

Dialectic and Method in Aristotle

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In his 1961 paper “*Tithenai ta Phainomena*”¹, G. E. L. Owen addressed the problem of the relationship between science as preached in the *Analytiks* and the practice of the Aristotelian treatises. However, he gave this venerable crux a novel twist by focusing on a different aspect of the issue. According to the *Prior Analytiks*, it appears that the first premises of scientific demonstrations must be obtained from collections (*historiai*) of facts derived from empirical observation. However, many of the treatises seem to make little use of empirical inquiry and instead concern themselves more with ‘conceptual analysis.’ This is especially true in the *Metaphysics* and the ethical treatises, but it is also very much characteristic of the *Physics*. How are these two kinds of inquiry related?

Owen took his cue from Aristotle’s customary procedure of beginning his account of a subject with a *diaporia*, a survey of the available data and the views of others (including his predecessors) in which he notes the ‘puzzles’ (*aporiai*), i.e. inconsistencies and paradoxical consequences, that result from them. Owen’s unifying proposal was that both empirical data and the opinions of others can be described as ‘appearances’ (*phainomena*), once we recognize that there is a crucial ambiguity in this term: not only ‘what is apparent’ (data of empirical observation) but also what ‘appears to’ people (the opinions of people, at least those with some level of general acceptance or philosophical currency). It is then possible to describe Aristotle’s overall method in philosophical inquiry as beginning with the appearances and undertaking to resolve the puzzles, while retaining as many of those appearances as possible. Moreover—and crucially—Owen was able to assimilate Aristotle’s philosophical method to dialectic, on a certain understanding of that term. If, as he supposed, dialectic is ‘argument from *endoxa*,’ where *endoxa* in turn are commonly-held opinions, then it is to be expected that some form of dialectic will be the source of the first premises of scientific demonstrations.

This article, like so much of Owen’s work, initiated a wealth of further studies. It has now become a commonplace among many interpreters that Aristotle’s method of inquiry was dialectical, where that in turn means roughly what Owen took it to mean. Terence Irwin, in particular, has developed a modified form of Owen’s view in extensive detail.²

To confront the problem how argument from ‘common beliefs’, which are not necessarily all true, can establish the most secure of principles, Irwin first distinguishes between ‘pure dialectic,’ which is simply argument from the opinions of ‘fairly reflective people after some reflexion’, and a more critical type of argument he calls ‘strong dialectic.’ The latter, according to Irwin, emerges in the *Metaphysics* and elsewhere

¹83–103 in S. Mansion, ed., *Aristote et les problèmes de méthode* (Louvain, 1961). Reprinted in Owen, *Logic, Science and Dialectic*, ed. Martha Nussbaum (Cornell 1986). I cite page numbers from this edition.

²Terence Irwin, *Aristotle’s First Principles* (Oxford: Clarendon Press, 1988).

as a way of securing the otherwise indemonstrable first principles on which scientific demonstrations rest: Aristotle came to see the inadequacy of the appeal to ‘intuition’ for the justification of these first premises which he had made in *Posterior Analytics* II.19 and sought its replacement in a reconsidered form of dialectical proof.

Irwin’s defense of this picture rests in part on detailed analyses of the argumentative procedures of the treatises. To challenge these would require a comparably detailed study of these analyses. I do not claim to offer anything like that here. Instead, I want to concentrate on the more direct textual basis for the view that Aristotle thought dialectic, defined as a technique of arguing from a special class of premises called *endoxa*, could provide a form of justification of the first principles of sciences. Generally speaking, that evidence can be divided into two parts. First, there are several proof texts for certain critical theses. Second, there is a certain picture of the *endoxa*, the ‘common beliefs’ on which dialectical arguments rest. I would like to raise some problems for each of these. My claims are that (1) if we take account of their contexts and what they actually say, the proof texts turn out simply not to support the claims which have been built on them; (2) the interpretation of the *endoxa* of dialectic rests on a serious misunderstanding both of what dialectical argument is and what the goal of the *Topics* is. In making my limited case, I will return to the *fons et origo*, Owen’s article, and in particular to the proof texts on which it rests.

1 ‘This in Itself Is Sufficient Proof’

The fundamental supporting texts for Owen’s view are *Nicomachean Ethics* VII.1, 1145b6–7, and *Physics* IV.4, 210b32–211a7, which by his account both contain ringing declarations of a dialectical method for establishing principles:

‘For if the difficulties are resolved and the *endoxa* are left standing’, as Aristotle says in both the *Physics* and the *Ethics*, ‘this in itself is a sufficient proof.’ (244)

The clear implication of Owen’s quoted paraphrase is that the *Physics* and the *Ethics* advocate a common method and that the method in question consists entirely of ‘resolving the difficulties and preserving the *endoxa*.’ I do not think that either passage actually supports that interpretation. If we look carefully at them in their contexts, we will find that the two are making distinct claims, each more modest than what Owen imputes to them.

Let me begin with the *Physics* passage. Aristotle says:

We must try to conduct our search so that the essence will be given in such a way as to solve the puzzles, and what appears to be true of place will be true of it, and moreover the cause of resistance (*duskolia*)³ and puzzles about it will be evident. For this is how anything might be most beautifully shown (*houtô gar an kallista deiknuoito hekaston*).⁴ (211a7–11)

³ Δυσκολάνειν has a technical sense, roughly ‘impede the progress of the argument by improper refusals to concede premises’. It is a fault of answerers, not questioners; in my translation, I render it as ‘be cantankerous.’ Cf. Menander’s *Duskolos* (‘The Crotchety Old Man’ or ‘The Curmudgeon’); for an example of what Aristotle means, I suggest Thrasymachus in Rep. I.

⁴ δεῖ δὲ περιᾶσθαι τὴν σκέψιν οὕτω ποιεῖσθαι ὅπως τὸ τί ἐστὶν ἀποδοθήσεται, ὥστε τὰ τε ἀπορούμενα λύεσθαι, καὶ τὰ δοκοῦντα ὑπάρχειν τῷ τόπῳ ὑπάρχοντα ἔσται, καὶ ἔτι τὸ τῆς δυσκολίας αἴτιον καὶ τῶν περὶ αὐτὸν ἀπορημάτων ἔσται φανερόν· οὕτω γὰρ ἂν κάλλιστα δεικνύοιτο ἕκαστον.

Owen presumably is offering us paraphrase, not translation, but still there is a poor fit between his account and what this passage says. The former leads us to believe that Aristotle is stating minimum sufficient conditions for establishing something: ‘this in itself is sufficient proof.’ However, Aristotle says that he is giving conditions for the ‘finest’ or ‘most beautiful’ way to prove anything. These are counsels of perfection, not minimal conditions of adequacy; they go far beyond mere sufficiency to tell us what the best of all possible outcomes is. Moreover, he does not tell us that this is how we must conduct our search if it is to issue in proof: he says that this is how we ought to *try* to conduct it. It is consistent with this demand that an adequate proof may fail to achieve some of these desiderata. He does not say that this is how we *may* prove, or how we *must* prove, but rather that this is how we should *try* to conduct an inquiry: if indeed we can not only solve the puzzles and leave standing what is thought to be true, but also explain what causes the difficulties in the first place and why people have problems with them, then we will have the finest proof imaginable. Nothing that Aristotle says implies that these are *necessary* conditions for an inquiry, or even that they are attainable in every case. Since elsewhere (for instance *Metaphysics A, NE X*) he clearly thinks that sometimes our pre-philosophical opinions cannot be retained after philosophical inquiry, we ought to suppose that the outcome envisaged here will only be possible in some most happy sets of circumstances.

Aristotle also includes a third requirement: we should try to make evident ‘the cause of the resistance and puzzles about it.’ A passage from the *Eudemian Ethics* elaborates this same requirement more fully. Since it has often been seen as providing an epistemological reason for attaching weight to the opinions of ‘the many and the wise,’ I will quote it in full:

We must try, by argument, to reach a convincing conclusion (*zêtein tēn pistin*) on all these questions, using, as testimony and by way of example, what appears to be the case. For it would be best if everyone should turn out to agree with (*phainesthai sunomologountas*) what we are going to say; if not that, that they should all agree in a way and *will* agree after a change of mind (*hoper metabibazomenoi poiēsousin*); for each man has something of his own to contribute to the finding of the truth (*echei gar hekastos oikeion ti pros tēn alētheian*); and it is from such (starting-points) that we must demonstrate: beginning with things that are correctly said, but not clearly, as we proceed we shall come to express them clearly, with what is more perspicuous at each stage superseding what is customarily expressed in a confused fashion.⁵ (1216b26–35)

I have cited Woods’s translation⁶ here, though I shall quarrel with it in a moment. Now, there is a clear resemblance between this passage and *Physics* 211a7–11 on several points. Again, Aristotle says that we should *try* to achieve a certain result, not that we must achieve it. Next, he indicates different degrees of success at which we may aim: best of all if everyone ‘turns out’ to agree with our conclusions, second best if they agree ‘in a way.’ However, he now adds an explanation why we should aim at this: everyone has ‘something of his own in relation to the truth’ (*oikeion ti pros tēn alētheian*), and it is from this that demonstrations must start. Thus, as it seems, Aristotle holds that *everyone* has a certain built-in grasp of a little of the truth, and we should therefore treat the opinions of the many, as well as those of the wise, with

⁵πειρατέον δὲ περὶ πάντων τούτων ζητεῖν τὴν πίστιν διὰ τῶν λόγων, μαρτυρίοις καὶ παραδείγμασι χρώμενον τοῖς φαινόμενοις. κράτιστον μὲν γὰρ πάντας ἀνθρώπους φαίνεσθαι συνομολογοῦντας τοῖς ῥηθησομένοις, εἰ δὲ μή, τρόπον γέ τινα πάντας, ὅπερ μεταβιβάζομενοι ποιήσουσιν· ἔχει γὰρ ἕκαστος οἰκεῖόν τι πρὸς τὴν ἀλήθειαν, ἐξ ὧν ἀναγκαῖον δεικνύναι πως περὶ αὐτῶν· ἐκ γὰρ τῶν ἀληθῶς μὲν λεγομένων οὐ σαφῶς δέ, προϊούσιν ἔσται καὶ τὸ σαφῶς, μεταλαμβάνουσιν ἀεὶ τὰ γνωριμώτερα τῶν εἰωθότων λέγεσθαι συγχεχυμένως.

⁶*Aristotle’s Eudemian Ethics Books I, II, and VIII*, tr. with commentary by Michael Woods (Clarendon Aristotle Series, 1982).

respect, in need of correction and clarification rather than refutation and rejection. Aristotle is not simply advocating a dialectical method in philosophy but giving us a reason for doing so.

However, appearances cannot always be trusted. There are clues in the language of the passage that he has something quite different in mind. One such clue is the word *metabibazomenoi*: ‘after a change of mind,’ in Woods’s version. This is not a very common word. Aristotle uses it only here and in two places in the *Topics*, each of which sheds important light on our present passage. First, in *Topics* VIII, he is discussing the use of false as well as true premises in arguing dialectically. For Aristotle, one thing which distinguishes dialectical arguments from ‘contentious’ or ‘sophistical’ ones in that they must be valid. However, their premises may sometimes be only apparently true. Indeed, in some cases they must be false: if the task at hand is to argue for a false conclusion, then false premises must be used (otherwise the argument would be invalid and therefore not dialectical). Aristotle goes on to note that it can also be dialectically appropriate to use false premises in establishing a truth or refuting a falsehood:

Sometimes, even if a falsehood has been supposed, it should be refuted by means of falsehoods. For nothing prevents things which are not so seeming more so to some individual than what is true, so that if the argument arises from what seems so to that person, he will be more effectively persuaded or benefited. And whoever changes minds (*metabibazonta*) well must change them dialectically, not contentiously (just as the geometer must do so geometrically), no matter whether the conclusion drawn is false or true.⁷ (161a30–36)

The point is that dialectical arguments are always directed at someone and rely on that person’s opinions. If my goal is to persuade you, it will do me no good to use true premises which you do not believe; I would be better off, in fact, using false ones you did believe, so long as they led to the result I wanted. To ‘change minds’ is to lead people to have different beliefs, and that can only be accomplished rationally by beginning with beliefs they actually do have.

Aristotle says much the same thing about ‘changing minds’ and dialectical argument in his remaining use of *metabibazein*, near the beginning of the *Topics*:

[Our dialectical method is useful] in connection with encounters, because if we have reckoned up the opinions of the many, we will speak to them not from foreign opinions but from their own, changing their minds about anything they do not seem to us to have said well.⁸ (101a30–34)

I take ‘encounters’ here to mean simply any occasion for argument with the public. A compilation of the opinions of others, as we shall see below, is one of the components of the dialectical method it is the purpose of the *Topics* to present. Again, Aristotle’s point is that we can only change people’s minds argumentatively from opinions they actually accept.

These passages should lead us to see the *EE* passage in a different light. Getting everyone to agree with our view after a ‘change of mind’ means leading each person, *from premises he accepts*, to accept our view.

⁷ἐνίοτε δὲ καὶ ψεύδους τεθέντος ἀναιρετέον διὰ ψευδῶν· οὐδὲν γὰρ καλύει τιὶ δοκεῖν τὰ μὴ ὄντα μᾶλλον τῶν ἀληθῶν, ὥστ’ ἐκ τῶν ἐκείνῳ δοκούντων τοῦ λόγου γινομένου μᾶλλον ἔσται πεπεισμένος ἢ ὠφελημένος. δεῖ δὲ τὸν καλῶς μεταβιβάζοντα διαλεκτικῶς καὶ μὴ ἐριστικῶς μεταβιβάζειν, καθάπερ τὸν γεωμέτρην γεωμετρικῶς, ἂν τε ψεῦδος ἂν τ’ ἀληθὲς ἢ τὸ συμπεραυνόμενον

⁸πρὸς δὲ τὰς ἐντεῦξεις, διότι τὰς τῶν πολλῶν κατηριθμημένοι δόξας οὐκ ἐκ τῶν ἀλλοτρῶν ἀλλ’ ἐκ τῶν οἰκείων δογμάτων ὁμιλήσομεν πρὸς αὐτούς, μεταβιβάζοντες ὅ τι ἂν μὴ καλῶς φαίνωνται λέγειν ἡμῖν.

This is intrinsic to the persuasive function of argument. In each of our individual collections of opinions there is bound to be something true—‘something of our own’, *oikeion ti*, with some relation to the truth—and this is the starting-point from which others can persuade us to believe the truth. (Woods’s translation obscures this by paraphrasing *oikeion ti pros tēn alētheian* as ‘something of his own to contribute to the finding of the truth’: Aristotle says nothing about finding or contributing to a search for the truth.) In short, then, what Aristotle is talking about in the *EE* passage—and in the *Physics* as well—is not discovering the truth but persuading others to believe it.

EN VII.1 comes much closer to presenting a general methodology for establishing first principles. Irwin⁹ translates it as follows:

As in the other cases we must set out (*tithentas*) the appearances, and first of all go through the puzzles. In this way we must prove the common beliefs about these ways of being affected—ideally, all the common beliefs, but if not all, then most of them, and the most important. For if the objections (*ta duscherê*) are solved, and the common beliefs are left, it will be an adequate proof.¹⁰ (1145b3–8)

In contrast to the *Physics* passage, Aristotle is clearly talking about what is sufficient as proof here. Even so, we do not find anything quite so strong as Owen’s ‘this in itself is sufficient proof’. In fact, it is difficult to be certain that Aristotle is stating anything like a *general* condition of adequacy for all proofs. If instead he is pointing to something specific about the case at hand, then his intent may be quite the opposite: he may be saying ‘if we can accomplish this much, it will at any rate be enough.’

The discussion above of the *Physics* and *Eudemian Ethics* passages gives this possibility more substance. To begin with, note where this passage occurs. It is not at the beginning of a treatise but rather prefaces a section devoted to an unusual topic: the possibility of weakness of will. One unusual element is that the conclusion Aristotle will ultimately defend in this case includes a rejection of a commonly held belief: like Socrates, Aristotle holds that strictly speaking no one can possibly act incontinently. It is striking that this passage, which has come to be a sort of *locus classicus* for finding a dialectical methodology in Aristotle, is the prelude to the *rejection* of a very widely held belief. However, if instead Aristotle is concerned with ‘changing minds,’ then its occurrence here is especially apt. It is *prima facie* implausible that there is no such thing as weakness of will; if we are ever to persuade others of this, we must begin from their own views. However, if we can eliminate the difficulties (*duscherê*) that stand in the way of their accepting it, then we will have shown them adequately (*dedeigmenon an eiê hikanôs*) that it is so.

I do not want to claim that these considerations absolutely rule out Owen’s interpretation of *EN* 1145b3–8. In isolation, the passage does strongly appear to be advocating a general method of inquiry. However, as we have seen, elsewhere Aristotle uses similar language when his real concern is with persuasion rather than proof. I conclude, therefore, that there is no necessity for Owen’s interpretation, and good reasons to reject it.

None of this denies that Aristotle regularly makes use of surveys of the puzzles inherent in the views of his predecessors and of people in general. Indeed, he uses these surveys as a guide to the development of his own position: the puzzles set questions to be answered, and good answers are those which account for

⁹Aristotle, *Nicomachean Ethics*, tr. Terence Irwin (Hackett, 1985).

¹⁰δεῖ δ’ ὥσπερ ἐπὶ τῶν ἄλλων, τιθέντας τὰ φαινόμενα καὶ πρῶτον διαπορήσαντας οὕτω δεικνύναι μάλιστα μὲν πάντα τὰ ἔνδοξα περὶ ταῦτα τὰ πάθη, εἰ δὲ μή, τὰ πλεῖστα καὶ κυριώτατα· ἐὰν γὰρ λύηται τε τὰ δυσχερῆ καὶ καταλείπεται τὰ ἔνδοξα, δεδειγμένον ἂν εἶη ἱκανῶς.

all the puzzles. What is wanted, however, is some evidence that this type of resolution of puzzles constitutes a *proof*.

2 Dialectical Argument and the Art of Dialectic

Underlying these attempts to find a dialectical method of proof in Aristotle is a conception of what dialectic is; and here, in my opinion, is where the real trouble lies. Interpreters have generally accepted an account of dialectic which places all its emphasis on the curious compilation of opinions called *endoxa*—the views of ‘the many or the wise,’ to give it its briefest of several disjunctive formulations. Precisely why Aristotle should single out this collection of opinions for attention is as vexing a question as how he thinks the principles of sciences are established. Following Owen, many interpreters have tried to link the two, not only finding in dialectic a source for the principles but also finding in this function of dialectic a partial explanation of the attention Aristotle pays to the *endoxa*. Irwin has developed a particularly rich interpretation along these lines. Since the picture of dialectic it includes has been influential, I will turn my attention to it.

Irwin finds a definition of dialectic in the first sentence of the *Topics*:

Dialectic is ‘a method from which we will be able to syllogize from common beliefs (*endoxa*) about every topic proposed to us, and will say nothing conflicting when we give an account ourselves.’ (36)

But in 100a18–20, Aristotle does not say that he is giving us a definition of dialectic at all. Instead, the words Irwin quotes are prefaced by ‘The goal of our treatise is to *find* a method ...’ Is Aristotle then claiming that in the *Topics* he means to discover dialectic? The answer, as I have argued elsewhere, is that there is a difference between dialectical *argument* and a dialectical *method* or *art*. Dialectical argument existed long before Aristotle; he himself credits Zeno of Elea with its discovery. What he offers in the *Topics* is an *art* of dialectic, to stand in the same relationship to dialectical argument as does the art of rhetoric to orations.

Failure to recognize this distinction is, I think, the major cause of misunderstanding Aristotle’s remarks about *endoxa*. In the *Topics*, he defines a dialectical deduction (*sullogismos*) as one with premises which are *endoxa*, as opposed to the ‘true and primary’ premises characteristic of demonstrations. If we concentrate only on this point, we may wonder exactly what this class of *endoxa* is. However, in other places Aristotle notes another equally important difference between dialectical arguments and demonstrations: the premises of dialectical arguments are *questions* (*An. Pr.* 24a25, *Top.* 104a8). What differentiates dialectical arguments from demonstrations is that there are two parties to a dialectical argument, one of whom presents the argument to the other as a series of questions held out for acceptance or rejection.¹¹ In demonstration, one chooses as premises the true and primary propositions which underlie all further truths about the subject matter at hand; no audience is necessary, and it is the task of the learner not to question but to accept. However, in a dialectical argument, the questioner can only develop an argument on the basis of an answerer’s responses. Consequently, the questioner must take account of the opinions of that answerer and whether the premises needed are acceptable (*endoxos*) to the answerer.

In the *Topics*, it is Aristotle’s purpose to develop a method that can be used in any such dialectical context. He pays particular attention, especially in Book VIII, to a stylized form of debate that apparently was practiced in the Academy (he calls this ‘gymnastic’), but he does not lose sight of the wider applicability

¹¹This is exactly what the term *πρότασις*, ‘something held out,’ would suggest.

of his method to any context in which arguments must be developed that depend on the opinions (or at least responses) of others. This, for instance, is the reason why he tells us in the *Rhetoric* that the rhetorical art is a kind of hybrid of the dialectical art (*dialektikê*) and ethics: orations are directed at individuals, and we must understand the opinions they have in order to persuade them.

Now, Aristotle makes it clear that a dialectical argument, as he understands it, must be a valid argument (*sullogismos*), that is, its conclusion must actually be entailed by its premises. This sets one task for an art of dialectic: we need a method for discovering premises that imply a given conclusion. But since dialectical arguments must be constructed from the concessions of a respondent, premises will be useful to us only if they are accepted by our interlocutor. This sets a second task for the dialectical art: we need a method for determining, or at least predicting, which premises our respondent will accept. The first task can be solved if we have something like a theory of validity, or at least some general rules relating conclusions to premises. The second task would be solved if we had a systematic classification of premises according to the type of person who will find them acceptable. This, in my opinion, is exactly what Aristotle means by the *endoxa*. The dialectician is to collect views of types of person—the views of everyone, of the many, of the wise, of various celebrated wise men—and use them to gauge the acceptability of premises to a particular opponent.

The clearest statement of this project comes, not from the *Topics*, but from the *Rhetoric*:

For since what is persuasive is persuasive to someone (and sometimes is directly persuasive and convincing through itself, sometimes because of appearing to be proved through such things), but no art investigates the particular (e.g., medicine does not investigate what is healthful for Socrates or Callias, but rather what is so for this type or these types of person—for this is artful, but the individual is infinite (*apeiron*) and not knowable (*epistêton*)), then neither will rhetoric study what is individually acceptable (*to kath' hekaston endoxon*), e.g., to Socrates or to Hippias, but rather what is so (*sc. endoxon*) to such-and-such people (*tois toioisdi*), just like dialectic.¹² (1356b28–35).

This is a familiar Aristotelian thesis: art and science are of the universal, not the individual. It is only accidentally that medicine studies what is healthful for Socrates. Likewise, dialectic, if it is to be an art which studies what is apparent, must study what is apparent to *types* of person, not to this or that individual except incidentally. Against this background, consider the statement often quoted as giving a definition of *endoxa*:

The *endoxa* are what seems so to everyone, or to most people, or to the wise (and of them, to all, or to most, or to the most famous and best accepted).¹³ (100b21–23)

The great majority of interpreters, regarding this as defining a single class of *endoxa*, then are much exercised to understand what that class might be and why Aristotle assigns it such importance. But compare the definition of ‘dialectical premise’ Aristotle gives a little further on in *Top.* I.10:

¹²ἐπει γὰρ τὸ πιθανὸν τινὶ πιθανόν ἐστι, καὶ τὸ μὲν εὐθύς ὑπάρχει δι’ αὐτὸ πιθανὸν καὶ πιστὸν τὸ δὲ τῷ δείκνυσθαι δοκεῖν διὰ τοιούτων, οὐδεμία δὲ τέχνη σκοπεῖ τὸ καθ’ ἕκαστον, οἷον ἡ ἰατρικὴ τί Σωκράτει τὸ ὑγιεινόν ἐστίν ἢ Καλλία, ἀλλὰ τί τῷ τοιούτῳ ἢ τοῖς τοιοῖσδε (τοῦτο γὰρ ἔντεχνον, τὸ δὲ καθ’ ἕκαστον ἄπειρον καὶ οὐκ ἐπιστητόν), οὐδὲ ἡ ῥητορικὴ τὸ καθ’ ἕκαστον ἔνδοξον θεωρήσει, οἷον Σωκράτει ἢ Ἰππία, ἀλλὰ τὸ τοιοῖσδι, καθάπερ καὶ ἡ διαλεκτικὴ.

¹³ἔστι δὲ πρότασις διαλεκτικὴ ἐρώτησις ἔνδοξος ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς, καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις.

A dialectical premise is a question that is acceptable (*endoxos*) to everyone, or to most people, or to the wise (and to all of them, or most of them, or to the most famous)¹⁴ (104a8–10)

Here, Aristotle qualifies the term *endoxos* with almost the very same words used in 100b21–23. If that earlier passage is a definition of *endoxos*, then this one is, in Aristotle’s terms, an example of *dis tauto legein*. It seems much more likely that the first passage is not a definition but a clarifying enumeration. That is, Aristotle says: the premises of a dialectical argument must be acceptable; by ‘acceptable’ I mean what seems so to everyone, or what seems so to most people, or what seems so to the wise ... We find some confirmation of this in the continuation of the passage:

... so long as it is not paradoxical: for someone will concede¹⁵ (*theiê*) what seems so to the wise, if it is not contrary to the opinions of the many.¹⁶ (104a10–12)

In other words, Aristotle gives as a reason for including the opinions of the wise among *endoxa* the fact that people will usually accept these (with an appropriate citation of authority) if they are not ‘paradoxical’.

Once we realize that dialectical argument and the dialectical art are distinct, the mystery about *endoxa* completely disappears. Aristotle’s entire purpose is to spell out an art for arguing successfully with other people on the basis of their opinions. Part of what that art must include is a study of the opinions of various types of person. The *endoxa* of the dialectical art are simply lists of opinions, categorized in this way.

3 The Starting-Points of Dialectic: ‘Not Everyone’s Opinions Count Equally’

This interpretation is at variance with the understanding Irwin and others have of the *endoxa*. Supposing that Aristotle is trying (for unclear reasons) to work out a specialized kind of argumentative method, relying on a special class of opinions, Irwin seeks an account of just what those opinions are. He concludes that in fact, Aristotle wants to restrict the *endoxa* to the opinions of ‘fairly reflective people after some reflexion’ (38). In defense of this, he adduces two passages. The first is from *On Sophistical Refutations*: the common beliefs of dialectic must be apparent,

but apparent not to just anyone, but to people of a certain sort (*tois toioisde*); for it is an indefinitely long task to examine the things that make something apparent to just anyone.¹⁷ (170b6–8)

The phrase ‘people of a certain sort’ strongly suggests that the point here is to restrict the relevant opinions to the opinions of a certain class of people. However, Aristotle’s own explanation of this limitation already undercuts Irwin’s interpretation. If his purpose were to say that dialectical arguments rest on the common opinions of a specific class of persons, we would expect him to say something like ‘for there is no point bothering with the opinions of certain types of people.’ What he actually says, however, is that the task

¹⁴ἐνδοξα δὲ τὰ δοκοῦντα πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς, καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις καὶ ἐνδόξοις.

¹⁵The use of *τιθέσθαι* to mean ‘concede as a premise’ is ubiquitous in the *Topics*.

¹⁶μὴ παράδοξος· θελή γὰρ ἂν τις τὸ δοκοῦν τοῖς σοφοῖς, ἐὰν μὴ ἐναντίον ταῖς τῶν πολλῶν δόξαις ᾖ.

¹⁷φαινομένους δὲ οὐχ ὁτφοῦν ἀλλὰ τοῖς τοιοῖσδε· ἀόριστα γὰρ ἔστω ἐάν τις σκοπῆ παρ’ ὅποσα φαίνονται τοῖς τυχοῦσιν.

of determining ‘the things that make something apparent to just anyone’ is too indeterminate to pursue—‘an indefinitely long task,’ in Irwin’s rendering. And as we have just seen, almost exactly the same phrase (*tois toioisdi*) is found in *Rhetoric* 1356b35, where it clearly is intended to indicate types of person as opposed to individuals.

To find an explicit declaration that ‘not everyone’s opinions count equally,’ Irwin turns instead to *Eudemian Ethics* 1214b28–1215a2, where Aristotle says that we should not waste our time examining the opinions of children, the ill, and the mad about happiness, nor indeed should we give any special weight to the opinions of ‘the many,’ since ‘they speak haphazardly about practically everything, and especially about happiness.’

Now, this is already a remarkable passage from which to seek support for a view of dialectical argument as resting on, and giving initial weight to, the opinions of ‘the many or the wise,’ since it amounts to a global dismissal of the opinions of the many concerning ‘practically anything.’ Furthermore, its entire weight, with respect to Irwin’s thesis, is negative, showing only that Aristotle thought it ‘a waste of time’ (*periergon*) to examine what most people think. If the passage is to provide evidence that Aristotle thinks there is a certain class of persons whose opinions *do* count, we should expect it to say who they are. Instead, Aristotle says:

But, as each inquiry has its own problems, so, evidently, does that concerning the best and highest life. It is *these* opinions, then, that it is right¹⁸ (*kalôs echei*) for us to investigate (*exetazein*); for the refutation of those who dispute a certain position is a demonstration of the opposing view.¹⁹ (1215a3-7, Woods’s translation)

Aristotle has said earlier that *argument* about ethical matters is not what is wanted in the case of the immature, the unsound, and the immoral: what they need instead is experience, therapy, or punishment, as appropriate. His point here is quite precise. Argument serves to change the opinions of others by taking their own opinions as its starting point and showing them that these opinions entail other views; if those further views are repugnant to them, they are thereby motivated to change their opinions. Those whose opinions are subject to rational modification in this light are candidates for argumentative persuasion, and to that end it is useful to study their opinions and the arguments that can be constructed from them. However, children, the insane, and the wicked lack the opinions from which rational persuasion might begin; it is pointless to consider how to refute their views, since what causes people of these classes to have their opinions is not argument but some form of pathology. Aristotle takes part of this to be obvious: we cannot make a child an adult by argument, nor can we heal the sick (or convert the wicked, for that matter). The rhetorical strategy of the passage is a comparison of these cases with ‘the many’: we cannot change their views by argument because they do not hold their views for reasons in the first place but only ‘speak haphazardly’ (*eikêi legousi*) about pretty much everything. Therefore, there is no more point in trying to argue with them than with children or the insane, and we may forgo discussion of their views.²⁰

¹⁸Though I follow Woods here, I think his translation fails to capture an important element of this passage. The word he translated ‘investigate’ is ἐξετάζειν, which can carry the semi-technical sense ‘subject to a Socratic examination.’ It is not common in Aristotle, and when it does occur it almost always is in a context implying refutation. ‘These are the opinions it is in order for us to refute’ would be better: the point is that it is a waste of time to refute people who are incapable of reasoning.

¹⁹ἐπει δ’ εἰσὶν ἀπορίαι περὶ ἐκάστην πραγματείαν οἰκεῖται, δῆλον ὅτι καὶ περὶ βίου τοῦ κρατίστου καὶ ζωῆς τῆς ἀρίστης εἰσὶν. ταύτας οὖν καλῶς ἔχει τὰς δόξας ἐξετάζειν· οἱ γὰρ τῶν ἀμφοισθητόντων ἔλεγχοι τῶν ἐναντιουμένων αὐτοῖς λόγων ἀποδείξεις εἰσὶν.

²⁰The remark that ‘the refutation of those who dispute a certain position is a demonstration of the opposing view’ in no way supports the notion that there is a special kind of dialectical method for establishing first principles. Aristotle says many times that

In summary, the *EE* passage does indeed say that only the views of certain people count, but that passage is not making anything approaching a general claim about either philosophical or dialectical argument. Aristotle is giving a narrowly-focused reason for ignoring the views of the mass of humanity about what life is best: they do not have reasons for their opinions, so we need not worry about refuting them. Nothing about the context licenses the elevation of this into a general methodological principle. There is no warrant for using it to explicate *SE* 170b6–8.

Moreover, if we look carefully at the context of the *SE* passage, it becomes clear that Irwin's translation fails to capture an important implication of the term 'indefinite'. Aristotle's purpose in the entire passage is to explain which refutations his treatise can legitimately study and which it cannot. He begins by stating a distinction, familiar from other works (including the *Rhetoric* as well as the *Topics*), between arguments that fall under the purview of dialectic and arguments proper to one of the sciences. Refutations are arguments (*sullogismoi*); therefore, if we know what kinds of things (*par' hoposa*) arguments arise from—i.e. what kinds of premises—then we will thereby know what refutations arise from. But arguments are classified according to their premises: some are 'in accordance with a particular art', i.e. rest on premises peculiar to that art, whereas others are general. It is only the latter which fall under dialectic. As a result, says Aristotle, to undertake a completely general study of how *all* refutations come about would require having a science of everything, which is not the task of any single science:

For the sciences are likely infinite in number (*apeiroi*), and consequently so are demonstrations. But these are refutations, and true ones: for whenever something can be demonstrated, it is also possible to refute one who accepts the denial of this truth. For instance, if someone accepts that the diameter is commensurate, someone could refute him with a demonstration that it is incommensurate. Thus, we will have to be scientists about everything.²¹

If every refutation corresponded to a demonstration, and if every demonstration were proper to some science, then there could be no such thing as the study of refutations, except in a Pickwickian sense: studying refutations in general would require scientific omniscience. However, Aristotle holds that there are some refutations that depend only on certain 'common' premises which are not peculiar to any given. He sees these as being the special province of dialectic and its cousin, rhetoric.

Aristotle continues:

Clearly, then, it is not the *topoi* of all refutations that are to be grasped, only of those that arise from dialectic: for these are common to every art and faculty. Moreover, the study of a refutation in accordance with a specific science is for the person who possesses that science, both as to whether it appears to be one but is not and, if it is one, why it is. But a refutation from common (premises), which fall under no science, is for the dialectical to study. For if we have what (*topoi*) the accepted deductions (*endoxoi sullogismoi*) about something are from,

a refutation of a proposition is simply a deduction (*sullogismos*) which has as its conclusion the denial of that proposition. It is a simple matter of definition that a refutation of *p* is a demonstration of 'the opposite view,' i.e. the negation of *p*: to refute is to prove false.

²¹ἄπειροι γὰρ ἴσως αἱ ἐπιστήμαι, ὥστε δῆλον ὅτι καὶ αἱ ἀποδείξεις. ἔλεγχοι δ' εἰσὶ καὶ ἀληθεῖς· ὅσα γὰρ ἔστιν ἀποδείξαι, ἔστι καὶ ἐλέγξαι τὸν θεμενον τὴν ἀντίφασιν τοῦ ἀληθοῦς· οἷον εἰ σύμμετρον τὴν διάμετρον ἔθηκεν, ἐλέγξειεν ἂν τις τῇ ἀποδείξει ὅτι ἀσύμμετρος. ὥστε πάντων δεήσει ἐπιστήμονας εἶναι.

then we also have what ⟨*topoi*⟩ the refutations are from: for a refutation is a deduction of the contradictory.²²

The point Aristotle makes here is crucial to his understanding of dialectical argument. In the logical works and the *Rhetoric*, (1358a2–35) he differentiates the arguments, premises, and refutations proper to the individual sciences from the ‘common’ ones applicable to all sciences. The latter, precisely because they are common, cannot serve as the basis of any kind of scientific proof: each science is autonomous with respect to demonstrations about its subject matter, and there is no single overarching science embracing them all. Here, Aristotle draws from this the corollary that, since a refutation is just a kind of deduction, the theory of refutations that concern any subject falls under the science of that subject, not a general science of refutations.

Having made all these distinctions, Aristotle then reaches the conclusion he wants: the general study of refutations applicable to all subject matters is part of the dialectician’s art. In the course of stating this conclusion, he makes in passing the remark Irwin takes to be restricting the starting points of dialectic:

Thus, we possess the kinds of ⟨premises⟩ which such refutations are from. And if we have that, then we also have their solutions: for the objections to these are solutions. And we also have what apparent refutations are from (but apparent not to just anyone, but to people of a certain sort: for they would be indefinite if someone were to inquire from how many ⟨kinds⟩ they appear ⟨to refute⟩ to just anyone). Thus, it is evident that it is for the dialectician to be able to grasp from what sorts of premises either a real or an apparent refutation arises through the common ⟨*topoi* ...²³

It should now be obvious that this phrase actually has a completely different purpose from the one Irwin ascribes to it. Aristotle is not talking about apparent *propositions* but about apparent *deductions*, since his overall goal is to argue that there is a class of refutations (real and apparent) which fall under the scope of dialectic rather than any special science. At the very least, it is a distortion of emphasis to wrest this qualification out of its context and see in it a defining characteristic of dialectical argument itself.

It appears, then, that neither of these passages will bear the interpretive weight Irwin requires of it. The *SE* passage simply does not mean what he takes it to, and the *EE* passage is not about dialectic. Neither provides any evidence that the starting points of dialectical arguments are ‘the opinions of fairly reflective people after some reflexion’

4 Dialectic and the Route to the Principles

Let me now turn to what is perhaps the most crucial text linking dialectic with the indemonstrable first premises of scientific demonstrations. In *Topics* I.2, Aristotle gives three venues in which dialectic will

²²δηλον οὖν ὅτι οὐ πάντων τῶν ἐλέγχων ἀλλὰ τῶν παρὰ τὴν διαλεκτικὴν ληπτέον τοὺς τόπους· οὗτοι γὰρ κοινοὶ πρὸς ἅπασαν τέχνην καὶ δύναμιν. καὶ τὸν μὲν καθ’ ἐκάστην ἐπιστήμην ἔλεγχον τοῦ ἐπιστήμονος ἐστὶ θεωρεῖν, εἴ τε μὴ ὧν φαίνεται, εἴ τ’ ἔστι, διὰ τί ἔστι· τὸν δ’ ἐκ τῶν κοινῶν καὶ ὑπὸ μηδεμίαν τέχνην τῶν διαλεκτικῶν. εἰ γὰρ ἔχομεν ἐξ ὧν οἱ ἔνδοξοι συλλογισμοὶ περὶ ὅτιοῦν, ἔχομεν ἐξ ὧν οἱ ἔλεγχοι· ὁ γὰρ ἔλεγχός ἐστιν ἀντιφάσεως συλλογισμός.

²³ἔχομεν ἄρα παρ’ ὅποσα πάντες εἰσὶν οἱ τοιοῦτοι. εἰ δὲ τοῦτ’ ἔχομεν, καὶ τὰς λύσεις ἔχομεν· αἱ γὰρ τούτων ἐνστάσεις λύσεις εἰσὶν. ἔχομεν δέ, παρ’ ὅποσα γίνονται, καὶ τοὺς φαινομένους, φαινομένους δὲ οὐχ ὄψομεν ἀλλὰ τοῖς τοιοῖσδε· ἀόριστα γὰρ ἐστὶν ἕαν τις σκοπῇ παρ’ ὅποσα φαίνονται τοῖς τυχοῦσιν. ὥστε φανερόν ὅτι τοῦ διαλεκτικοῦ ἐστὶ τὸ δύνασθαι λαβεῖν παρ’ ὅσα γίνεται διὰ τῶν κοινῶν ἢ ὧν ἔλεγχος ἢ φαινομένος ἔλεγχος.

be useful; ‘gymnastic’ exercises, ‘encounters,’ and ‘the philosophical sciences.’ I have alluded to the first of these briefly above and discussed his remarks about the second. The third appears to be of much more moment. Here is how Irwin translates it (36):

It is useful for the philosophical sciences, because if we fully examine the puzzles on each side (*diaporêsai*), we will more easily see what is true or false. And it is also useful for (finding) the first principles of each science. For we cannot say anything about them from the proper first principles of the science in question, since the first principles are prior to everything else. Hence it is necessary to discuss them through the common beliefs on each subject. And this is proper to dialectic alone, or to it more than to anything else; for since it examines, it has a road towards the first principles of all disciplines.²⁴

Owen takes this to be an explicit declaration that dialectic ‘establishes’ the first principles of the sciences (244). Irwin, more circumspectly, repeats Aristotle’s phrase that dialectic ‘has a road’ to the first principles. In either case, it appears that something much more is being imputed to dialectic than could possibly be accomplished by the art as I have described it.

However, context once again turns out to be important. Is Aristotle talking about dialectical argument itself, or is he talking about the dialectical art? The opening of the section (101a25–26) leaves no doubt that he means the latter: he refers expressly to the *pragmateia*, i.e., either to the treatise he is writing or to its contents. These are uses, then of the dialectical art. Since that art, in turn, includes a study of logical consequence, it is evident at once how it will be useful in connection with ‘examining the puzzles’ concerning any issue: skill in deducing the consequences of a position is a natural concomitant of skill in deducing conclusions from an opponent’s opinions. In any event, Aristotle does not say that this will provide us with a *proof* of anything but only says that it will help us to see what is true or false. It is consistent with this claim that other means are also required for discovering the principles, and it is consistent with the business of the *Topics* that Aristotle should refrain from discussing them here.

Aristotle proceeds to give a second use of dialectic in connection with scientific principles, one which looks at first much more promising—especially in Irwin’s translation, which glosses Aristotle’s simple ‘in connection with’ (*pros*) with ‘finding’ (though as he notes this is not in Aristotle). We seem to find here an allusion to the doctrine of the *Posterior Analytics* that no demonstrative science can demonstrate its own principles. So construed, this passage promises to be of great value, since it would be speaking to the same point as the enigmatic final chapter of that work. However, Aristotle simply does not say here that dialectic *establishes* the principles: he says that since a science cannot ‘say anything about’ its own principles, we must ‘discuss’ them (*dielthein*: Aristotle often uses the word of his preliminary discussions of the views on a subject) by means of *endoxa*. But there is a considerable distance between ‘discussing’ first principles and ‘establishing’ them.

If that distance is to be bridged, the weight must fall on the last sentence of the section, which Irwin and others take to say that dialectic provides us with a road whereby we reach the first principles. Now, in what sense might we be said to arrive at the first principles? Aristotle’s own view on this is clear. The

²⁴ ἔτι πρὸς δὲ τὰς κατὰ φιλοσοφίαν ἐπιστήμας, ὅτι δυνάμενοι πρὸς ἀμφοτέρα διαπορῆσαι ῥᾶον ἐν ἐκάστοις κατοψόμεθα τᾶληθές τε καὶ τὸ ψεῦδος. ἔτι δὲ πρὸς τὰ πρῶτα τῶν περὶ ἐκάστην ἐπιστήμην. ἐκ μὲν γὰρ τῶν οἰκείων τῶν κατὰ τὴν προτεθεισάν ἐπιστήμην ἀρχῶν ἀδύνατον εἰπεῖν τι περὶ αὐτῶν, ἐπειδὴ πρῶται αἱ ἀρχαὶ ἀπάντων εἰσὶ, διὰ δὲ τῶν περὶ ἕκαστα ἐνδόξων ἀνάγκη περὶ αὐτῶν διελθεῖν. τοῦτο δ’ ἴδιον ἢ μάλιστα οἰκεῖον τῆς διαλεκτικῆς ἐστίν· ἐξεταστικὴ γὰρ οὔσα πρὸς τὰς ἀπασῶν τῶν μεθόδων ἀρχὰς ὁδὸν ἔχει.

first principles of the sciences are truths which have a certain objective priority to the conclusions that can be demonstrated from them. This priority does not depend on our own epistemic reactions in any way: it is not only possible, but usually true, that we all find these first principles unconvincing or even absurd before we have acquired scientific understanding. On Aristotle's view, it is by transforming ourselves, so that the objective first principles seem to us to be primary, that we come to have scientific understanding. There are, consequently, two components to reaching the first principles: (1) finding out what they are, and (2) coming to see them as the principles.

There is considerable evidence in the *Analytics* that Aristotle thought (1) could be accomplished in a way that sounds quite strange to us. He thought that he had discovered a theory of inference (the syllogistic) which covered *all* valid arguments whatsoever, and thus all demonstrations. He also thought—and understandably so, given the properties of his theory of inference—that there are some true propositions with the unusual property that they cannot be deduced from *any* other true propositions, though they may serve as premises from which to derive others. Indeed, he appears to have held the even stronger claim that if we collect together all the truths about any subject, we will find that there are certain truths among them which cannot be deduced from any combination of the others but from which all the others can be deduced. These propositions must be the principles for the simple reason that they cannot be anything else: they cannot be demonstrated. On the other hand, if they are included among the principles, then we need no other principles, for all others follow from them. The upshot is that Aristotle believed there was a way to specify the principles without appealing to epistemic status.²⁵

According to the *Analytics*, then, dialectic is not the means of accomplishing (1). What of (2)? Here, I think, we do discover an important role, but it is not the one Owen supposes it to be. The property of dialectic which Aristotle appeals to here is that it 'examines' (*exetastikê gar ousa*). The word used here for 'examine' is closely connected with refutation, in particular refuting someone else's views by showing that they lead to contradictions (Socrates used it of his customary style of questioning people about their opinions). A process of refutation is not a very likely candidate for establishing the first principles.

What it might do, however, is bring about a considerable change in our own epistemic situation. The process of exploring the contradictions implicit in our naïve opinions eliminates the air of certainty that attaches to them and puts us in that unpleasant state of 'wonder' which, according to Aristotle, is the beginning of philosophy. A continual process of exploring what follows from what could plausibly be essential to the kind of epistemic conversion required if we are to become scientific. Aristotle tells us in *Met. Z* that scientific education resembles moral education: we strive in each case to change our untutored reactions, making what is in itself good (or familiar) come to seem good (or familiar) to us. In ethics, the agent of this transformation is habit, born of repeated action. Repeated examinations of opinions and their consequences, and of the principles and their consequences, could be the agent of a similar epistemic transformation.

It might be objected that *Met. Γ* offers precisely to 'demonstrate by refutation' (ἀποδείξαι ἐλεγκτικῶς) the principle of non-contradiction, the 'firmest' of all principles: since that procedure, however we interpret it, clearly involves a dialogue between two interlocutors, we might think that this is an actual example of dialectical argument establishing what demonstration cannot. An adequate response, I believe, is Alan Code's argument²⁶ that Aristotle's goal in *Met. Γ* is neither proving the principle of non-contradiction itself

²⁵See my "What Use Is Aristotle's *Organon*?", *Proceedings of the Boston Area Colloquium in Ancient Philosophy* 9 (1993): 261–285.

²⁶"Aristotle's Investigation of a Basic Logical Principle: Which Science Investigates the Principle of Non-Contradiction?", *Canadian Journal of Philosophy* 16 [1986]: 341–357).

nor providing arguments to persuade anyone of its truth, but rather proving things *about* the principle. In fact, this fits exactly with what Aristotle says about dialectical argument in *Topics* I.2: it is because it is ‘impossible say anything about’ the principles (ἀδύνατον εἰπεῖν τι περὶ αὐτῶν) on the basis of the various sciences that we must turn to dialectic in order to ‘discuss’ them (περὶ αὐτῶν διελεῖν).

5 Conclusions

Most of what I have had to offer in this paper is critical. My main goal has been to show that arguments for a probative role for dialectic in connection with establishing first principles rest on misreadings, sometimes serious ones, of the text. The more valuable project, which I have barely touched in here, is understanding just what positive roles dialectical argument might have for Aristotle in the scientific enterprise. However, that must wait for another occasion.²⁷

²⁷A version of this paper was read at the 1996 APA Central Division meeting in Chicago on April 27, 1996. I am grateful to Alan Code, my commentator on that occasion, for helpful suggestions.