are points of clash between the old and the new. Underlying Socrates' outrageous behaviour is logical/ dialectical theory foreign to Protagoras. We note in passing that Protagoras shows ^{no} Eleatic features in this work; and that Socrates is already making philosophical points disguised in ordinary language.

Our conclusions are the same for C (334 e 4 ff) which is used by Gomperz and D (336 b 6 ff) which is used only by Ryle (p.115).

C Socrates needles Protagoras with Protagoras' own reputation. He can teach long and short speaking and can give the long and the short of most things (335 a 7; 334 e 5 f). But Protagoras' experience has been in debate (335 a 4 ^{ἀντιλογίας λόγων} ; 335 a 6 ^{ἀντιλογίας}) where this vocabulary is at home. He is now required to converse i.e. to answer questions and stick by the answers.

It is possible that Protagoras knows of dialectic, but of a different sort of dialectic from the Socrates. This is apparently shown by D(336 b 7 ff).

D Alcibiades thinks a vote should be taken in the matter (d5). This suggestion is sufficiently glossed by the author of Alcibiades I²³, and ruled

18. Compare a similar feeling about the shortcomings of oratory at Antidosis, 48.

19. Journal of Philology IV p.300.

20. See those who think Protagoras wins; Gagarin 1969 TAPA.

21. 331 b 9; 351 c 9; 350 c 6; 333 d 3 - 334 c; 359 c.

22. Pths. 361 d 7; Theaet. 162 d; 166a.

23. 106 b; 106 d; 107 a.

out by e.g. Laches 184 d e; Gorgias 474 A. Alcibiades as usual misses the point. Nor is ~~the~~ a matter of standard practice,²⁴ since Hippias and Callicles have their own solutions. The expedients are invoked in the way Englishmen toss coins or cut cards - because they are the first expedients to hand in an "agonistic" Society. The rôle of the audience is not central; when Socrates agrees to switch roles, the feeling is that Protagoras must have his turn, as in a debate, which dialectic is not; and that Socrates and Protagoras will set each other an example to be followed rather than stage a double event.

Ryle (p.114) also adduces Theaetetus 167 D-168 as evidence that Plato "associates" Protagoras with dialectic. But Protagoras is very much rejuvenated (168 c 6) and utters many Socratic sentiments. At 168 c he brings against eristic the sort of charge Socrates does²⁵ - which would be odd if Protagoras had invented eristic. Everywhere in the Theaetetus Protagoras is much altered from the original.²⁶ Protagoras is invoked as an expert in just argument; but not as an expert in dialectic or eristic. He says what an intelligent man would say. His charge is that Socrates should present his case in extenso as in a debate:

ὡς οὐ εἰ μὲν ἔχεις ἐξ ἀρχῆς ἀμφοιβητεῖν, ἀμφοιβήτῃ
 λόγῳ ἀντιδιεξελθὼν· εἰ δὲ δι' ἐρωτήσεων βούλει,
 δι' ἐρωτήσεων· οὐδὲ γὰρ τὸ το φευκτέον

27.

There is stronger ground in the Sophist (232 e). Gomperz claims that Protagoras is here credited with an antilogical form which as something to do with ἀντιαιτιεῖν. It must be pointed out that there is no evidence that Protagoras wrote out two speeches, pro and contra for the shoemaker. Antiphon wrote such speeches in a judicial context; but I can find no

24. Ryle 1966 p.114.

25. Phdo 90b; Ethyd. - 277e 4; though also Ptgs 357 a 8.

26. See now Maguire, J.P. Phronesis 1973, Protagoras - or Plato? p.115-34.

27. 167 d 4 ff.

evidence of such a tradition in the *Techne* disputes. These passages fall into two groups - those in which tradesmen are arraigned for not being scientific²³ and vice-versa; or in which one trade (usually rhetoric) is shown to be superior to another.²⁴ The debates reached a high theoretical level, taking in concepts like *techne*, *tyche*, not-being, as well as more pragmatical considerations. But the part played by Protagoras is difficult to estimate²⁷. Tradition credits him with the invention of the *hod*, but we owe the information to the unscrupulous Epicurus' settling Democritus' old scores²⁸. This connects him with the trades, but so does Protagoras' 'subject', *euboulia* which is remarkably untechnical - half political, half domestic (Protag. 318 e). Now if ἀντιλογίαν does not have the force of "composing two speeches" but simply of discussing, contradicting as it very likely does at 232 c 9, then Protagoras' "Antilogies" disappear from view. Later we shall cast doubt on the tradition which attributes such a work to him; but we can guess already at the nature of the *technai*, which enable a man to face all tradesmen - not only rhetoric, but *euboulia*, the proper government of house and state. Protagoras defends the importance of a general *euboulia* against Socrates' argument from the specificity of trades²⁹. Protagoras' work may have been a cross between a practical encyclopaedia, a defence or aid for general, layman's thinking in the face of experts, and a work designed to impart that extra something needed beyond expertise.

The tensions we have noticed in our reconstruction above affects the translation of the text. Gomperz (131) paraphrases, 'man finde in den Protagoreische Schriften über die Ringkunst und die übrigen Künste' dasjenige niedergeschrieben und veröffentlicht was man gegen jeden einzelnen Kunstmeister einzuwenden (ἀντιλογίαν) hat, ebenfalls

antilogische Form aufweisen" Taylor translates (p.118): "I believe there

23. *Vetus Medicina* I; IV; V; *De Arte* I, II, III, IV ^{οἱ τεχνῶν φιλοσοφῶντες τὰς τέχνας διὰ φιλοσοφίαν} may be natural philosophers, though XIV mentions ^{ἐπιστήμης} Note the Eleatic language of the debate cf. *De Nat. Hom.* I, II; *De Flatibus* I, XV. On the relations of medicine and philosophy, see Kühn 1956, Lloyd 1963, Longrigg 1963; and on the dispute of science and professionals Bourgey p.119 f; 115 n 1; Heinemann 1961 *passim*. 24. *de Reg.* I; Gorgias DK B 11, 8f; Plato Gorgias 456 a 7 ff; 465 a; Phil. 58A; Laches 195 c 7 ff.

27. The Gomperz 1910 crediting him with the *De Arte* is ^{discredited} Von Fritz P.W. col.920 630 f; Longrigg *op.cit.* 28. DK 80 A1, 68 A 9.

29. Prgs. 319 a 8 ff.

are written manuals in circulation for each and every profession from which anyone who has a mind that way may learn how to controvert the professionals themselves.

-¹I take it you allude to what Protagoras wrote about wrestling and the other professions (sic). - And to the works of a host of other writers too bless you!"

The remark implies that Protagoras had no monopoly of ... only 'manuals' can suit this meaning, since lots of works disproving shoe making to shoe makers would have left more trace. Taylor continues: "But to keep to the art of controversy ..." Our authority for taking "wrestling" to mean "controversy" is no greater than Diogenes Laertius.³⁰ "But to keep to ..." translates ἀτάσθαλ which Denniston suggests introduces a change of topic in Attic writers and is usually adversative in Plato³¹. The so-called Art of Controversy is therefore separated from its apparent originator by an ἀτάσθαλ.

If we examine the context of Soph. 232 b - 236 d it becomes clearer that we ought not to associate Protagoras with antilogy. For antilogy is introduced at 225 b 10, and no one thinks of Protagoras. Antilogy is defined as question and answer, non-forensic but comprising technical conversations on matters of justice and in justice. These are 'eristical' discussions. At 232 b 6, the division is resumed, with the additional information that 'antilogy' is taught to pupils. Now the sphere of antilogy can be divine matters, cosmology, and politics, in so far as the discussions take place in private groups (232 c 7), and with universal reference (232 c 8; d 1). This must mean that antilogy is a medium of instruction - the lecture, after hearing which pupils think themselves fit to enlarge on any subject in (informal) conversations. The only direct connection made with Protagoras is that Protagoras has addressed himself to the sphere of all craftsmen and has done so in a book. The subject of the book is Techne and its relations to individual technai. It is chosen because it is

30. Wrestling is the natural Greek metaphor for verbal^b disputation: Aristophanes Nub. 126; 901; 1047; Ran. 775 f; 878 ff. It does not help us here.

31. 1934 p. 52-3.

universal in scope.³³ *καὶ ἰσοδυνάμει ἑτέρων* we take to refer to authors with Taylor against Cornford, if only because *ἕτερος* requires a difference and there is no point in repeating *τῶν ἄλλων τεχνῶν*. Then Plato broadens his field to make a generalisation (*ἐν κεφαλalaίῳ*) which will eventually cover both natural science and the products of art.³²

The connections within the section 232 b - 236 c are weak. The title *περὶ ἀλμῆς* could simply mean just what it says - after all, there was a discussion between 'sophists' on the question of whether or not one should train in full armour.³⁴ So it is difficult to analyse Plato's synthesis into its historical components. The likelihood is, that the sophists assembled here are a disparate group, with little connection, even in the case of Protagoras, with antilogy as Plado defines it here-a sort of dialectical question and answer. Had there been a close historical connection between antilogy and Protagoras the looseness of this passage would have been inconceivable. Protagoras is chosen not as an "antilogical" or a dialectician but as a sophist.

An attempt has been made to find an attribution of dialectic to Protagoras in the mention of the "noble art of sophistry" 'divided' at 226a - 231b.³⁵ This is the cathartic dialectic usually taken to be Socratic dialectic or imitations of it. The attempt has been rebuffed elsewhere.³⁶ Though the method described at 230 b 4 ff is similar to the method Protagoras uses in Simonides' poem, the essential feature of "cathartic" dialectic seems to be missing - a genuine elenchus stated according to Plato's so-called law of contradiction:

230 b 7
τιθέντες δὲ ἐπιδεικνύουσιν αὐτὰς αὐταῖς ἅμα περὶ τῶν αὐτῶν πρὸς τὰ αὐτὰ κατὰ ταῦτα ἐναντίας.

It is difficult to believe that Protagoras is credited with this. The

32. 236 c 7.

33. *ἐκατόν* can be Neuter or Masculine.

34. Laches 181 e ff; 183 d 9; Euthyd. 271 d 9.

35. Kerferd G.B., Plato's Noble Art of Sophistry CQ 1954 p.84-90.

36. Trevaskis J.R. Sophistry of Noble Lineage, Phronesis vol.I 36-49;

Booth CQ 1956 p.89 f.

remaining trappings of noble sophistry - bringing wandering opinions into obvious conflict, the moral benefit - do not seem sufficient to prove a method of dialectic for Protagoras. The Socratic activity is like but is not eristic³⁷ because it contents itself with a genuine contradiction, unlike eristic which aims at any sort of contradiction. The passage may aim at thinkers who adopted only the trappings of Socrates like Euthydemus.

In Aristophanes the word ἀντιλογία is frequently and loosely used. It is connected with "answering back" and getting away with things. It is also used in its sense of answering or corresponding speeches, as in an agon. One famous ἀγών ranges the κρείττων λόγος against a ῥ' ἴστων λόγος, and this when compared with Aristotle Rhet. II 1402 a 23 f has been taken to reflect the influence of Protagoras.³⁸ Clouds 1045 ff may remind the reader of 'Euthydemus' e.g. 302 b 4 f; 303 a 6 f; but these are fundamentally puns, not part of a Protagorean technique.³⁹ Dover in his edition of the Clouds does not seem to mention this attribution,⁴⁰ and at no point does the question of formal antilogical structure seem to arise. Nothing we know of Protagoras leads us to suppose he would argue Sophrosyne is bad⁴¹.

The testimony of Diogenes Laertius is a lynchpin in the Dialectical Protagoras argument. All we have are the bald statements:

IX 51 καὶ πρῶτος ἔφη δύο λόγους εἶναι περὶ πάντος πράγματος ἀντικειμένους ἀλλήλους· ὅς καὶ συνηρώτα πρῶτος τοῦτο πρῶτος
^{53.} οὗτος καὶ τὸ Σωκρατικὸν εἶδος τῶν λόγων πρῶτος ἐκίνησεν

The three "firsts" are sufficient to cast doubt on these assertions, and 53 is also contains the assertion that Protagoras tried to prove the

37. 231a.

38. Gomperz p. 35 f; Gulley 1969 p.30.

39. Protagoras' Style is the grand Ionic. Norden, Agnostos Theos, Appendix

40. Dover: Clouds p.xxxvii ff.

41. cf. Clouds 1060.

slogan of Antisthenes that οὐκ ἔστιν ἀντιλέγειν as Plato says in his 'Euthydemus' ! Plato in fact says Protagoras maintained we cannot tell lies⁴² which issues in "contradiction is impossible". The reminder of Diogenes' information seems to come from Plato somehow, with the important exception of DK B4. Plato gives us a hint of this fragment (DKA 23 = Theæt. 162D) and Eusebius vouches for it, but our longest version of the fragment comes from Diogenes⁴³ alone. The fragments seems to be inseparable from certain unlikely biographical details. Atheism Plato did not treat with respect; and according to him Protagoras dies full of honour in Sicily⁴³ at 70. Yet at least one wing of the doxography has chastised Protagoras for atheism, inventing successively worse punishments for him until we reach punishments that can only be paralleled in the Christian period. It seems likely that this is the tradition that has handed down, or invented, part of Fr.4. Now C.W.Müller⁴⁴ has shown that this punitive tradition rests on Philochorus (second century A.D.) who is called 'prophet' and 'diviner'⁴⁵. Müller emphasises that the source of Fr.4 is inseparable from some tradition of either a trial or an attempted prosecution and he prefers to keep Fr.4. The question is whether this source is reliable for other elements of Diogenes' account. It may help to loosen the tie between the historicity of the trial, the authenticity of the fragment and the worth of Diogenes' source if we add together Rp.492 E and Meno 91 d f and mix with a little imagination. For in the Meno, Socrates delates Protagoras to Anytus, and in the Republic, the wrath of the state against Sophists is made to seem a law of nature. Anyone wishing to punish Protagoras for atheism had hints that it ought to be done. Diogenes' proof from the lines of the Ixion is not much more extravagant.

So in the one respect in which Diogenes is independent of Plato his source

42. Euthyd. 286 c.

43. Meno 91d.

44. Hermes 1967 140-59.

45. Jacoby Fr.Gr.Hist.328 T1.

must be treated with caution. His other authorities read badly - Timon, Eupolis, Dion, Artemidorus, Epicurus. His quotations from Aristotle are anecdotal and also require caution. Given this background we will not go far wrong if we assume that Diogenes has been misled by the "Protagoras" sections which mislead Gomperz.

Diogenes' list of Protagoras titles is dubious. E. Heitsch⁴⁶ has shown that Plato knows Protagoras' book under the title of Aletheia (Theæt 161c; 152 c; 162 a; 166 d; 170 e; 171 c, Crat 386 c, 391 c). Unfortunately the title was a popular one for treatises; and titles changed over the years. But Sextus Empiricus (DKB 1 = S.E. adv. math. vii 60) has changed the title from 'Aletheia' to 'Kataballontes' - he too is under the impression Protagoras is an antilogical (getting the impression from Soph. 232 d 7 *καταβέβληται* ?). Had he known of an 'eristical' work it is unlikely he would have used this title for the Aletheia; and the famous first sentence is an unlikely beginning for a work written in eristic form. Porphyry's title *περὶ τοῦ δυντός* suggests what he found if anything was an Aletheia, though DK have credited him with the mention of an entirely unknown work (DK.B2 = Eus. P.E. X, 3, 25). All Diogenes' titles can be accounted for from Plato, especially the "Protagoras" which is worked through heading by heading, an unknown theological tradition and the anecdotes of his life in the fragments of Aristotle. Diogenes gives us three relevant titles:

τέχνη ἐριστικῶν - Even DK find this title dubious; for us it begs the question.

περὶ ἀλθειας - This is straight from Plato, and not illuminating.

ἡντιδογιῶνα β' - DK accepts this on the authority of Aristoxenos.

Aristoxenos is an enemy of Plato who tells us that most of the Republic is

46. Hermes 1969 p.292-96.

47. Cornford P.T.K. 191 n2.

47a. For a different reading of the list see Untersteiner, M., Sophists 1954 p.10f.

to be found in Protagoras' 'Antilogika'. Cornford⁴⁷ identifies the *περὶ ἀδύς* and the *ἑνὶ λόγῳ*. Now guessing that Aristoxenos takes his title from the Sophist, we find that Protagoras' work does contain the Republic because it is Protagoras' book on all trades (i.e. sarcasm). Unless Aristoxenos thought of the work as a dialogue, which makes matters worse for him, it is difficult to see what else he could have meant. Now I suggest that the Antilogiai occurring in the Diogenes' list is not the same work as Antilogika accepted in DKB5 from Diogenes BK III, 37. For the Antilogiai are forensic, as shown by their position in the list, following the "Suit for the Fee," possibly specimen pro and contra speeches. Needless to say, there is no evidence that any such were written; but for the compilers of such lists they fill a biographical gap^{47a} - Protagoras' connection with the law.

We see a tendency in the doxography to fix on any available work as Protagoras' Eristic or Antilogies. All evidence seems to point to the 'Protagoras' and Soph. 232 ff as the source of the tradition about titles. The Sophist passage is innovatory in intent and therefore not a faithful report of the activities of an antilogical beast who prowled round Athens bearing his name on his brow. The difficulty Socrates experiences talking to Protagoras and Gorgias is due not to the rules of the method, but to a philosophical problem - the desire ~~for~~ an answer true without exception. Correct philological treatment of the passages concerned shows the large area of intentional verbal ambiguity that Plato cultivated, to give the impression that Socraticism is continuous with the methods of honest conversation, which is quite free of technical knowledge (= *τὸ πρᾶκτικόν*). Protagoras was being asked not to be knowledgeable.

47. Cornford P.T.K. 191 n.2.

47a. For a different reading of the list see Untersteiner, M., *Sophists* 1954 p.10f.

II

The first of the minor sources for eristic is the Dissoi Logoi. As Ryle says (p.116) this is "highly pemmicanised, somewhat jumbled, and fragmentary." The work is dated to before 404⁴⁸ because a reference is made (I.8) to the ending of Peloponnesian War and not to the expedition of Cyrus 401. It is very obvious the work is not original and debate should centre round whether the author is an eclectic or a ~~sectarian~~⁵⁰. Gomperz argued he was a Protagorean (p.172 ff). Kranz made him a Socratic, Taylor an Eleatic (97). Many themes of Socratic dialogues appear here for the first time. But our task will be easier if it is a narrowly defined (i) are there in the Dissoi Logoi intimations of the method of dialectic pursued in the early dialogues? (ii) If, as I believe, there is nothing significant in the way of method, what is the nature of the connexion between Dissoi Logoi and the early dialogues? The answer is important because on this rests Guthrie's opinion that antilogic predates Plato⁵¹.

(i) Similarities of content and individual arguments are irrelevant: we need to consider the antithetical treatment as a whole. The anthropological relativism of II, 9; I 2 etc. is independent of this structure. Levi⁵² has reminded us that the antithetical structure accounts for the first four chapters only, also that the author is more in favour of his theses than of his antitheses (p.296 n.27 referring to Gomperz 185 ff, 191). He denies that Eleatic eristic can be found in the Dissoi Logoi. For Euthydemus and Dionysodorus "asked short questions in ambiguous form and required their interlocutors to answer yes or no without distinction or limitation, in order to reduce to absurdity whatever they might say, while the first chapters of this work contain both thesis and antithesis rather extensively developed." The main difference between Euthydemus and the

48. Taylor I p.93; Trieber, Hermes 1892 p.210-22, p.216.

49. Bibliography and translation, Sprague Mind 1968 p.155-67.

50. Kranz Hermes 1937.

51. Guthrie III.i.p.178 n.1; 317.

52. A.J.P. 1940 pp.292-306; 293, 294 n.14.

Dissoi Logoi is the length of the expositions. This points to the influence of rhetoric. But certain techniques of argument are similar, though in Socrates they are used in a conversational situation and in the second case in a debating situation - I mean the techniques of saying the opposite and question and answer.

Kranz⁵³ and Ramage⁵⁴ have drawn attention to the "trace of dialogue" I 12-14. Ramage claims that (424) the writer is acquainted with Socrates mainly as a sophist. "This casual relationship (with Socrates) would also account for the sophist's failure to reproduce the Socratic dialogue with accuracy." Ramage argues partly from Diogenes Lærtius, but mainly from the language used at I.12f-^{τ.δδ} (a "transitional combination" p.419), ^{24γδδγ} (an attention getting device), ^{2δδδδδδδδδδ} τ γ. He claims that colloquial speech provided Socrates and "Twofold statements" with a common source for this vocabulary;" and says that the only other "reference" to "dialectic" is in Caput VIII. The truth is that the "dialectical" passages occur in all four complete antilogies, and in the same logical place in each.⁵⁵ The matter cannot be reduced to the clumsiness of archaic prose,⁵⁶ because the questions require personal answers; each has general scope; and the question is put before dealing with the arguments presented in the antithesis.⁵⁷ The arguments work by substitution of the pretended equivalent concepts in statements of ordinary situations; but the "tricks" do not depend on the play of 'like', 'same' and 'different' that we associate with Platonic eristic and perhaps with the Eleatics. This type of argument is conceived as conversational, working by the interchange of good and bad in a situation calculated (in the words of Podsnap) "to bring a blush to the Young Person's cheek."

The overall pattern of the antilogies is (i) general argument ad hominem (ii) specific arguments ad orationem. The arguments supporting

53. Hermes 1937 p.231 f.

54. A.J.P. 1961 p.418-24.

55. I.12; II 21; III 13; IV 6:

56. cf Fraenkel: Eine Stileigenheit p.80 1960.

57. I.16; II 23; III 15; IV deficit.

the antithesis are mainly empirical, anthropological; the arguments supporting the thesis are conceptual. There appears to be a stock of arguments on which the speaker can draw⁵⁷ resembling Socratic arguments. But we have no evidence that the 'art' of doing this is conceived as anything but remembering an ad hoc argument; nor is there anything particularly conversational about the work. The question and answer sections prelude the continuous sections. But the work is evidence that instruction was given in the techniques of debate at the time: many of the techniques were concurrently applied by Socrates to "conversations".

We must now consider the meaning of Cap.VIII. Taylor thinks it means (127) "the *διαλεκτικός* is the true philosopher and the true philosopher is also the true statesman." Levi finds in it a reference to the encyclopædic education favoured by Hippias (p.301: Prtgs 337 d - Cap VIII), with which Guthrie (III.i.p 319) agrees, saying that the Chapter's purpose is "to maintain that the good speaker knows everything about everything." We cannot agree that the emphasis in the chapter is on the "dialectician" - who is only one among many. The fact that succeeding chapter is a de Memoria points to Hippias whose speciality this was.⁵⁸ Also the method of the passage is anti-Socratic - he who knows anything must know everything - a principle of unacceptable demonstrations.

(ii) Our interest lies in the first sentence, where the author says it belongs to the same art and the same man to teach the following subjects:

- | | | |
|---------------------|---|-----------------|
| |) (a) <i>κατὰ βραχὺ δόνασθαι διαλέγεσθαι</i> | (13) incomplete |
| <u>private</u> |) (b) <i>τὴν ἀλήθειαν τῶν πραγμάτων ἐπιτάσσει</i> | (12) incomplete |
| |) (c) <i>δικάζειν ἐπιτάσσει ὀρθῶς</i> | (9)(10)(11) |
| <u>public</u> |) (d) <i>δημιγορεῖν</i> | (5)(6)(7)(8) |
| |) (e) <i>λόγων τέχνας ἐπιτάσσει</i> | (3)(4) |
| <u>Wissenschaft</u> |) (f) <i>περὶ φύσεως τῶν ἀπάντων</i> | (2) |

Title

Argument

57. e.g.V 9.

58. Gomperz 179; Hipp.Min.368 d 7.

Now it appears from this list that (a) is a recognised area of study, taught, Gomperz suggested, by Protagoras; and the suggestion is borne out by the 'Aletheia' following, which we saw was Protagoras' title, though it is not clear that he was the "first inventor" of that title for a philosophical work. In the Aletheia Protagoras appears to have adopted a general philosophical position and expounded it at length. Item (a) is somehow opposed to this. Presumably it is not expository, and concerned with individual items in more intimate situations - questions from the floor, for example; or how to conduct your day to day talk. It might have been a boast of Protagoras - but there is no reason to suppose it means "eristical conversation". For with or without Diel's emendations, the argument at (13) includes the giving of answers, which is not our usual picture of eristic. The attraction of (a) as an *ἐπαγγελία* is obvious. But 'conversation' in this sense merely seems to be the opposite of a harangue.

Nor can (a) refer to the sort of embarrassing questions we have found common to the Dissoi Logoi and to Socrates. For ~~if it~~ it does, it is the odd man out in the list, because it is not on a level with the others. I am inclined to make the subject of (a) "a general knowledge" and of (b) theoretical knowledge. The movement of ^{the} passage shows (a) is less important than (b).

The phrase (a) exists before Plato; but it is not limited to the art of putting questions. It is quite likely that Socrates uses the vocabulary of the generation of Protagoras to clothe or make intelligible a new method. In any case the present writer is eclectic, being influenced by Hippias,⁵⁹ Gorgias,⁶⁰ Socrates⁶¹ and persons unknown. Embarrassing questions occur in the work, but are probably not what is meant by dialectic. Nor has the connection between Dissoi Logoi and Eleaticism been demonstrated, let alone Taylor's: "I would suggest that his purpose in constructing his antinomies

59. Gomperz 171; Levi 300; Guthrie 319 n2.

60. Levi 301.

61. Kranz op.cit. Ramage op. cit.

may have been to reinforce the Eleatic doctrine that the contents of sensible experience, are unknowable."⁶² The subjects of argument - the fine, the good, parents, friends and enemies and how to treat them - are more related to rhetoric, Socrates and the 'Clouds' than to Eleatic philosophy.

The remaining non-Platonic examples of pretended antilogy and eristic come from the Hippocratic Corpus.

(a) De Morbis I (i)

ὅς ἂν περὶ νόσος ἐθέλῃ ἐρωτᾶν τε ὁρθῶς καὶ
ἐρωτῶντι ἀποκρίνεσθαι καὶ ἀντιλέγειν ὁρθῶς ἐνθυμέσθαι
χρή τῷδε· πρῶτον μὲν ἀφ' ὧν αἱ νοῦσαι γίνονται πᾶσι
τοιοῦν ἀνθρώποις, ἔπειτα δὲ ἑκάστα ἀνάγκης
ἔχει τῶν νοσημάτων ὥστε ὅταν γένηται εἶναι ἢ
μακρὰ ἢ βραχέα.

There follow instructions about what to look for in a disease, how to sort diseases, and how to be on guard against an opponent:

ὅς ἂν δὲ τις τούτων ἁμαρτάνῃ ἢ λέγων ἢ
ἐρωτῶν ἢ ἀποκρινόμενος καὶ ἢν πούδ' ἔοντα
ὀλγὰ φῇ εἶναι - - - ταύτῃ φυλάσσοντα χρὴ
ἐπιτίθεσθαι ἐν τῇ ἀντιδοσίῃ.

The passage is cited by Cornford⁶³, Heinemann⁶⁴ and Bourgey⁶⁵ as evidence of antilogy techniques taught presumably by Protagoras and used by craftsmen within a trade. Bourgey⁶⁵ says of it "C' était une coutume aux temps hippocratiques que, devant des cercles plus ou moins étendus les médecins fissent des exposés systématiques soigneusement préparés.

Quelques-uns de nos traités et non des moindres représentent le texte même de ces discours! He shows how the De Arte and the De Flatibus have both

62. Taylor I.128; 93.

63. Plato's Theory of Knowledge p.191 n2.

64. 1961 p.111.

65. Observation and Expérience 1953 p.115 n3.

been influenced in their different ways by rhetoric. The Greek medical profession was vocal, because it had to sell itself. Bourgey points out that Xenophon, Mem. IV 2,5 implies that city states appointed official doctors, and that the doctors earned their appointments partly by making speeches. Plato himself makes distinctions between good and bad physicians, which involve logos - first in the use of theory⁶⁶, then in the use of theory 'sold' to the layman.⁶⁷ They might even have tried curing by argument.

Edelstein⁶⁸ comments on our passage as follows: Bei Krankheiten kann diskutiert werden wie die Krankheit, die jemand hat zu erklären, sei und wie man sie behandeln müsse. In der Diskussion (ἀντιδιόγῃ) muss der Arzt darauf achten, ob sein Gegner unhaltbare Behauptungen aufstellt, und an solchen Stellen eingreifen und ihn widerlegen." Now we notice that the plea is for a more systematic medicine. The vocabulary of debate is distinct from the vocabulary of knowledge here: for the language of debate did not arise out of medicine, but equally it is not imposed eristically upon medicine. The passage strikes me as "for internal use" within the profession, but certainly not as, pace Cornford, "eristic debate about medicine". The physician needs the separate ability to make an antilogical speech because any recommendation he makes should be founded on a systematic knowledge of medicine, starting from general rules. No conclusion can be drawn about fixed forms of discussion from the use of the vocabulary. Dates, too, are lacking, but the De Morbis is not among the earliest treatises.

Ryle cites de Natura Hominis I (Loeb IV p5) as a proof of the existence of eristic moots.⁶⁹ Like Ryle, I give the Jones translations but only to reject it:

(b) "Given the same debaters and the same audience, the same man never wins in the discussion three times in succession, but now one is victor, now another, now he who happens to have the most glib tongue in the face of the

66. Charm. 156 e - 157a; Rp. 405 c d; Phdr. 270 c.

67. Laws 722 b; 857 c; Gorgias 456 b; Philips 1973 p.188; Joly 1961 p.439.

68. 1931 p.104.

69. Ryle p.117.

crowd. Yet it is right that a man who claims correct knowledge ...
should maintain his own argument victorious always...

It must be noted that these debates are about an arche and strongly
influenced by natural philosophy. The passage begins in the Loeb text:

γνοίη δ' ἂν τόδε τις μάλιστα παραγερόμενος αὐτοῖσιν
ἀντιλέγουσιν. πρὸς γὰρ ἀλλήλους ἀντιλέγοντες ~~οὐδὲ~~ οὐ
αὐτοὶ ἄνδρες τῶν αὐτῶν ἐναντίον ἀκροατῶν οὐδέποτε
τρεῖς ἐφέξῃς ὁ αὐτὸς περιγίγεται ἐν τῷ λόγῳ..
καίτοι δίκαιον ἐστὶ τὸν πάντα ὀρθῶς γινώσκον...
παρέχον αἰεὶ ἐπικρατέοντα τὸν λόγον τὸν ἑωυτοῦ..

The first thing the reader thinks of is Rp.534 B f - dialectic complete
with audience. But antilegein is a word naturally used of philosophical
discussions. The emphasis, too, is on how to distinguish the man who is
really right, not through these discussions, but in spite of them. A man
claims to know - each side puts forward its own belief - which is not
eristic. Akroates means the hearer of a lecture, rather than the member
of an audience. There is no suggestion that the "audience" votes; nor are
these debates regular occurrences before the "same audience" which is a
misinterpretation of the archaic style:

(i) γνοίη δ' ἂν τόδε τις .. παραγερόμενος

someone who was present would have the following proof.

(ii) τῶν αὐτῶν .. ἀκροατῶν : αὐτῶν is used to echo αὐτοὶ

ἄνδρες . The audience must ^{some} be the same if anyone is to be in a position
to appreciate this particular proof. The τις ... παραγερόμενος
is a member of οὗ αὐτοὶ ἀκροαταί . But (i) and (ii) simply represent
the archaic shift from singular to plural.⁷⁰

(iii) οὐδέποτε τρεῖς ἐφέξῃς : This is merely a metaphor
from wrestling, not a record of an "event". See Euthyd. 277 d Phdrus 256 B,
though the sense does not quite correspond to what little we know of the

70. Fraenkel op.cit p.63 n.3 ad Herod. II 70.

rules of wrestling.⁷¹

(iv) 'Tripping oneself up' - Similarity to Theæt. 164c is explained by the poverty of Greek logical language. The proof from the words from the opponents' words is not a philosophical monopoly. The reference to Melissus is meant to show absurdity, notoriety, not "Eleaticism" on the part of the debaters.

We conclude that this passage does not refer to eristic moots.

(C) Euripides fr. 189 reads:

ἔκ μέρτος ἄν τις τῆς τῆς ἀρχαίας σοφίας ἀδύνατον.
ἀπὸ τῆς ἀρχαίας, εἰ δέ γε ἐν εἰς σοφός

Duchemin takes these lines as the chorus⁷² "Il suffit d'examiner nos fragments pour nous convaincre qu'Euripide a institué ici un débat en règle dans lequel il a développé de façon très poussée les deux thèses en présence." Snell has interpreted the debate⁷³ in terms of the contrast between the active and contemplative life. But the terms of the apology for the contemplative are borrowed from the defence of rhetoric. The setting is firmly rhetorical/political (fr.199; 200); and there is a science of rhetoric (fr.186; 206). The fragment above is not a philosophical position; but it is a recognised test for the presence of science in a speaker.

Ryle also considers the claims of Euclides of Megara and Eubulides.⁷⁴ Associated with these are logical difficulties like the Liar. But our authority for considering them eristic is weak; and almost nothing is known of Antisthenes except what Diogenes Laertius tells us. But with Antisthenes we reach the Viri Socratici. Even Euthydemus and Dionysodorus seem to have learned their art some time later than 420 B.C;⁷⁵ and they are credited not with a new dialectic, but with a new art of fighting in argument. At

71. Also Harris, H.A. Sport in the Ancient World 1972 p.21 - "the best of three falls"; Gardiner E.N., Athletics of the Ancient World 1930 p.183.

72. Ἀγών in Greek Tragedy 1968 p.85-7.

73. 1964 p.70-98.

74. Ryle p.112; 123.

75. Euthyd. 272a-c; Gulley p.1969 p.27.

Euthydemus 286 c, Socrates distinguishes a sophistic puzzle (that there are no lies) from the innovations of Euthydemus - presumably fighting in words. But this sophistic puzzle that predates the new method belongs to Protagoras, who once again turns up as an example of an earlier non-dialectical generation. A great deal of the later dialectical vocabulary is associated with him; but the idea of applying this vocabulary to restricted, personal, committed conversation is Socrates!

III

The case for crediting Zeno of Elea with the invention of dialectic rests on an apparent attribution by Plato, certain other Platonic texts, and the statement by Diogenes Laertius that Aristotle called Zeno discoverer of dialectic, (just as Empedocles was discoverer of rhetoric!) The statement was made in Aristotle's 'Sophist' (Rose fr.65; Dk A1, 10) which should be interpreted through Platonic conventions as an answer (in this respect) to the Phædrus. Aristotle's statement is part of his demotion of dialectic, and made for analytical reasons, not historical ones. His analysis of dialectic and rhetoric are parallel. The close of the Sophistici Elenchi shows that his meaning in the "Sophist" was not that Zeno wrote the rules for dialectic, or had any scientific understanding of it.

However the assimilation of Zeno to sophistical eristics began early. In Alcibiades I (119 A) there is a report that Zeno charged a hundred minae for getting a reputation for cleverness for Pythodorus and Kallias (σοφός τε καὶ ῥητορικός)⁷⁶. Simplicius gives us the Millet Seed (DK A 29) in the form of a dialogue between Zeno and Protagoras (Lee 38; DK 28). He ends the quotation with the words ὁ μὲν οὖν Ζήνων ὁδοῦς ἡρώτα τὸν λόγον Diogenes Laertius (27.ix = DK A1) on the authority of Antisthenes⁷⁷ gives us a picture of Zeno asking a ruler a Socratic question. The moderns on the whole have not accepted that Zeno wrote dialogues⁷⁷. As we shall see Eudemus (fr.7 Wehrli = DK 16; 21) and even Aristotle (DK24 = Phys. 210 b 22 f) put questions rather than statements in his mouth - misleadingly. The case appears to reduce to Plato through whose eyes in some way or other these people see

76. cf. Parmenides 126 c 3; Theæt 164 e 9; Ptgs.314 d 9.

77. Fr. Hist.Gr.III B 508, (11).

77. Guthrie II p.81; Lee II p.110.

him. About the independent access of Simplicius to Zeno there is no agreement.⁷⁸

The sense given by moderns to Plato's pronouncement is sophisticated. Guthrie (p.83) refers it to the art of extracting contradictories - which applies only to elenchus and marks a developed stage in the handling of it. There is some doubt that Zeno dealt in contradictories, rather than mere opposites; and mere antilogy could also provide a model for the extraction of contraries, if possible on the hypotheses of one's opponents. Guthrie does not seem to link Zeno firmly enough to how this extraction takes place in the dialogues. Vlastos⁷⁹ cashes the phrase "founder of dialectic "as" founder of argumentative Greek prose," this being Zeno's main advance on Parmenides. Owen⁸⁰ admits that we know "Plato does echo some arguments of Zeno, but ... he transforms them radically for his own ends." But the authorities converge in thinking that eristic has an Eleatic background.⁸¹

A Plato's references to Eleatics cluster late in the oeuvre, but their influence has probably been felt as early as the changelegs Forms of the Phædo⁸². They are generally complimentary to Parmenides, but less so to Zeno and Melissus.⁸³ We are shown the Eleatic school in the following frame:

- (i) members: Melissus, Parmenides, Xenophanes (sophist only)
- (ii) they maintain the world is one.
- (iii) Socrates met them when he was young: (and therefore did not understand them?)
- (iv) Socrates fears he (still) misunderstands them and must work out their meaning.

Now the membership of Xenophanes is a moot point, resting as it does on the further evidence of the De Melisso Xenophane et Gorgia. Reinhardt⁸⁴ and

78. Guthrie II 8 n.3; Solmesen 1973 p.126 n29.

79. Encycl. of Phil. 1967 VIII p.378.

80. Symp. Aristotelicum 1960 101/2.

81. e.g. Guthrie III(i) 178 n 1; Levi op cit. 296 etc.

82. cf Prauss, G. 1966 p.41; Solmesen, A.J.P. 1971 62-70.

83. Theæt 183E; Parm. init; Sophist 242d; 244e etc.

84. 1916 p.89 ff.

Regenbogen⁸⁵ are mentioned by von Fritz⁸⁶ as defending the reliability of the De Melisso for Xenophanes, Reinhardt being driven to extreme chronological measures. Von Fritz solves the difficulty by finding in the Eleatic works remnants of an archaic argument, presumably Xenophanes! Steinmetz however says of our passage that Plato's language is picture-making (bildhaft)⁸⁷. Aristotle seems to refer the One to Xenophanes' theology.⁸⁸ We may note that Xenophanes is credited with an epic on the city of Elea;⁸⁹ add that Xenophanes is reckoned an Eleatic only in the passage in which the philosophical schools are distinguished geographically.

On (ii) (the oneness of the world) we note that there is difficulty in attributing oneness to Xenophanes' system; the tenet is attributed to Parmenides in the Theætetus as part of a pun; in the Sophist ~~as~~ almost a myth.⁹⁰ We shall see that the place of 'One' in Parmenides' system is disputed also.

B If we compare Plato's presentation of the Heracliteans and pluralists generally, we find an instructive symmetry. (Theæt 179 ef; 152 ef)⁹¹.

(i) Members. (a) Homer and the poets - quite impossible. It balances Xenophanes.

(b) Protagoras: Heinemann⁹² has argued for the connection of sophistic with Heracleitus; but as far as schools are concerned, Cornford is right to make no inference that Protagoras was a Heraclitean.⁹³

(c) Heracliteans: Guthrie says that the Heraclitean school continued after the death of its founder. Cratylus, the prime example, has recently been revamped.⁹⁴ Plato denies a master pupil relationship within the "school".

Two editors of Heraclitus differing as much as Marcovitch⁹⁵ and Kirk⁹⁶ agree that accounts of the Heraclitean school are not to be taken seriously.

85. P.W.Supp.VII col.1544 f.

86. P.W. ix a ii 1548.

87. Xenophanesstudien Rh.Mus.1966 pp13-77, p.19.

88. Met. 986 b 18 = DK A30.

89. DK A1; A2.

90. Theæt. 183 e 5; Cornford P.T.K. p.101 n 1 referring to Dies; Soph. 242c 4; 8; d 6; Guthrie I 368.

91. See Capelle AM, Hermes 1962 p.288-94. 92. Nomos und Physis 1965 p.152 ff;

161. 93. P.T.K. p.36. 94. Kirk 1951 A.J.P. 225-53; Allan D.J. A.J.P.

1954 270-87; Cherniss A.J.P. 1955 184-6; Luce, Phronesis 1965 esp.34ff.

95. P.W. Supp.X 1967. 246 ff. 96. Cosmic Fragmentss 1970 p.14.

(ii) Where does Heraclitus say he disbelieves in the One? For the unity of opposites⁹⁷ and the singleness of truth can both be expressed in this way. The defence of pluralism does not seem to have been among Heraclitus' objects. Plato gives the game away at 157 a 42 when he complains that on Heraclitus' system "it is not possible to conceive anything singly, on its own" (Hackforth)⁹⁹. This is Plato's concern; and also shows us what sort of oneness he found attractive in Parmenides.

(iii) Much of the argument for the Protagorean position is taken up with arguments that work or fail to work because of the youth of the interlocutor Theætetus. Theodorus has some personal acquaintance with Heracliteans, but only in the fighting moods, not when they are "keeping the peace".¹⁰⁰ The implication is that there is another side to the "school".

(iv) No one can understand Heracliteans (179 e - 180 c) because it is

impossible to have dialectical discussions with them (τὸ ἐπιμαίνειν ἐπὶ λόγῳ καὶ ἐρωτήματι καὶ ἡσυχίᾳ ἐν μέρει ἀποκρίνασθαι καὶ ἐρῶσθαι)

I find it difficult to believe that this stems from a mystical cult of paradox: my impression is that Plato is alluding here to a habit of literary composition - what Fowler would call Elegant Variation. They never say the same thing twice in the same way: καὶ τούτου διὰ τῆς ῥόδου λαβεῖν τί εἴρηκεν, ἑτέρῳ πεπλήσθη καὶ νῶς μετωνομασμένῳ

i.e. they change the names. Now Hudson-Williams¹⁰¹ has shown that

is almost a term of art, a "stock epithet of rhetoric, like for example

τὸν ἥτις ῥόδον κρείττω ποιεῖν."

He quotes Isocratean passages to show the word's use to mean variation of

97. Dk B. 26, 67.

98. DK B. 2; 32; 30; 106.

99. Mnemosyne 1957 and 157 131 c.f. 152 d 2; 153 c 4; 157 a 7.

100. 180 b 4-7.

101. CQ 1948 pp.76-82 p.77n.

common sentiments and appropriate remarks. For Plato he cites Phædrus 267 b. We compare Phædrus 235a. The Heracliteans have one commendable dialectical feature - their brevity; but this brevity is ~~a~~apophthegmatic and useless, and probably come from a quiver, like Pindar's, of common places and dead people's thoughts. Their main fault is change words in midstream. It is corresponding and opposite fault to the Eleatic vice of using the same word many times without distinguishing several senses of the word.

- C Dialectic cannot be used on "Heracliteans", but it can be used on Parmenideans, because of their allegiance to 'One' - to leaving things fixed in discussions.¹⁰³ But whether this is Parmenides' use of 'oneness' is another question. It should come now as no surprise that the reliability of Plato's notices on the Parmenideans is doubtful. Solmøsen says "Fortunately no lengthy discussion of the problem is needed; for lately several scholars have stated firmly that Parmenides' subject is not the ~~εἷ~~ but the ~~ζῶν~~"¹⁰⁴. To adapt the words of Shorey from another context ... "the illustration of these fallacies is too symmetrical to be unconscious... Plato knew what he was doing."¹⁰⁵ In keeping with (iii) and (iv) Plato treats the Eleatics as if they were dialecticians.

The information Plato gives us in the "Parmenides" is also dubious. Socrates divines that Zeno wrote his book in support of Parmenides and from an indirect angle. But most people do not tumble to this, nor is this fact the whole truth about the work.¹⁰⁶ It is unlikely that information about Zeno's polemical youth brings out the whole truth either. Socrates has invoked a consequence (128 c b) of the position and not the intention. Now according to our principle of research, this should mean that Zeno ought or

102. Ad.Nic 41; Ep.ad 7 as 8; Paneg 8.

103. e.g. Parmenides DK B8. 12 ff; cap.Iv.

104. Phronesis 1971 p.119; n.11; cf.A.J.P. 1971 p.62-70; M.K.N AW XXXII. 8 p.221-233 "The Eleatic One in Melissus".

105. What Plato said p.290.

106. 128 a 7; 128 b 8.

ought not to have taken a dialectical step.

Two possible Zenonian errors present themselves. The first is a mistake about the nature of contradiction: "There are not many" implies "there is one" only if the statements are contradictory - i.e. exhaustive and mutually ~~exclusive~~ alternatives, which they are not. A failure to appreciate this fact is the mistake of the Zeno fragments and of the whole school.¹⁰⁷ But Socrates is responsible for making the mistake here, though his own treatment of the many and the one shows that he now thought of it as an antinomy.¹⁰⁸ The second candidate for the error is procedural: in a debate in which the opponents had produced $\gamma\epsilon\lambda\omicron\iota\varsigma$ and apparent contradictions using Parmenides' position, Zeno thought it an adequate reply to "deduce" $\gamma\epsilon\lambda\omicron\iota\beta\tau\epsilon\rho\alpha$ using his opponents' position (Cap II). The result is not the advancement of any cause but the opponent's - because the opponent then defends his position by invoking a higher more general principle. Parmenides is praised (and absent from Zeno's recitation) because Parmenides deduces from his own principle, ignoring the fact that the consequences seem laughable; it is enough for him that they are consequences, and this is the essence of the advice he gives to Socrates at 130 d 3 ff. Zeno's behaviour is almost by definition eristic, since he takes a hypothesis (which he does not believe) and deduces follies from it without too much regard for their quality. Having proved something of the following sort

$$p \quad (q \ \& \ p) ; \quad - (q \ \& \ p) ; \quad \therefore - p.$$

he expects us to conclude

$$(i) \quad - p$$

$$(ii) \quad - p \quad r ; \quad - p ; \quad \therefore r.$$

We have seen that Socrates is not apparently attacking (ii); though Socrates own view combines the hypothesis of Parmenides with that of his

107. Lloyd, G.E.R. 1966 Polarity and Analogy p.106-8.

108. Parm 129 d 1 ff; Soph. 251 a 7 ff; Phil 14c 11; Lloyd GER op.cit.134 f.

opponents. This third alternative is apparently excluded by (ii). Now what is conclusion (i) based on? First, on Modus Tollens of which we found no effective example in Cap.II. In the subsequent arguments of the work, an unexpected conclusion, q , is not a ground for the abandonment in p , but a challenge to further clarification of p . But there is no evidence that Zeno thought beyond a sort of Modus Tollens. Second, legitimate Modus Tollens depends on the notion of a genuine contradiction, which Zeno has misapplied to terrestrial things like big things, small things and the like. Socrates points out that Zeno's contradictions do not (thanks to the theory of Forms) constitute disabling objections. It is left to Parmenides to point out that difficulties of the same nature still arise even among the Forms. So both the "hypothesis" that there is one" and the "hypothesis that there are many" present difficulties and there is apparently nothing to choose between them. In such circumstances, Plato chooses to examine 'both' i.e. a little diplomacy between two sides.¹⁰⁹ But the lesson he draws in both the Sophist and the Parmenides is that individual concepts¹¹⁰ should be explored from all sides because the interactions have to be "seen" to be believed. The "absurdities" alleged by Zeno are premature: for there are more sorts of possible relations in heaven and earth than are dreamed of in their philosophy. This is why, in his second piece of advice, Parmenides recommends the Zenonian method to Socrates¹¹¹ - not as a method of disproof, but as a method of clarification and exploration. The Zenonian method leads to the exploration of various sorts of concepts and relations; whereas the Parmenidean leads to the investigation of one concept and the demonstration of the unthinkability of its opposite.

But the correct warrant remains $p \rightarrow q, p \therefore q$. Plato himself uses the unthinkability argument, which is a proof of internal incoherence;¹¹² but not the proof of the coexistence of contraries except as a goad to

109. Sophist 246 ef; 254 c ff; Phil. 20e.

110. Lloyd, G.E.R.op.cit. p.145; 148; 161.

111. 136 a b.

112. Crat.439 ef; Theæt 183 af; Soph. 238 c 8 f; Phil 21 d 4 - 22 c 4.

further clarification. The "training" element is not mere practice in disputation, but the enlargement of a young man's mind to tolerate more forms of apparent contradiction. This will save an older man from eristical arguments when he comes to consider ethical matters in maturity. These forms of apparent contradiction are attendant on the introduction of plurality and negation; and it is ironic that Parmenides¹¹³ should give advice about exploring negative statements, and relative statements in what reads like a resuscitation of Socrates' old warcry about exploring everything from every angle. The improvement on Socrates' warcry lies in the set order in which these explorations are to take place: the positive, the negative, the relations with themselves and with other (a limited list of?) concepts.

D Little of this reads like history. Parmenides and Zeno are correcting their methods in a Socratic direction. But even supposing that the "Parmenides" report is not historical and does not reveal method currently practised among Eleatics, it is possible that the method of dialectic originated with the real Zeno. Now Solmsen claims that the 'quotation' we get from Zeno is only:

127 ὅτι πολλὰ ἐστὶ τὰ ὄντα ὥς (ἔρα) δεῖ αὐτὰ τὰ ὁμοιά τε εἶναι καὶ ἀνόμοια

The succeeding phrase τοῦτο δὲ δεῖ ἀδύνατον is Socrates¹¹⁴. He also impugns Simplicius' evidence for Zeno's destruction of the many but not of the one. He brings several arguments to show that Zeno argued as much against One as against Many and that "even if Zeno's entire argument ... was directed against "the many" he clearly had no qualms about knocking out the One on the way."¹¹⁵ The effect is to sever the close connection between Parmenides and Zeno.

113. e.g. Sophist 258 c 6 ff.
114. Solmsen op.cit 118, n.9.
115. op.cit p.136.

But Socrates does not believe that the compresence opposites is impossible. He attributes belief in that impossibility to Zeno; and those who believed in the Many believed it as a plurality of Ones - which Zeno should therefore have knocked out on the way. The resulting tension between what Zeno believes on Parmenides' principles and what he believes is wrong with his opponents' position could very well be described as Plato has described it - youthful excess. Solmsen admits Zeno's concerns are Eleatic.

Solmsen's main point must be that Zeno's work was not responsible. "Problems, dilemmas, paradoxes, equally defensible alternatives may have fascinated him more - and for their own sake - than the way out of the deadlock ... He may well head the long line of those who professed themselves able to present two mutually contradictory *λόγοι* on every subject (even though we do not in every instance know his second answer and he may indeed sometimes have thought one startling answer sufficient)"¹¹⁶. This can be true whether or not Zeno is a Parmenidean.

So how did he conduct his arguments? Solmsen admits we have too little evidence to be sure that each argument had an antilogical structure; but he is probably right in thinking the arguments range freely without much commitment. He reassesses the evidence of Eudemus and Aristotle in this light.¹¹⁷ As Eudemus' is the only text approaching a proof that Zeno practised dialectic, we demonstrate Eudemus' dependence on Aristotle.

Eudemus (Wehrli fr. 37a; DK A16).

Καὶ Ζήνωνά φασιν λέγειν εἴ τις ἀδυνάτῳ τὸ εἶναι
ἀποδοῖν τι ποτὲ εἶναι, ἔξαι τὰ ὄντα λέγειν ἢ ἵππερ
δὲ ὡς εἶοικε διὰ τῶν ἀισθητῶν ἕκαστον
κατηγορικῶς τε πολλὰ λέγεσθαι καὶ μορισμῶ, τὴν δὲ
στιγμὴν μηδὲν εἶναι. ὁ γὰρ μήτε προστιθέμενον
ἀφαιρεῖ μήτε ἀφαιρούμενον μείοι οὐκ ὥστε τῶν
ὄντων εἶναι

116. op. cit. 141.

117. op.cit.137.

The passage is based on Metaphysics 1001 b 7 ff; DK A21 and records the Aristotelian λόγος, itself recalling Plato (129 a ff; 139 d 8 ff):

κατηγορικῶς πολλὰ λέγεσθαι. Aristotle has encouraged him in his error by using such words as ἀπολογία, φορτικῶς, τὰ θύγα λέγειν — οὐ φησὶ εἶναι τοῦτο ὡς ἀνείνων

Nor is it clear how much Aristotle quotes from Zeno apart from quoting the useful criterion of material existence — adding and taking away.

Aristotle here argues against Platonic, Parmenidean and Pythagorean traditions and does so dialectically, by stealing Parmenides' clothes (i.e. Zeno's criterion). Further specification of what Zeno meant involves attempts to make his arguments watertight, usually against historical positions.¹¹⁸

The final 'proofs' that Zeno was a dialectician are quickly dealt with. The reference to Zeno at Soph.EI. 170 b 19ff (= DK A14) is a gloss and should be removed;¹¹⁹ and the statement that Zeno was the first to write dialogues at Diogenes Laertius III 48 carries no conviction in the light of our knowledge of say, of our knowledge of the Millet Seed dialogue.

E We next examine Phædrus 260 d — 263 d. It is important to be clear what Plato is proving: rhetoric is not truth-neutral because no techne can be. Specifically the most effective deceiver is the man who can disguise error to look like truth. This is true of oratory, where antilogy is a proof of the existence of science. But Phædrus does not realise it is also true of the Eleatic Palamedes, Zeno who has the same skill in persuading people of opposites. The remainder of the passage (261 d 9ff) is not about Zeno but about dialectic — which brings out what is hidden¹¹⁸ and takes small steps.¹¹⁹ Now the dialectician must be aware of the deceitful power

118. Bibliography in Vlastos' entry Zeno of Elea, Encyclopædia of Philosophy 1967. 119. So Ross (translation) and Loeb; This is the reference which leads Hirzel to attribute dialogue to Zeno. Der Dialog 1895 I p.55 n3.

118. 261 e 4. 119 262 a 2.

of likenesses¹²⁰; and anyone who can use likenesses to produce verisimilitude must be aware of the truth¹²¹ - a point Socrates is forever aiming at the Sophists; and a reason for his seeing Parmenides behind Zeno. The source of this description is not Zeno's book. Our suspicion is confirmed when we realise that the right way of being rhetorical is being dialectical.¹²² Zeno's book is chosen, I suggest, partly because its first hypothesis is about the "like and the unlike", of which concepts Plato had a whole theory but there is little reason to suppose Zeno had even if he had the same meaning for *ὅμοιος*. It suffices too, for calling a man *λεξιπύς* in a popular sense that he had written a book - there is no suggestion that Zeno worked out ~~on~~ logical theory beyond exploiting an ability to misuse contraries. Almost nothing can be gathered about the man from this passage; but the passage can account for Aristotle's announcement that Zeno is the discoverer of dialectic (DK A10) as dialectic and rhetoric are the two arts that forge contradictions¹²³ - as a degradation of dialectic.

F The third relevant passage is the beginning of the Sophist.

(a) 217 c 4. "or to use the method of asking questions, as Parmenides himself did on one occasion in developing some magnificent arguments in my presence, when I was young and he quite an elderly man" (Cornford) - surely a reference to the "Parmenides" and no more. Socrates makes the request and it is almost a request to observe the custom of the country - dialectic is Attic.

(b) 216 b 8 "He is more reasonable than the devotees of verbal dispute ... there is something divine about him: "I would say thtt of any philosopher". The strictness of Eleatic logic would lead to bad tempered

120. 262 b 6. P.W. III.A.2. Speusippus 1643/29f.

121. 262 c 1ff.

122. 263 b 6 ff.

123. Fränkel 1942 p.2 n.6.

hold ups in any conversation: but it is not necessary to suppose that any set of Eleatics went about actively holding up conversations for the sake of it.

(c) 218 d 9: the Eleatic Visitor begins his dialectic at an advanced, Platonic stage with a paradigm.

(d) 216a: For a implicit recantation of his own earlier views of the irony in the opening, see Taylor's translation of the dialogue?¹²⁴

G If the explanation given above of the nature of the link made between Parmenides' arguments and Zeno's is not accepted, we have still to ask what use Plato or Socrates could have made of this method. What positive position were they defending? Why did Plato not fall foul of Eleatic irresponsibility, earlier in his career? It would be difficult, too, to assess the vast change that must have occurred when Zenonian methods were first applied face to face in responsible conversation.

If some sort of serious link between Zeno and Parmenides is accepted, it can be accounted for on Parmenides' principle of the "unthinkable" double way: the path that 'there is and is not', which after all applies something like the phenomenal world which Plato tells us Zeno's antinomies were intended to apply to also. But this is not a straight case of a dialectical disproof. For Zeno there are only two ways of which one is impossible. There is no room here for a method of disproving specific hypotheses in ways relevant to the "true opinions" of the interlocutor. For Socrates, "both sides" of the question have to be examined.

It is difficult to prove Zeno did not spawn a tribe of eristics, especially as on our own showing he is maverick. But there is nothing to show such a tribe used dialectical weapons. They could prove absurdities like Gorgias, to show their mastery of a subject,^{124a} but Socrates' absurdities came from a different root - his absurd demands for the

¹²⁴. Taylor I p.92; ct. Taylor IV p.91.

^{124a}. or seriously, see Kerferd, G.B. 1955.

exceptionless statement, for the good all men recognise. It is likely to have been later that Platonic dialectic came to pin down the rather bloodless Zenonian words like "like" and "movement" as somehow crucial: when Plato was perfecting his methods of dealing with doxai, or statements. Socrates' ethical interests remind us more of the embarrassing questions of 'Twofold Statements'. As for Zeno's assuming and deducing the consequences of other people's beliefs - this depends on some rather half-hearted words of Plato and an assimilation to rhetoric. Plato's definition of eristic in the Phædrus became the standing charge brought against dialectic by Aristotle - that it deals with *τὸ ἐνδοξόν* and that it proves and disproves in appearance only. There is little evidence therefore that the urge to refute Aristotle's statements to Aristotle's face came from Elea any more than from rhetoric.

Parmenides seems to have paid some attention to polemical reasoning (B 1. 30; 6. 8; 7. 1; 3, 5; 8. 8; 15, 53, 61) but the odds are that Plato would have found Parmenides' methods too powerful for constructing a system of reality that somehow ties up with what we think we see. His method is to force more and more definitive statements of various positions - neither of which is declared "wrong" until it reaches a sufficient degree of 'clarity' or definition. He does not rule out the opposition from the beginning because it says "is" and "is not". Much of his effort is taken up by giving sense to the joint ~~exp~~ expression of them. What he owes to Zeno and Parmenides seems to be an interest in the concepts they dealt with, and which become lynchpins of an ordered dialectic. Elea provides as it were the copia verborum for Plato's *logic*; but may not provide the syntactical methods of dialectic.

What came from Elea was philosophy.

However some destructive means were generally known, with two main features - treating contraries as contradictories i.e. the excessive use of the exclusive disjunction; and the use of false composition i.e.

difficulties about putting 'is' and 'not' together. Plato represents these tricks as verbal; but we are free to suspect that they were felt as difficulties rather than used as irresponsible methods. Plato sometimes pays them the compliment of imitation ~~th~~ better to discuss more properly logical issues.^{124a} The vocabulary used for them is used in talk about the Theory of Forms; and the only method of 'argument' that Socrates feels free to use in the Phædo is a method of hypothesis that may depend on the use of the exclusive disjunction. But even in the Phædo the Eleatic method is not completely approved of. For instance, the demand for deduction from a higher hypothesis seems to be completely Platos'.

124a. though contrast Peck.

IV

Lysias¹²⁵ gives us a plain man's view.

καὶ ἐγὼ μὲν ὥμην φιλοσοφούντας αὐτοὺς περὶ τοῦ
ἐπαγγέλματος ἀντιλέγειν τὸν ἐναντία λόγον· οὗ διὰ οὗκ
ἀντέλογον ἀλλ' ἀντέτινόν·

Antilogy is typical of all philosophers¹²⁶ who talk for the sake of it; and as Plato's philosopher is such a plain man, it follows that he is not affected by the habit! The fact is that Plato uses these words where the natural reference would be to his secret control of the argument. But his descent into the practice is said to be involuntary, like so much else.

This is the message of Rp.452 d-7c. At 454 b Socrates says:
κινδυνεύομεν γοῦν ἄκοντες ἀντιλογίας ἀπτεσθαι

It is called a techne, because it can reverse no matter what argument. His diagnosis in the Republic is that antilogy works by prosecution of the word rather than the thought.¹²⁶ This remains his charge against the 'practice',¹²⁷ but the prophylactic recommended varies with the current method of dialectic. Thus in the Rp. matters are set right by demarcating the sorts (εἶδη) of likeness and difference intended.¹²⁸ In the Phædo, matters are cured by keeping apart arche and consequences¹²⁹. In the Philebus, eristic is due to ignoring τὰ μέσα¹³⁰. In the Sophist, antilogic and eristic are the art of question and answer and a subgroup of it. (Soph 225 b 10 ff).

The notion of contradiction does not seem to be as basic in Plato's use of ἀντιλέγειν as the notion of 'saying the opposite'. The antilogical leads the argument off the track until it says the opposite,¹³¹ several times until any sane person is quite dizzy.¹³² Now this is precisely Socrates' trick with others, but Socrates tries to reconcile his arguments one with another.

125. Lysias (viii) (11).

128. 454 b 6 ff.

130. Phil.17a.

132. Phdo. 90 c; 96 c f.

126. 454 b 4 f.

129. Phdo. 101 e; 90 c.

131. Lysis 216a.

127. Theæ.164c 7 ff.

The principle of antilogy is that the ~~two~~ partners develop their principles in opposition to one another, or that two speeches produced by the same man should be as contray as possible. Socrates distinguishes antilogy from dialectic in the Meno in the following way.¹³³ (Socrates defines shape in terms of colour; Meno asks him to define colour). Socrates points out that in strict antilogy it is the oppoent who is required to define colour; but in dialectic, the two opponents work together through the admissions of the answerer. In such a case, if Meno accepts or knows a meaning for colour, Socrates is not required to define it. But Meno gives himself away as an eristic, when he presses his question: "what is colour". All this does not prevent Socrates from producing two opposed arguments about the teachability of virtue later in the Meno, or the whole set of opposed arguments in the Lysis. But his check on this tendency of his is to find a true science of argument. Another check is the seriousness of the conversation. If Socrates swere practising antilogy it would be open to him to refrain from using words like 'understanding' and 'not understanding': presumably because antilogy is only an exercise. But no conversation can be hld on such terms, because in conversation we must use such words and concepts.¹³⁵ As a serious man, Socrates must continue to use them. The difference between antilogy the method, and the 'realm' of conversation is a strong one, though conversation may use antilogy for its own purposes.

Antilogy then is a method of making strange things happen in an argument; but the philosopher tries to explain why the strange things have happened. The science responsible for antilogy is not a science of mere tricks that can be learned: something more important is at stake. But the only way that the philosopher can examine the nature of antilogy is by summoning the resources of a conversationalist - who is assured of, say, the cooperation of his interlocutor, and of plain committments to certain beliefs that are not to

133. 75 b 7 - 76 a 8.

134. 76 a 8 f.

135. Theæt. 196 d 10 - 197 a 5; Cap.Iv.

be surrendered easily.

Now who forced the development of antilogy the method? The most likely answer is Plato himself - in 'antilogy' and 'conversation' he had found a creative tension; which he kept up by developing both to more adequate levels.

In the Theætetus example, about the omission of "understanding" and "not understanding", it is arguable that there were eristics who did exclude the use of these words from conversation - as Lycophron may have excluded the parts of the verb 'to be'.¹³⁶ But I suggest the above explanation would in any case be sufficient. The power of conversation is being invoked to correct the faults of antilogy. Antilogy itself is mere inference. Conversation holds the power of the arche; and so a defeat for the better side in the antilogical matter of deduction is the fault of the argument, not of the better side to which we remain committed. But antilogy forces us to purify our premises. So in the Theætetus we stick to 'understanding' and 'not understanding'.

Dialectical investigations also "discover" one ~~of~~ the distinctive marks a 'sophist' - his interest in 'likeness'. The process of 'discovery' begins at Phædo 74 d and Lysis 215 c f.¹³⁷ add issues in ~~the~~ choice of Zeno as arche-type at Phædrus 261 d 6 ff.

We have reviewed the main occurrences of the words antilogic and eristic in Plato.¹³⁸ All of it has been adapted to the dialectical situation.

In the 'Euthydemus' we are given a picture of a flesh and blood eristic who uses the method of dialectic, whereas we have discounted the possibility of such a monster. But if we look more closely we find that Euthydemus is more an imitator of Socrates in this respect than vice versa.¹³⁹

Euthydemus has only recently come by his wisdom (272 b 7 f) and such

136. DK 83 A2; Guthrie III (i) 216 f.

137. cf. Rp.454 c 8 f; Soph 231 a 7: 235 e 3 f; Pol. 285 a 6; 285e.

138. see Thompson's Meno p.278; 280. Excursus V.

139. Gulley 1968. p.28.

wisdom is bringing philosophy lately into contempt (304 d f). It is assumed that philosophy is about arete (273 d 8), separate from rhetoric (273 c 8), and proceeds by question and answer. Kleinias is practised in it (275 a). None of these elements are the innovation of Euthydemus.

What he brings to the method is his peculiar experience as a former teacher of the military art (273 c) and a writer of speeches for the law court; the latest fashion is conversation and their boast is

ἐν τοῖς λόγοις μάχεσθαι τε καὶ ξεστρίψαι τὸ ἀεὶ λεγόμενον,
ὁμοίως ἔλναι τε ψεύδος ἔλναι ἀλήθειαν ᾧ.

Except for the boast, it seems clear

that the originator of Euthydemus' method must be Socrates himself, as Sidgwick saw;¹⁴⁰ since there is no one else we know of whom he could have been imitating. It is, of course, that we owe the dialectical mould in the account of Euthydemus only to Plato, who pours into it the writings or philosophy of Euthydemus. We have already analysed the 'Euthydemus' as a comédie à clef: each mistake is provided for by the Platonic dialectic proper (cap.II).

Additional Note: Little of this is affected by Prof. Sprague's publication of twenty-three reports of Euthydemus' teaching.¹⁴¹ Against Grote, she argues that the Sophist was historical (Rhet. 1401 a 26; Soph El. 177 b 12; Xenophon III (i)). Diels omitted him, she says, because "in common with many historians of ancient thought he underestimated the eristical side of sophistry." Prof. Sprague credits Euthydemus with an abundance of puzzles, on a false principle - that most of the difficulties raised in the 'Euthydemus' are quotations from his oeuvre. But the fact that Aristotle takes up many of them in the Soph. El. is no argument that he found them in Euthydemus' own remains: for the Platonic quotations in the Soph. El. come

140. Journal of Philology vol.IV 298.

141. Sprague R.K., The Older Sophists 1972 p.294-301.

thick and fast. Ignoring for the moment the fragments she resurrects on these principles we are left with:

Euthyd. 276 d ff. (S.6)	Rhet. 1401 a 29.
299 B ff. (S.14)	Rhet. 1401 a 32.
(S.20)	Rhet. 1401 a 26. Soph. 177 b 12.

S.20 is attributed by name to Euthydemus, but what it means is difficult to work out (142).

Again we get old ~~errors~~ dressed in the latest fashion; but this dialectical fashion, absent from Twofold Statements, has added nothing to the strength of the arguments (S20 cf Dissoi Logoi V (5); S 15 cf Dissoi Logoi II, 13; Euthyd. 300 A ff; Euthyd. 276 d ff, S.6, Dissoi Logoi).

Prof. Sprague seems to think that Plato sticks closer to the "text" of Euthydemus in his comedy of that name than he proved for any other dialogue in a similar situation. She neglects to consider how much the work is concerned metaphysical concerns of Plato's own. A list of parallels binding the 'Euthydemus' to the later dialogue can be found in Shorey.¹⁴³ Prof. Sprague shown elsewhere the relevance of parts of the Euthydemus to criticisms of the theory of Forms.¹⁴⁴ These may have been objections raised specifically against the theory of Forms: but they may simply be tricks of argument, philosophical difficulties arising, say, out of Parmenides, which are adapted by Plato for his own use. It is difficult to imagine that Euthydemus can be quite like Plato's description of him and at the same time be a critic of the Theory of Forms.

142. Cope-Sandys ad loc; 1877.

143. Unity of Plato's Thought 1903 p.76.

144. Sprague R.K. Phronesis 196 pp.91-98.

V

We now consider two ~~post~~-Platonic sources: Isocrates and Aristotle.

A Burnet suggests that the Eristics were Megarians: but he bases his proof on a reading of Isocrates' Helen that aims the work against Socrates Antisthenes and the Megarians.¹⁴⁵ For it contains references to people who spend their time in disputes which Burnet takes as technical for Megarians (Soph.216 b 8). We add the contra Sophistas.

(a) The dating is not firmly fixed. Dodds¹⁴⁶ accepts 390 or the contra Sophistas. Sometime between 390-380 has been suggested for the Helen.¹⁴⁷

(b) Even if an early dating is accepted, the Isocratean texts do not tell us much about *οὐ περὶ τὰς ἐρίδας διατρίβοντες*

Only in respect of fee taking are they obviously separate from Plato and Socrates. For Isocartes is outraged that they charge so little for making a man good, may almost immortal (Soph.3-4). The passage ends with the

Socratic warcry: *ἡ τῆς ψυχῆς ἐπιμέλεια*
countered by *σμικρολογία, ἀδολεσχεία*

Something of Socratic method is known: *μικρολογία* (8), *doxa*, *episteme* (8); virtue, temperance, happiness, immortality - but no evidence of

eristic in the sense of captions discussions (captions to a philosopher, not to a plain man). *λογίδια διεξίοντες* (20) answers *ἀργυρίδιον*

(4) and is merely dispraising: it is wrong to rely on words as opposed to deeds. The following passage does not refer to eristics:

(7) (i) *καὶ τὰς ἐναντιώσεις ἐπὶ μὲν τῶν λόγων τηροῦντας, ἐπὶ δὲ τῶν ἔργων μὴ, καθορῶντας* (ii) *ἔτι δὲ περὶ μὲν τῶν μελλόντων εἰδέναι προσποιουμένους (8) περὶ δὲ τῶν παρόντων μηδὲν τῶν δεόντων μήτ' εἰπεῖν μήτε συμβουλεύσαι δυναμένους*

145. Greek Philosophy 139; 189.

146. Dodds, Gorgias p.27.

147: Mathieu and Brenon Budé 1956 p.160.

(i) is the philosopher/plain man contrast not eristic/dialectic.

(ii) refers to ethical beliefs - immortality, making people better (not pace Ryle to Protagoras¹⁴⁸). These people are Socratics.

(c) In the Helena, Socrates divides his enemies into three groups - (I) those who say there is no contradiction etc. (II) those who say virtue is knowledge (III) eristics.

(i) The translation of (C) is difficult. Either it refers to teachers and their pupils, or speakers and their audiences.

ἄλλοι δὲ περὶ τὰς ἐρίδας διατριβόντες τὰς οὐδὲν μὲν ὠφελοδότης, πρᾶγματα δὲ παρέχειν τοῖς πηλοῖς ζῶσι δυνάμει.

πρᾶγματα παρέχειν : Not with Ryle "hot water" and law suits!

Nor 'ennuyer' Bude. Either "make difficulties in discussion for their interlocutors cf Rp.505; Parm. 137b? Phil 14 d 10; or connected with

πραγματῶν - difficulty, studium, philosophy, referring to the sort of difficulty Protagoras' written works arouse in discussion (Cræylus 391 BC;

Euthyd 286 BC; Theæt 152 a - the last two discussions of a philosophical

work). cf πραγματωδέστερα (2).

(ii) Paragraph 6.

ἔστιν δὲ καὶ περὶ τὰς ἐρίδας φιλοσοφία δυνάμει τοῦτο ποιεῖν

does not exclude (I), (II). All philosophers are scrambled together; and their degeneracy is a sign of the times, like degeneracy in rhetoric. It

all stems from τὸ ψευδοδοχεῖν

(4; 1; 8). But money making

is the only possible motive (6 ἄλλα γὰρ answering an unspoken objection/.

148. Ryle Plato's Progress p.113.

There are no records of Socratic fortunes, and the Contra Sophistas complains about the low level of Socratic earnings though the sums he mentions are high. The Cynics seems to be poor on principle. It is possible that the Helen is not entirely serious? It is dangerous to take history from a satirical tour de force.

(iii) The references to antilogic and dialectic in the Antidosis¹⁴⁹ are quite obviously to Plato though the same vocabulary is used and fundamentally the same points made. The Antidosis meets the position of the Republic.

Now supposing some Socratics used Eleatic doctrine to further their master's teaching: why should we not condemn Plato as an eristic for doing the same thing? Isocrates cannot be used to prove that Eristics are a frivolous group who throw spanners in the works; or to prove that a conversational art of disputation was taught, if not by Plato. ~~Is~~ Isocrates distinguishes the eristical mode of instruction from the obvious alternative candidate, Protagoras.

B There are two main ways of connecting Aristotle's dialectic to Plato's to prove the priority of dialectic to Socrates. The first is Lee's¹⁵⁰ contention that Aristotle's massive array of puzzles and ploys in the Topics must have been the result of a widespread practice of "disputation". The second way is that followed by Ryle¹⁵¹ and Moraux¹⁵², who try to prove the thesis from the method of dialectic. For Lee the method does not seem to be as important as the sort of puzzle it dealt with and it follows that he does not require the puzzle makers to be dialecticians.

But Aristotle does not seem to have inspected a large corpus of "eristical" works before coming to empirical conclusions about them. A list

150. Zeno of Elea p.113 ff. 1936.

151. Ryle 1966.

152. Moraux, P. La joute dialectique, Symp.Arist.1968 p.277-311.

of the named sources¹⁵³ in the Topics provides no surprises: Melissus¹⁵⁴ is there, but less frequently than Heracleitus¹⁵⁵. Speusippus and Xenocrates are frequent;¹⁵⁶ there is a reference to a dialogue by Kleophon,¹⁵⁷ and to the grammarians Prodicus¹⁵⁸ and as a grammarian Protagoras;¹⁵⁹ but the vast majority of references are to Plato.¹⁶⁰ What is left is no more than we would expect from Twofold Statements.¹⁶¹ Some of the puzzles look as if they have originators - for example the Ethiopian's teeth;¹⁶² but not many are outside the Academic gamut.

Second, Aristotle's method is wholly Plato's. Even the distinction he draws between the dialectician and the philosopher develops out of Plato: because when Plato talks about the perfect dialectician, he implies that the dialectician must be a philosopher first, and express this in dialectic.¹⁶³ The analysis of motive and passion in an interlocutor we saw in Cap.I is as much part of Plato's dialectic as of the *roué* of arguments, Aristotle. Sometimes he repeats Plato's instructions, for example about looking ahead in the argument¹⁶⁴. For this feature the technical term appears to be *ὑποορᾶν* which he has inherited from Plato.¹⁶⁵ The notion of *δύσκολος* is so entrenched that it becomes formulaic - defined as an interlocutor who refuses to give an answer when the relation between question and answer falls into one of the categories distinguished as automatic by Aristotle. A show of "intractability" is unnecessary.¹⁶⁶ Memory plays the rôle we noticed in Cap.III.¹⁶⁷

153. During, I. Aristotle's use of examples in the Topics. Symp.Arist. 1968 pp.202-229 p.211f.

-54. 167 b 13-20.

155. 1599 b 30; 160 b 19; 104 b 21.

156. During op.cit. p.213.

157. 174 b 27.

158. 112 b 22.

159. 173 b 19.

160. For the possible reference to Euthydemus, vide supra.

161. For division; addition; syllables, change of accents, etc. Dissoi Logoi V (10) ff.

162. 167 a 10 f.

163. e.g. Top.155 b 8; Rp.534 b 8 ff.

164. Phdo. 101 d; Top.155 b 6 f; 160 b 14-16.

165. Theæt. 166 a 5; Top.155 b 14; 157 b 28 cf. 158 a 5; 160 a 12.

166. Top. 160 b 5 ff.

167. Top. 163 b 17 f.

In fact the unscrupulousness that figures so large in Aristotle's description is much of it good Platonic practice. The advice to ask the first questions last to most people, after having won their acceptance, but first to the bad tempered and the practised answerer is not far in spirit from the decision to reduce Hippias through an intermediary, the imaginary interlocutor or from the examination in depth of Thrasymachus and Protagoras (Cap.I). The concealment that Aristotle envisages is used to ensure that argument, i.e. inference of some sort, is possible in various situations in which it is often interrupted e.g. by mere character (156 a 8; 157 a 6). When Aristotle talks about "dialectic" he does not mean just the exercise, carried out at a high level free from distraction; but also conversation with undialectical people, who require careful handling. The young and the training should not enter into disputes with the untrained because they will not 'handle' them properly.¹⁶⁸ Some of the advice is Platonic school practice, adopted for an amalgam of reasons but not contentious in purpose. In the sober democracy of modern logic the practices might look dubious but, as they aim to instruct or persuade, they are felt to be justified. At 156 b 25 Aristotle says that answerers concede points more readily if they think you are not serious. It sounds dreadful when Aristotle says it; but when it happens in the Philebus, it is merely graceful.¹⁶⁹ In fact, the Topics can be taken as a commentary on the dialogues with special reference to why Plato does not pursue a straight logical line. This has little to do with Elea.

What is laid bare by Aristotle's analysis is the effort to get the argument, whatever it is, as far as possible along its deductive course.^{170a} Different situations allow different lengths of argument chains of varying strength. Thus if I am teaching myself and my partner to consider "inference"

168. Top. 164 b 14; 157 a 18 ff.

169. Phil. 30 e 6 f cf. Top. 159 a 12 f.

170a. cf. Owen 1968 p.106-7.

then I accept a hypothesis I do not believe, and accept to the "consequences" that other people think follow from it. It is only gradually that I develop a power of discriminating consequences. This is the coöperative point of the rules Aristotle lays down for the "answerer in training";¹⁷⁰ which is an area for which he expressly says no rules had hitherto been introduced. The effect is to make the answering of questions automatic, and thence more "deductive" in appearance. The tension between the arbitrary (e.g. the psychological) and the automatic leaves the method unsatisfactory but an advance in both departments, towards the maximum truth content possible in the (empirical) circumstances.

So when we come to Ryle and Moraux we wonder whether the atmosphere is quite right. A "tournament" does develop, but its rules tend to the purification of argument, not to wringing victory out of the jaws of Error. The yes-or-no answer, for example, is a way of ensuring a chain of statements i.e. a sort of deduction.¹⁷¹ Ryle has given us a picture of a purely formal exercise with *Niederschläge* showing that the exercise of dialectic preceded the conversations of Socrates; or rather that Socrates' conversations were "rule governed concatenations of questions."¹⁷² He suggests contests had a time limit¹⁷³; but the evidence¹⁷⁴ suggested is woefully inadequate. It was a boast of Plato's that the philosophical life and philosophical discussion did not run to the clock. This freedom from time produced a more generous spirit.¹⁷⁵ But it followed too that an argument was never finished, because it was all part of one argument. The meeting broke up only because Socrates or someone had to leave.¹⁷⁶ Such is the ideal life, totally devoted to the one argument of philosophy. When Socrates is asked to explain his whole system in five minutes he refuses and adopts arguments to the limited tasks in hand.¹⁷⁷ The correct length for discussions become

170. 159 a 32 ff.

171. 158 a 17 f.

172. Ryle 1966 p.119.

173. op.cit.p.105; Moraux p.285 n 3.

174. Top. 158 a 25 f; 161 a 9f; 183 a 25 f.

175. Theæt. 172 b 5; 154 e 8; 187 d.

176. Euthyphro 15 e 3 f; Laches 201 c 4; Lysis 223 a 2 f; Prtgs. 362 a 2. etc.

177. Meno 76 a 10; Theæt 183 c 5; Rp.504 c 9; 533 a; Rhtic. 277 b 5. etc.

a matter of concern for Plato and the discussions themselves become longer and longer. So when Aristotle says it is possible to address one's conclusions to the time (183 a 25) or that blaming the time is sophistical (161 a 10) we must put the remarks into context (159 a 9). We have dealt earlier with some of Ryle's arguments for audience participation; the arguments Moraux finds for this in Aristotle are not much better.¹⁷⁸ For when Aristotle warns against upholding an unpopular thesis (*ἀδόξον*), he distinguishes the two senses of unpopular - unaccepted (proposition), despised (character) - and it is true that a conversationalist must remember such pitfalls. It does not imply that audience - popularity was important; any more than that audience judgement is important when it cannot recognise a valid conclusion put in the form of a question.¹⁷⁹ Fine judges!

We are left with Ryle's primary questions:

1. What is there in dialectic to correspond to the rhetorical profession?¹⁸⁰
 - There seems to be nothing. Aristotle did not survey the practice of a profession in order to write the Topics; but he created the 'space' for a new science, partly parallel with rhetoric, partly generated from his own definitions. ~~Like~~ Plato, he probably regarded certain sorts of argument as eristical, even if they occurred in a speech or a song. He also formulated Plato. For example 159 a 20 ff he says "The function of the answerer is to make it seem that the impossible or paradoxical is not his fault but due to ^{the} thesis." If the questioner must mislead, then so must the answerer - though this sets up a strange tension with the mechanical answer. The answerer, as so often in Plato, must claim that he does not mean the words of the thesis, but something else.¹⁸¹ Aristotle considers this shift (in e.g. Thrasy Machus) as psychologically likely.

178. op.cit. p.278 n.1: Top.160 b 21f.

179. Top. 158 a 8 f.

180. Ryle 1966 p.104.

181. cf 170 b 12.

182. op.cit. p.127.

2. "What is the "concrete or so to speak, Wednesday evening activity of prosecuting dialectic"?¹⁸². This is the most difficult question. The emphasis is on training, and on not discussing real opinions. But what leads to this formalisation is not the "competitive game" of question and answer, but the increasing bloodlessness of the concepts a man was trained in. There may be many possible replies to questions about justice; but possible replies to questions about wholes, parts and ones are few in number and in principle exhaustively classifiable, like a division. Perhaps "training" consisted in the practice of the methods, though method was not philosophy, which was kept as a reward. Lloyd has noticed that Aristotle's examples of division come mainly from Plato's published work ...¹⁸³ It is very difficult to get at what went on in the School of the Academy.^{183a} Perhaps the Platonic "Definitions" were discussed - but much of this is a digest of published work. Whatever the answer, it is unlikely that "eristical moots" were held as Ryle wants them. If they were held, they might have included rather a lot of ritual, deference and piety. But this weak possibility is no evidence at all that the method was in existence before Socrates, or even perhaps Plato.

182. op.cit p.127.

183. Lloyd G.E.R. Polarity and Analogy p.159.

183a. Levinson, Cherniss, Riddle of the Early Academy p. 60f.

VI

The obvious candidate for the discovery of dialectic is Socrates. The answer of Sidgwick's¹⁸³ was denied by Thompson¹⁸⁴ and Gomperz¹⁸⁵ who argued that Protagoras had a share. Burnet¹⁸⁶ suggest the eristics were Megarian; and Taylor¹⁸⁷ declares roundly "Euthydemus and his brother are borrowing and degrading the logical method of Zeno. "Ryle's attempt to found non-Socratic eristic fails; and there is little point in calling Gulley's¹⁸⁸ earlier method eristic." But it is true that the method of dialectic originated by Socrates has close connection with his own and the previous generation. However, our evidence is merely linguistic, and we cannot connect the origin of dialectic or of antilogy to any theory or theorist.

Antilogy and its accompanying metaphors of cockfighting and wrestling turn up in all sorts of places at the end of the Fifth century - medical, comical, rhetorical and judicial. It is used as a byword for philosophical talk; but it refers simply to the talk and sometimes to the maintaining of contrary arguments by different or the same people. It is used in ethical contexts and in contexts relating to techne - it was itself a test of rhetorical ability. Something must have given the term a new lease of life; and the philological facts seem to centre on Protagoras, not on Zeno. But of method we can say nothing. Almost the same situation applies to *Kata*

Βραχὺ διαλέγεσθαι

Gulley has suggested that Protagoras used question and answer, but for dramatic purposes.¹⁸⁹ Question and answer is a natural educational/judicial method. What is likely is that from the

183. Journal of Philology Vol.IV 298.

184. Meno 276 ff.

185. Sophistik und Rhetorik

186. Greek Philosophy 139; 189.

187. Taylor II p.92.

188. Philosophy of Socrates; p.26.

189. op.cit. 29, 32.

beginning Socrates' required a different sort of answers from anybody else; and was therefore incomprehensible to his generation in terms of their own slogan

Methods there were for presenting opposed arguments. One of these might have been the dialogue form itself, with which ~~both~~ Prodicus and Hippias are credited. Thucydides, Melian dialogues are according to Jaeger¹⁹⁰ "a sophistic device which occurs nowhere else in his book, to show the two opponents parrying argument by argument, question by answer..." Wilamowitz is breathless over the possibility that the root form is the drama (of opposing speeches). "Der Gorgias ist eine Tragödie; er ist gewissermassen als Komplement zum Protagoras geschrieben; aber der Protagoras ist dann eine Komödie."¹⁹¹ But Plato was always aware he was writing dialectic and undoubtedly used the techniques of his time, among which is antilogy. Mastery of antilogy was a proof that whatever it was Plato was writing was a science, though we can only guess at the sort of science. Romilly¹⁹² has given us some idea of the rules of composition governing rhetorical opposed speeches, using as a clues the correspondence of phrases and unlikely symmetries; but she goes too far in attributing her method to Protagoras. Plato in his maturity used a techne based on metaphysics and ^{on} the analysis of concepts to give himself the mastery of antilogy that would support his claim to be as scientific as any other tradesman in words. But it is unlikely that his techne came straight from Elea; and more likely that it came from an analysis of patterns of dialectic, which in turn led him to rethink Eleatic doctrines. One is required to think behind the antilogy.

But having established a techne he was immediately in competition with other technai and with the sophistic tradition of epideictic and protreptic writing.¹⁹³ In addition, there was the pressure of other Socratic dialogues, with their burden of social polemic and philosophical refinement, forcing the

190. Jaeger *Paideia* I 398 (Higher).

191. Platon 1948 92-4.

192. *Histoire et Raison* chez Thucydide 1966 p.180 ff.

193. Gaiser 1959 - passim.

Platonic conversations to differentiate themselves from their origins and their cousins. Robin may not be right in claiming that Plato is the first to use the dialogue form; but he must be right with so many others in generating the Socratic dialogue out of the Socratic activity - conversation, protreptic and example.¹⁹² Much of the Socratic activity was posthumous.

But the assumptions of the conversational method Plato started with seem to be plain. A mastery of arguments for and against incurs the suspicion that you are an expert: Socrates denies he is an expert but performs the trick. In an antilogy, both sides have a right to speak: nothing is more natural than the Socratic injunction to "accept the outcome of my argument; or else develop one of your own."¹⁹³ But his purpose, though it can be mistaken for antilogy, is the propounding of a philosophical difficulty - e.g. the search for universal definitions, in which many apparently antilogical set backs are met with. Similarly Socrates in the presence of Protagoras and Gorgias talks of *κατὰ πρᾶξιν διαλέγεσθαι* - but all he really means is "conversation", the 'shortness' is there for philosophical purposes.

No restrictions are placed on the method of a conversation by most people. Each interlocutor brings skills to bear that he has learned outside conversation. Socrates, too, uses ethical and philosophical lore that he learns of outside conversation. But he insists that the discussion or debate should be in miniature as it were: the miniature has its own qualities; and these specifically miniature qualities are analysed by Plato. The emphasis on non-technical, non-methodical language, the choice of ordinary words like *διαλέγεσθαι, οὐνεμα, φίλος, πρᾶγματα* is a clue to Socrates' answer to our main question: though from the beginning he was a philosopher rather than an honest man, he thought some matters of philosophy were too important to be left for philosophical method.

192. Robin: Platon p.20; 22.

193. e.g. Gorgias 509 a 2; 461 e; Meno 75 d.

~~327~~
322.

The problems had to be examined entire in every way for as long as it took to reach ... whatever it is one should reach. The index of his success at breaking down the limitations of contemporary philosophical methods is the general failure of attempts to find historical origins for the Platonic dialectic.

ABBREVIATIONS AND JOURNALS

Acta Phil. Fennica	Acta Philosophica Fennica	Helsinki
A.J. Ph.	American Journal of Philology	Baltimore
	Antichthon	Sydney
	Apeiron	Monash, Victoria
Arch. f Gesch of Phil.	Archiv fur Geschichte der Philosophie	Berlin
Bull Hist of Medicine	Bulletin of the History of Medicine	Baltimore
B.A.G.B.	Bulletin de l'Association G. Bude	Paris
B.I.C.S.	Bulletin of the Institute of Classical Studies	London
C.Ph.	Classical Philology	Chicago
Cl. R.	Classical Review	London
C.Q.	Classical Quarterly	Oxford
	Dialogue	Montreal
Fdats of Language	Foundations of Language	Dordrecht
Gesch der Math.	Quellen und Studien zur Geschichte der Mathematik (ed D. Neugebauer)	Berlin
	Gnomon	Munich
H. S.CP.	Harvard Studies in Classical Philology	Cambridge, Mass.
	Hermes	Wiesbaden
J. Am Phil Soc.	Journal of the American Philosophical Society	Philadelphia
J. H.S.	Journal of the Hellenic Society	London
J. Hist Phil	Journal of the History of Philosophy	Berkeley
J. Phil	Journal of Philology	London
	Kant Studien	Berlin & Cologne

	Mind	Edinburgh
	Mnemosyne	Leyden
	Monist	Chicago (La Salle)
Mus. Helv.	Museum Helveticum	
P.W.	Panly-Wissowa: Real- Encyclopädie der Classische Altertums wissenschaft	Stuttgart
Ph. R.	Philosophical Review	New York
Philos. Qn.	Philosophical Quarterly	St. Andrew's
	Phronesis	Assen
Proc. Cantab Phil. Soc.	Proceedings of the Cambridge Philological Society	Cambridge.
Rev. Met.	Review of Metaphysics	New Haven
Rh. Mus.	Rheinisches Museum für Philologie	Bonn & Frankfurt
Riv. Crit di Storia della filosofia	Rivista Critica di Storia della Filosofia	Milan
R.Ph.	<i>Revue de Philologie</i>	<i>Paris</i>
	Studii Clasice	Bucuresti 5
T.A.P.A.	Transactions of the American Philological Association	Boston
Y. Class.Stud.	Yale Classical Studies	New Haven

Bibliography of modern works cited in the text with the addition of a few supplementary works. The Abbreviations are mainly those of L'Annee Philologique.

- Ackrill J. 1955 Sympleke Eidon B.I.C.S. p.31-5 in Allen 1965,
1957 Plato and the Copula: Sophist 251-9 JHS
p.199-206, p.207-219.
1966 Plato on False Belief: Theaetetus 87-200 Monist
p.383-402
- 1973 Anamnesis in the Phaedo: Remarks on 73c-5c (Essays...
to G. Vlastos 1973 (p.177-195)
- Adam J. 1902 The Republic of Plato 2 vols. Cambridge
1913 Platonis Crito. Cambridge
- Allan D.J. 1940 ed. Plato's Method of Dialectic (J.Stenzel)
Oxford
1954 The Problem of Cratylus A.J. Ph. p.271-87
- Allen R.E.. 1959 Anamnesis in Plato's Meno and Phaedo, Rev.
Met. p.165-74.
1960 Participation and Predication in Plato's
Middle Dialogues Ph. R. p.147-64 (in Allen 1965)
1961 Argument from Opposites in Rp V Rev. Met.
p.325-35.
1965 ed. Studies in Plato's Metaphysics. London
1970 Plato's Euthyphro and the earlier theory
of Forms. London
- Andropoulos 1971 Alcmaeon reexamined. Studii Clasice XIII 7-14.
- Anscombe E. 1966 The New Theory of Forms Monist L. 403-20.
- Archer-Hind R.D. 1894 The Phaedo of Plato London
- Bergson 1971 Eiron and Eironeia Hermes XCIX 400-22 London
- Bluck R.S.. 1955 Plato's Phaedo London

- 1957 *Stoicism* in the Phaedo and Platonic
Dialectic Phronesis p.21-31.
- 1959 Plato's Forms of Equal Phronesis p.5-11.
- 1961 Plato's Meno Cambridge.
- 1963 Knowledge by acquaintance in Plato's
Sophist. Mind 259-63.
- Bondeson W.B. 1969 Perception, true opinion and knowledge
in Plato's Theaetetus Phronesis p.111-22.
- 1969 The Dream of Socrates and the conclusion
of the Theaetetus Apeiron p.1-13.
- Booth N.B. 1956 Plato, Sophist 232a etc., CQ.L. 89-90.
- Bourgey L. 1953 Observation et Expérience chez les Médecins
de la collection Hippocratique. Paris
- Brentlinger J. 1972 Incomplete Predicates and the Two World
Theory of the Phaedo Phronesis p.61-79.
- O'Brien M.J. 1963 Unity of the Laches Y. Class, Stud.XVIII
p.133-47.
- Brown M. 1967 Plato disapproves of the slave-boy's answer
Rev. Met. p.57-93.
- 1969 Theaetetus: Knowledge as Continued learning
J.H. Phil 359-79
- 1972 The Idea of Equality in the Phaedo Arch f.
Gesch. d.Phil 24-36.
- Burge E.L. 1972 The irony of Socrates Antichthon p.5-17.
- Burnet J. 1910 Phaedo Oxford
- 1912/68 Greek Philosophy London
- Burnyeat M.F. 1970 Material and Sources of Plato's Dream
Phronesis 101-22.
- Büchner W. 1941 Über den Begriff der Eironeia Hermes 339-58.
- Campbell L. 1883 The Theaetetus Oxford

- Capelle A.M. 1960 Bemerkungen zu Platons Theaetet Hermes
p.265-80.
- 1962 Zur Frage nach den *Καὶ ὅτι* Theaitet 156a
Hermes p.288-94.
- Cherniss H. 1944 Aristotles' Criticism of Plato and the
Academy
- 1945 The riddle of the early Academy
- 1951 Plato as a mathematician Rev. Met. 395-25.
- 1953 Relation of the Timaeus to Plato's later
dialogues A.J.Ph. (Allen 1965 33-79)
- 1955 Metaphysics 987A32-B7 A.J.Ph. 184-6.
- Cohen M. 1969 The Logical Background of Plato's writing
J.H.Ph. 111-41.
- Cope E.M. & J.E. Sandys 1877 Aristotles Rhetoric III vols
(Cope-Sandys). *Cambridge*
- Cooper N. 1966 The importance of *διδόσκειν* in Plato's Theory
of Forms CQ65-9.
- Cooper J.H. 1970 Plato on Sense Perception and knowledge
(The. 184-6) Phronesis p.123-46.
- Cornford F.M. 1907 Thucydides Mythistoricus London
- 1932 Mathematics and Dialectic in the Republic
VI-VII (Now in Allen 1965 p.61-95)
- 1935 Plato's Theory of Knowledge (P.T.K) London
- 1937 Plato's Cosmology London
- 1941 The Republic of Plato Oxford
- 1952 Principium Sapientiae Cambridge
- Crombie I.M. 1962 An examination of Plato's Doctrine
vol I London
- 1963 An examination of Plato's Doctrine
vol II London
- Cross R.C. and Woosley A.D. 1964 Plato's Republic London

- Denniston J.D. The Greek Particles 1st Ed. 1924 Oxford
- Demos R. 1959 Partly So and Partly Not So Mind p.51-56.
- Detel W. 1973 Zur Argumentationsstruktur im ersten
Hauptteil von Platons Aretedialogen Arch.
f.Gesch. Phil. 1973 p.1-29.
- Dicks R.D. 1970 Early Greek Astronomy to Aristotle. London
- Dietel H. 1966 Platons Laches and Charmides Diss Freiburg.
- Diller H. 1932 *ἡ ἀπορία τῶν ὁδῶν τῶν φαινομένων* Hermes p.14-42.
1952 Hippokratische Medizin und Attische
Philosophie Hermes p.385-609.
- Dodds 1959 Plato: Gorgias Oxford.
- Dorter, R.K. Equality, Recollection and Purification,
Phronesis p.198-218.
- Dover K.J. 1968 Clouds of Aristophanes.
- Edelstein L. 1931 *ἡ συλλογὴ τῶν ὑποθέσεων* und die sammlung Hippokratischen
corpus. Berlin.
1940 Platonism or Aristotelianism Bull. Hist.
of Medicine 757169
- Einarson B. 1936 On certain mathematical terms in Aristotle's
Logic A.J.Ph. p.33-54, 151-72.
- Erbse H. 1968 über Platons Methode in den sogenannten
Jugenddialogen Hermes 21-40.
- Farquharson A.S.L. 1923 Socrates' diagram in the Meno of
Plato 86e-87a CQ 21-6
- Ferguson A.S. 1921 Plato's Simile of Light I; the Similes
of the Sun and the Line CQ131-52
1922 Plato's Simile of Light II; The Allegory
of the Cave CQ 15-29
1934 Plato's Simile of Light Again CQ p.190-210.

- Festugière A.J. 1948 L'Ancienne Médecine (V.M.) Paris
- Fraenkel J. 1942 Zeno of Elea's attacks on plurality
A.J.P. p.1-25/193-06.
1960 Eine Stileigenheit der Frühgriechischen
Literatur p.40-96 in Wege und Formen
frühgriechischen Denkens 1960 München
- Friedlander P. Plato vols I, II, III 1958, 1964,
1964 (tr) London
- Gadamer H.G. 1968 Platons ungeschriebene Dialektik p.3-30
of Idee und Zahl ed Gadamer *Heidelberg*
- Gagarin 1969 The Purpose of Plato's Protagoras T.A.
P.A. 133-164.
- Gaiser K. 1959 Protreptik und Paränese bei Platon Stuttgart.
1964 Platons Meno und die Akademie Arch.f.
Geschd. Phil 241-292.
- Gallop D. 1963 Plato and the Alphabet Ph. R. 364-376.
1961 Justice and Holiness in Plato's Protagoras
Phronesis 86-93.
- Gardiner E.N. 1930 Athletics of the Ancient World Oxford
- Goldschmidt V. 1947 Les Dialogues de Platon Paris
1947 Le paradigme dans la dialectique
platonicienne Paris
1950 Sur le problème du système de Platon
(Riv. Crit. di Storia della Filosofia p.169-178.
- Gombrich E.H. 1968 Art and Illusion London
- Gomperz H. 1912 Sophistik und Rhetorik Leipsig & Berlin
1933 *ἡ τῶν σοφιστῶν καὶ ρητορῶν* Hermes 341-43.
- Goodrich W.J. 1903 On Phaedo 96A-102A CR p.381-4
1904 On Phaedo 96A-102A CR p.5-11.

332331

- Gould J. 1955 The Development of Plato's Ethics Cambridge
- Grote G. 1884 A History of Greece (12 vols) London
- Gulley N. 1952 Ethical Analysis on Plato's Earlier Dialogues CQ p.76-82.
- 1958 Greek Geometrical Analysis Phronesis p.1.14.
- 1962 Plato's Theory of Knowledge London
- 1969 The Philosophy of Socrates London
- Guthrie W.K.C. 1966 Plato's Protagoras and Meno London
- 1969 History of Greek Philosophy vol II Cambridge
- 1971 History of Greek Philosophy!The Sophists Vol III (i) "
- 1971 History of Greek Philosophy:Socrates vol III(ii) "
- Hackforth R. 1938 The Aviary Theory in the Theaetetus CQ 27-9.
- 1942 Plato's Divided Line and Dialectic CQ 1-9.
- 1955 Phaedo Cambridge
- 1957 Platonic Forms in the Theaetetus CQ p.53-58.
- 1957 Notes on Plato's Theaetetus Mnemosyne p.128-40.
- Haynes R.P. 1964 The Form Equality as a set of Equals Phdo 74b-c Phronesis 17-26.
- Hamlyn D.W. 1955 The Communion of Forms and the development of Plato's logic (Philos Q. 287-302)
- 1958 Eikasia in Plato's Republic Philos Q.14-23.
- 1968 Koine aisthesis Monist 195-209.
- Hare R.M. 1965 Plato and the Mathematicians (ed Bambrough, R. New Essays in Plato and Aristotle p.21-38).
- Heijboer a. 1955 Meno 86E-87A (Mnemosyne 1955 p.89-122).
- Heinimann F. 1961 Eine vorplatonische Theorie der *Tex'n* Mus Helv 1961 (105-30).

33332

- Heinimann F. 1965 Nomos und Physis Basle
- Heitsch E. 1969 Ein Buchtitel des Protagoras Hermes 292-6
- Hicken W.R. 1957 Knowledge and Forms in Plato's Theaetetus
J.H.S. 4-53 (now in Allen 1965 p.185-198).
- Hirzel R. 1895 Der Dialog (Hildesheim 1963).
- Hoerber R.G. 1964 Plato's Greater Hippias Phronesis 143-55.
- Holland, A.R. 1973 An Argument in Plato's Theaetetus 184-6
Phil Q p.97-116.
- Huber C.E. 1964 Anamnesis bei Plato Munich
- Huby P.M. 1959 Phaedo 99D-102A Phronesis 12-14.
- Hudson-Williams H.L. 1948 Thucydides, Isocrates and the
rhetorical method of composition CQ 76-81.
- Jacoby F. 1950-8 Die Fragmente der Griechischen
Historiker 1950-8 Leyden
- Jaeger W.W. 1939-45 Paideia (Trans. Highet) 3 vols Oxford.
- Joly R. 1961 Platon et la medicine BAGB 435-51
- Jowett 1953 Dialogues of Plato 4 vols 4 ed Oxford
- Kahn C.H. 1966 The Greek verb "to be" and the concept
of being. Foundations of Language p.245-65.
- Kerferd G.B. 1954 Plato's Noble Art of Sophistry CQ 84-90.
1955 Gorgias on Nature or that which is not
Phronesis 3-25.
- Kirk G.S. 1951 The Problem of Cratylus A.J.Ph. 225-54
1962 Heraclitus the Cosmic Fragments Cambridge.
- Klein J. 1965 A Commentary on Plato's Meno
Chapel Hill, North Carolina.
- Kraemer H.J. 1969 ~~ETIENNA~~ THE ^{ΠΥΡΙΑΣ} Arch.f.Gesch. Phil 1-30.
- Kranz W. 1937 Vorsokratisches IV Die sogenannten ^{ΛΟΓΟΙ} ~~ΛΟΓΟΙ~~ Hermes 223-32.

334 333.

- Kuhn J.H. 1956 System- und Methodenprobleme im
Corpus Hippocraticum (Hermes Einzelschriften
Heft II).
- Lasserre, F. 1964 The Birth of Mathematics in the
Age of Plato London
- Lee H.D.P. 1935 Geometrical Method and Aristotle's
Account of First Principles CQ p.113-24.
1936 Zeno of Elea Cambridge
1939 The Aviary Simile in the Theaetetus CQ 208-11.
- Levi A. 1940 Questioni Platoniche R. Ph. p.110-26.
1940 On Twofold Statements A.J.P. p.292-307.
- Levinson R.B. 1953 In Defence of Plato Cambridge, Mass.
- Lewis F.A. 1973 Foul play in Plato's Aviary p.262-84
(Exegesis and Argument Essays presented G.
Vlastos 1973).
- Lloyd G.E.R. 1963 Who is attacked in Ancient Medicine?
(Phronesis 108-26).
1966 Polarity and Analogy Cambridge
1968 Plato as a natural scientist J.H.S. 78-92.
1970 Experiment in Early Greek Philosophy
Proc. Cantab. Philol Soc. p.50-72.
- Longrigg J. 1963 Philosophy and Medicine Some Early Two
actions HS CP p.147-176.
- Luce J.V. 1964 The date of Cratylus A.J. Ph. 136-154.
1965 The Theory of idea in the Cratylus
Phronesis 21-36.
- McDiarmid J.B. 1953 Theophrastus on Presocratic causes HS CP
85-156, Furley-Allen 1970 p.178 1-238.
- McDowell J. 1973 Theaetetus Oxford.

- Malcolm J.F. 1962 The Line and the cave Phronesis p.38-45
- Maguire J.P. 1973 Plato and Protagoras Phronesis p.115-35.
- Marrou H.I. 1950 Histoire de L'Education dans
L'Antiquité. Paris
- Marcovich 1965 P.W. Heraclitus Supp.X
- Mills K.W. 1957 Plato's Phaedo 74b7-C6 Phronesis 128-47
1958 Plato's Phaedo 74b7-C6 Phronesis 40-71.
1968 Some aspects of Plato's Theory of Forms
Timaeus 49Cff Phronesis 145-70.
1970 Plato's non-hypothetical starting point
D.UJ p.152-9.
- Moravcsik J.M.E. 1963 Being and Meaning in the Sophist Acta
Philosophica Fennica 23-78.
1971 Learning as recollection (Vlastos
1971 p.53-69.
- Murphy N.R. 1932 The Simile of Light in Plato's Republic
CQ. 93-102.
1934 Back to the Cave CQ. p.211-2.
1951 The Interpretation of Plato's Republic
Oxford.
- Muller C.W. 1967 Protagoras uber die "gotter Hermes p.140-158.
- Nahnikian G. 1955 Plato's Theory of Sensation Rev. Met.
IX p.129-48, 306-27.
- Nehamas A. 1972 Predication and Forms of opposition
in the Phaedo, Rev. Met. 1972-3 p.462-91.
- Nettleship R.L. 1901-1964 Lectures on the Republic of Plato.
- Norden, E. 1923 Agnostos Theos Leipzig & Berlin.
- Owen G.E.L. 1953 The Place of the Timaeus in Plato's
Dialogues CQ p.79-95 (rep. Allen 1965 p.313-39).
1957 A Proof in the *τὸ ἐπὶ ἰδέων* J.H.S. 103-111.

- Owen G.E.L. 1961 *τὸ ἐν αὐτῷ πρὸς τὸν ἀριστοτέλη* (Aristote et les problemes de Methode p.83-103 Ed. Mansion, S., Louvain).
- 1968 Dialectic and eristic in the Treatment of the Forms p.103-25 in 1968 Aristotle on Dialectic (Ed. Owen) Oxford.
- Pavlovskis, Z. 1968 Aristotle, Horace and the Ironic Man C. Ph. 22-41.
- Peck A.L. 1952 Plato and the *megala gēnē* of the Sophist CQ 32-50.
- 1963 Plato's Sophist p.46-66.
- Philips 1973 Greek Medicine London.
- Piaget J. 1969 The Psychology of the Child ^(tr Mays) London.
- 1972 Genetic Epistemology (tr Mays) London.
- Pomeroy, S.B. 1971 Optics and the Line in Plato's Rp. CQ 389-92.
- Popper K.R. 1967 The Open Society and its Enemies vol. I. London.
- 1972 Objective Knowledge London.
- Prauss G. 1966 Platon und der logische Eleatismus Berlin.
- Prior A.D. 1967 Correspondence Theory of Truth (Encyclopaedia of Philosophy Ed. Edwards, P. vol III p.223-132. N.Y.)
- Radermacher L. 1951 Artium Scriptores Vienna
- Ramage E.S. 1961 An early trace of Socratic Dialogue A.J. Ph. 418-24.
- Raven J.E. 1953 Sun Divided Line and Cave CQ 22-32
- Regenbogen O. 1930 Eine Forschungsmethode antiker Naturwissenschaft Gesch der Math I ii ed. Neugebauer, O. Berlin

- 1940 P.W. Supp VII Theophrastus
- Ribbeck O. 1876 über den Begriff des *ἔργου* Rh.Mus. 281-400.
- Robinson R. 1936 Analysis in Greek Geometry Mind p.464-73.
- 1942 Plato's Consciousness of Fallacy Mind
p.96-114.
- 1953 Plato's Earlier Dialectic 2nd Ed. Oxford
- 1950 Forms and Error in Plato's Theaetetus
Ph. R.3-30.
- 1963 Up and Down in Plato's Logic A.J. Ph. p.300-3.
- 1969 Essays in Greek Philosophy (including
1, 2, 3) Oxford.
- Robinson, R. 1971 Plato's Separation of Reason and Desire
Phronesis pp.38-48.
- Rose, L.E. 1964 On hypothesis in the Cratylus as an
indication of the place of the dialogue
Phronesis 114-6.
- 1966 The Deuteros Plous in Plato's Phaedo
Monist 464-73.
- 1966 Plato's unhypothetical first principle
J. Hist. Ph. 189-98
- 1970 Plato's Meno 86-9 J. Hist. Ph. 189-98.
- Rosenmeyer T.G. 1960 Plato's Hypothesis and the Upward Path
A.J. Ph. 393-407.
- Ross 1949 Aristotle's Prior and Posterior
Analytics Oxford
- 1951 Plato's Theory of Ideas Oxford
- Runciman W.G. 1959 Plato's Parmenides (Now in Allen
1968 p. 149-184).
- 1961 Plato's later Epistemology Cambridge

339 337

- Ryle G. 1939 Plato's Parmenides
1960 Letters and syllables in Plato Ph.R. 431-51.
1966 Plato's Progress Cambridge
1968 Dialectic in the Academy p.69-79 in
Owen 1968.
- Sayre K.M. 1969 Plato's Analytical Method Chicago
- Savan, D. 1963 Self-Predication in Protagoras 330-1
Phronesis 130-5
- Schaerer, R. 1969 La Question Platonicienne (2nd Ed)
Neuchatel
- Schuhl P.M. 1969 La Fabulation Platonicienne (2nd Ed)
Paris
- Shorey P. 1888 The Interpretation of the Timaeus A.J.F.
395-418.
1903 Unity of Plato's Thought Chicago
1927 Platonism and the History of Science
J. Am. Phil. Soc 1927 159-82 Chicago
1933 What Plato Said Chicago
- Sidgwick H. 1872 The Sophists I p.288-307 J.Phil. vol IV
1874 The Sophists II p.66-80 J. Phil vol V
- Skemp J.B. 1952 Plato's Statesman London
- Snell B. 1964 Scenes from Greek Drama Berkeley
- Solmsen F. 1929 Die Entwicklung der Aristotelischen
Logik und Rhetorik
The Eleatic One in Melissus (Medelingen der
koninklijke Nederlandse Academic van Wetenschappen
aafd. Letterkunde (Nieuwe Reeks Deel 32 No.8 p.221-33)
1971 Parmenides and the Description of Perfect
Beauty in Plato's Symposium A.J. Ph. 62-70.

- 1970 The Tradition about Zeno of Elea Reexamined
Phronesis 116-41.
- Sorabji R.K. 1972 Aristotle on Memory London
- Sprague R.K. 1962 Plato's use of Fallacy London
- 1965 Euthydemus New York
- 1967 Parmenides' sail and Dionysodorus
Phronesis p. 81-8.
- 1968 A Platonic Parallel in the Dissoi Logoi
J.H. Ph. p.160-1.
- 1968 Dissoi Logoi or Dialexeis ind p.155-67.
- 1969 Socrates' safest answer Phaedo 100 D
- Hermes p.632-5.
- 1972 The Older Sophists Columbia
- Stark R. 1953 Sokratisches in der Vögeln des Aristophanes
Rh Mus. 77-89.
- Stahl H.P. 1961 Ansätze zur Satzlogik bei Platon Hermes
409-51.
- Steinmetz 1966 Zenophanesstudien Rh. Mus. p.13-73.
- Stenzel J. 1940 Plato's Method of Dialectic (Stenzel:
Allen) P.W. IIIA Speusippus Oxford
- Stephanus H. 1954 Thesaurus. Graz
- De Strycker E. 1963 Review of Bluck's Meno Gnomon 142-9.
- 1968 Concepts-Clés et Terminologie dans les
Livres II à VII des Topiques Owen 1968 p.141-63.
- Tanner R.G. 1970 *Solvon* and Plato's cave CQ81-91.
- Tarrant D. 1957 Phaedo 74A-B J.H.S. 124-126.
- Taylor A.E. 1911 (I) Varia Socratica Oxford
- 1960 (II) Plato, The Man and His Work London
- 1928 (III) A Commentary on Plato's Timaeus
London
- 1934 (V) Laws London
- 1961 (IV) Sophist and Statesman London

- Taylor C.C.W. 1967 Plato and the Mathematicians Phil.
Qu 193-203
1969 Forms as Causes in the Phaedo Mind 45-59.
- Thompson E.S. 1901 Meno London
- Tigner S.S. 1971 On the Kinship of the nature in
Plato's Meno Phronesis I p.36-49.
- Trevaskis J.R. 1956 Sophistry of Nobel Lineage Phronesis
I p.36-49.
- Trieber C. 1892 die *Διαλέξεις* Hermes p.210-48.
- Untersteiner M. 1954 The Sophists (trans. Freeman) Oxford.
- Verdenius 1964 *ἡ δὲ κατὰ* Mnemosyne p.387.
- Vernant J.P. 1969 Les Origines de la Pensée grecque
(2nd Ed) Paris
- Vlastos G. 1956 Ed. Protagoras New York
1965 Anamnesis in the Meno Dialogue 143-67.
1967 Zeno of Elea (Enc. of Phil. ed. Edwards).
1969 Reasons and Causes in the Phaedo (Phil
Rev. 74-8).
1971 Ed. Plato (including 1969) New York.
1972 Unity of Virtues in the Protagoras Rev.
Met. 415-58.
1973 Platonic Studies (including 1972) Princeton.
1974 Exegesis and Argument - Essays Presented
to Gregory Vlastos Ed. Lee, Mourelatos, Rorty.
Assen.
- Wedberg A. 1955 Plato's Philosophy of Mathematics
Stockholm
- Wikramanayake G.S. 1965 Das Verhältnis der Dialektik und der
Rhetorik: diss. Gottingen.
- Wilamowitz-Moellendorf 1948 Platon (3rd Ed. Snell).

- Wilpert P. 1956 Aristoteles und die Dialektik Kant-Studien vol 48 p. 24-57.
- Witte, B. 1964 der *ἐκὸς λόγος* in Plato's Timaios Arch. f Gesch der Phil p. 1-16.
- Xenakis J. 1957 Plato's Koina Kant-Studien vol 48 p.167-81.