

1a2: The strategy of progressive definition and the argument of A1-2

We want to understand what Aristotle says in describing wisdom in A1-2, and then what strategy he follows in the rest of the Metaphysics for achieving the wisdom so described: and we will try to interpret his subsequent explicit statements about wisdom as part of this strategy. In the first place, though, we should face the question of why he goes through this procedure at all: instead of beginning with a vague initial description of wisdom, and adding more and more predicates in the course of the argument, why not just say in the first line of the treatise what the science will be about, explain why it is worth knowing, and proceed to construct the positive knowledge? Instead, much of the energy of the Metaphysics goes into giving further specifications of the concept of wisdom, which is only imperfectly specified by what Aristotle says in the introductory chapters. A1-2 give a complicated argument, beginning from a number of premisses about wisdom, and concluding chiefly that it is knowledge "about the first causes and the ἀρχαί" (A1 981b28-9). The end of A2 then says that "it has been said what is the nature of the desired science, and what is the aim that the inquiry and the whole discipline must hit" (983a21-3); nonetheless, at least the first four aporiai of B raise further questions about what this science will be. As we have seen, Γ1 answers two of these questions by saying that the causes that wisdom knows are causes of being as such and of its per se attributes such as unity and plurality. But this is still not the final definition of wisdom, since in E1 (along with repeating what he had said in Γ1) Aristotle also says that, if there is a separately existing unchanging substance beyond physical things, wisdom will be a science of such separate unchanging things, and so distinguished from physics and mathematics. This is adding a further predicate to what he had said about wisdom in Γ1, since "science of separate unchanging things" is at least not obviously equivalent to "science of being" or "science of the causes of being." (Indeed, it is not equivalent at all, since Aristotle does not think that all causal chains lead up from being to a separately existing unchanging cause: in particular, material causal chains and formal causal chains--and Aristotle calls especially the formal cause τὸ αἴτιον τοῦ εἶναι--never do so.) And we will see reason to think that even in E1 the process of defining wisdom is not complete, that A1-2 and Γ1 and E1 are only signposts in a process of progressive definition that continues through most of the Metaphysics.

To see why Aristotle does not define wisdom once and for all in A1, it helps to consider what form the definition of a science would take. Ἐπιστήμη is a relative term, and Aristotle insists that the species of a relative must be defined by saying what they are relative to: he rejects the definitions of βούλησις and ἐπιστήμη as ὄρεξις ἄλυπος and ὑπόληψις ἀμετάπειστος, and insists instead on ὄρεξις ἀγαθοῦ and ὑπόληψις ἐπιστητοῦ (where this could be filled out with an account of the ἐπιστητόν) (Topics VI,8 146a36-b12, cp. VI,9 147a23-8). So a particular science, such as wisdom, could only be defined as "the science of X" for an appropriate X. But this general point about defining species of relatives has (according to Aristotle) a quite special implication for the case of defining sciences, namely, that we cannot give a scientifically acceptable definition of a given science unless we already possess that science, or at least its deductive starting-points. Aristotle makes this point in discussing Socrates' search for definitions of the virtues: this is a natural place for the issue of defining sciences to come up, since Aristotle thinks that Socrates assumed that the virtues were sciences, and indeed Aristotle thinks that this assumption was the motivation for Socrates' search for definitions of the virtues.

Socrates the elder thought that the aim was to know virtue, and he used to inquire what justice is, and what courage is, and each part of [virtue]. And it was reasonable for him to do this. For he thought that all the virtues were sciences, so that it would happen simultaneously to know justice and to be just: for when we have learned geometry and housebuilding, simultaneously we are housebuilders and geometers; so for this reason he used to inquire what virtue is, rather than how or from what it arises. And this is what happens in the theoretical sciences: for astronomy or physics [ἡ περὶ φύσεως ἐπιστήμη] or geometry are nothing other than knowing and contemplating the things which are the subjects of those sciences, though nothing prevents them from being useful to us per accidens for many necessities [of life]. (Eudemian Ethics I,5 1216b2-16)

Aristotle's conclusion is that Socrates' procedure would have been quite correct, if justice and courage were in fact theoretical sciences: if this were so, then by asking "what is justice?" I might eventually find a definition, which would necessarily have the form "justice is the science of X." But for a formula to be acceptable as a definition, that is, for it to be a satisfactory answer to a τί ἐστὶ question, it must define the thing sought in terms of things we already know: so, if I have reached a satisfactory definition of justice as "the science of X," I must already have come to know what X is, so I will have the knowledge of X, so I will be just. (It seems reasonable to object that, while knowledge of the existence and nature of X is the deductive starting-point of the science of X, it need not exhaust that science: to turn one of Aristotle's examples against him, surely I can have a scientific definition of geometry, and of the basic objects of geometry, without knowing every particular geometrical theorem. But Aristotle's reasoning is as I have described it. Perhaps he assumes that, if Socrates were right that justice is a science, it would be an indivisible knowledge of some simple object such as the Form of the just or the good; or perhaps he merely assumes that reaching the knowledge of the ἀρχή would be the hard part, and that it would be reasonable to concentrate on that in trying to acquire justice.)¹ Aristotle thinks it is still reasonable to inquire τί ἐστὶ of virtue in general, or of particular virtues such as justice, as long as we recognize that this is not enough to make us virtuous: but in the case of the virtue that genuinely is a theoretical science, namely σοφία, the Socratic inquiry τί ἐστὶ is both necessary and (if it can be carried out successfully) sufficient for acquiring the virtue. And this is what he is doing in the Metaphysics.

The obvious difficulty is how to start inquiring "what is X," when we do not yet know what X is: this is the problem of the Meno. (The problem arises even if the teacher's profession of ignorance is not sincere, and is only a pedagogical device: even so, the student starts by not knowing what X is, and he must somehow be led, not only to assent to the definition the teacher will suggest, but also to know that it is true and to understand what X is.) If we are to reach a definition of X by reasoning, some proposition about X must be included in our starting-points, and if we cannot know anything about X before we know what X is, then we will have to start from true opinion about X instead. This is what Plato proposes in the Meno: we all have

¹one could also suggest that Aristotle thinks of the inquiry "what is this virtue, this science" as seeking a more robust account of the object than merely a definition: or, in more traditional terms, as seeking a real rather than as nominal definition. as Rachel Barney points out to me, it sounds more plausible to say that no one can give an account of astronomy without being an astronomer than to say that no one can define astronomy without being an astronomer. one can also make the point in terms of the Aristotelian thesis that the knowledge of opposites, and in particular the knowledge of correlatives, is the same: since "the knowledge of X" and "X" are correlatives, I can know the knowledge of X only if I know X. some point of this kind is being alluded to already around Charmides 167b

somewhere within us true opinions not only about mathematics but also about the virtues, which can be elicited by questioning; then, Plato hopes, these opinions can be "tied down" by reasoning in such a way as to become knowledge. In terms that both Plato and Aristotle use, we have to begin with things that are "true but not clear"--statements about X that people will spontaneously assent to, but are not clearly known or understood, or do not make clear what X is--and arrive at something that is "both true and clear," a definition that gives clear knowledge of what X is.² In the terminology of the Topics, the propositions we begin with will have to include (or add up to) an ἴδιον³ of X, a predicate or conjunction of predicates that are satisfied only by X but do not give a definition of X, because they do not make clear what X is: the hope is that such an ἴδιον of X will show us in what general direction to look for a definition of X, will enable us to reject false definitions of X, and will help us to recognize the true definition of X once it is proposed.

Aristotle makes this methodology clearest, once again, in talking about defining virtue in the Eudemian Ethics. Aristotle thinks that it is important to define moral virtue, not because knowing what such virtue is is an end in itself, but because knowing what it is is a step toward knowing how to acquire it; and in trying to define moral virtue he is forced to confront the Meno problem. As Aristotle says, "we must inquire as people inquire in all other matters, by having something [initial to say]:⁴ we must always try, going through things that are said truly but not clearly, to grasp [what can be said] both truly and clearly" (EE II,1 1220a15-18). In the present case, we begin with the true-but-not-clear statement that the virtue or excellence of any kind of thing is "the best disposition" of the thing (first cited 1218b37ff), and therefore that moral virtue is the best disposition of (the appropriate part of) the soul.⁵ Aristotle stresses that this is not a definition of moral virtue: "we are now in the same condition as if [we had said] about health that it is the best disposition of the body, or that Coriscus is the darkest man in the market: for we do not know what [or who] either of these [sc. health and Coriscus] is, but being in this condition is useful toward knowing what each of them is" (1220a18-22).⁶ "The darkest man in the market" and "the best disposition of the body" are ἴδια of Coriscus and health: these ἴδια are "not clear" because in knowing these we do not yet know τί ἐστὶ, who Coriscus is or what health is, but only ποιὸν ἐστὶ, what Coriscus and health are like. (Indeed, before we know who Coriscus is, we cannot know that he is the darkest man in the market; but we may have the true opinion that he is the darkest man in the market, e.g. by accepting this on the authority of someone who knows Coriscus.) Nonetheless, these ἴδια are useful toward knowing who Coriscus is and what health is, because they show us where to look for the object (in the market, in the genus "disposition" or more specifically "disposition of a living body"), and also how to recognize the object when we find it (it's the darkest, or the best, in that range of objects). The knowledge or acquaintance with Coriscus that we will acquire in this way cannot be formulated in words, but in the case of health or virtue, we should be able to find them and recognize them by recognizing

²references in Plato and Aristotle on ἀληθές and σαφές; for Aristotle, besides the EE II,1 text I go on to cite, EE I,6 1216b26-35 is nice

³should I replace with "proprium" throughout? ("property" is too misleading)

⁴for the sense of ἔχοντές τι, compare ἔχει ἕκαστος οἰκεῖόν τι πρὸς τὴν ἀλήθειαν at 1216b30-31

⁵the "best disposition" formula was an Academic commonplace (see pseudo-Plato Definitions 411d1), and Aristotle assumes it will be non-controversial (presumably the historically important part of the formula was the claim that virtues are dispositions rather than activities)

⁶Aristotle is clearly alluding to the Meno: knowing what virtue is and knowing what virtue is like are compared to knowing who Meno or Coriscus is and knowing what he is like. And Aristotle's solution is what was apparently also Plato's solution: although we cannot know the ποιὸν before knowing the τί, and therefore cannot use the knowledge of the ποιὸν as a starting-point for knowing the τί, we can start with a true opinion about the ποιὸν, and then, with this opinion as a guide, we can go look and obtain knowledge of the τί, and thereby also of the ποιὸν.

that a certain formula expresses what they are, and so we will have a definition. So progress toward the final scientific definition will consist in replacing a quasi-definition, which uniquely characterizes the object without clearly saying what it is, with a definition that more clearly expresses τί ἐστὶ; this process could take a number of stages, replacing a less clear with a clearer formula at each stage. A superlative formula such as "the best disposition of the body" or "the darkest man in the market" will be especially imperfect, since it does not characterize the object simply through what it is like intrinsically, but through comparisons to other things, and so cannot be verified of anything without examining all other comparable objects: Aristotle even says that a superlative formula cannot really be an ἴδιον of a thing, since the formula will still apply to something even if the thing does not exist, "for example, if someone gives 'the lightest body' as an ἴδιον for fire: for if fire ceases to exist, some body will still be the lightest" (Topics V,9 139a9-16).⁷ Nonetheless, often we must begin with such an imperfect ἴδιον, and try to replace it first with more intrinsic characterizations of what the thing is like, and then with a clear statement of what the thing itself is.

In the case of σοφία, as in the case of health or of moral virtue, Aristotle begins with a superlative ἴδιον (or a series of such ἴδια), and tries to replace it with a clearer definition; because σοφία, unlike moral virtue, is a theoretical science, the final definition must have the form "σοφία is the knowledge of X," and this definition will make it clear what σοφία is only so far as it makes clear what X is. As we have seen, in converging on this final definition of wisdom we will also be converging on wisdom itself. This, then, is why Metaphysics A1-2 give only a provisional and not a final definition of wisdom: these chapters argue, from initial descriptions of wisdom which the auditors will spontaneously accept, to an ἴδιον of wisdom sufficient to guide further investigation; the rest of the Metaphysics is trying to achieve a wisdom satisfying the ἴδια of A1-2, and one way it tries to do this is by asking, and trying to answer more clearly, what wisdom is. One important result of A1-2 is to establish an ἴδιον of wisdom that has the form "wisdom is the knowledge of X," although this ἴδιον is not a definition, because it does not make clear what X is: namely, it is an ἴδιον of wisdom that it is knowledge of the ἀρχαί, although we do not yet know what the ἀρχαί are. The rest of the Metaphysics pursues the now equivalent questions, what the ἀρχαί are and what wisdom is: the questions about wisdom raised in Metaphysics B, and the partial answers given in Γ1 and E1 (that wisdom will be a knowledge of causes of being and its per se attributes, and that wisdom will be a knowledge of separate eternal immobile things if there are such things) are parts of this inquiry.

The argument of Metaphysics A1-2 begins from the superlative ἴδιον that wisdom is that kind of knowledge which is most valued for its own sake, apart from any practical consequences: as Aristotle puts it at A2 983a5, wisdom is ἡ τιμιωτάτη ἐπιστήμη. This superlative ἴδιον of wisdom, like the superlative ἴδιον of virtue that it is the best disposition of the soul, is the relevantly motivating ἴδιον of the object, the description that explains why we should want to acquire the object and why we should want to learn more precisely what it is. This initial description allows Aristotle to connect the special science he wants to teach, the science of the ἀρχαί, with what his audience will already naturally desire: Aristotle then has the burden of arguing that this science really does satisfy the initial description.

This underlying argumentative structure is somewhat disguised by the rhetorical form especially of A1 as a προοίμιον. As Aristotle notes in Rhetoric III,14, προοίμια especially of epideictic discourses are often not directly on the main subject of the discourse: instead, they first

⁷the authenticity of this passage has been contested by Tobias Reinhardt, Das Buch E der aristotelischen Topik. Untersuchungen zur Echtheitsfrage, pp.172-5. no real harm to if he's right, but look at him and Brunschwig

raise some topic, usually of praise or blame or exhortation, that allows the speaker to appeal to the audience, and then they establish the connection to the main subject. The essential task of a προοίμιον is to make clear (perhaps only at the end) what the aim of the discourse will be;⁸ but in particular situations the προοίμιον will also have the task either of making the audience well-disposed or of making them attentive and teachable: the way to make them attentive is to show that the subject is either intrinsically great or personally important to them.⁹ In the Metaphysics (as in several other treatises) Aristotle decides not to assume that the audience will be attentive from the beginning to the science he wants to teach, and so, instead of simply stating the subject-matter at the outset, he attaches a προοίμιον beginning from general evaluative maxims and concluding to the importance or personal relevance of the science at hand.¹⁰ In the Metaphysics, Aristotle chooses as his starting-point the general maxim that "all men by nature desire to know," and then, in rhetorically "proving" the maxim by the example of sensation and especially sight, he refines it to make the point he needs, namely that we have a way of valuing knowledge that is only for the sake of the act of knowing, independent of any value we attach to the practical consequences of the knowledge.¹¹ Once Aristotle has won this admission, he has an admitted desire on the part of his audience that he can latch his proposed science onto, if he can show that it is indeed ἡ τιμιωτάτη ἐπιστήμη. Again, he does this indirectly. He does not, at first, state and argue explicitly that knowledge περὶ ἀρχῶν is the most intrinsically desirable kind of knowledge. Rather, he modulates¹² from arguing that we do value some knowledge intrinsically to showing the grounds of this kind of valuing: that is, to showing what feature of the knowledge of X leads us to value this knowledge intrinsically, to the degree that we do so value it. Aristotle's clearest argument comes from the comparison of τέχνη and ἐμπειρία: even where the τεχνίτης and the mere ἔμπειρος can produce exactly the same practical results, we still prefer the τεχνίτης to the ἔμπειρος, and the ground can only be the feature where they differ, where this is (says Aristotle) that the τεχνίτης knows the cause, i.e. knows why some fact is true and not merely that it is true, or knows why he should perform some action and not merely that he should perform it. From this and similar accepted examples of what knowledge we praise and desire, Aristotle infers that we value a kind of knowledge intrinsically in so far as it is knowledge of causes. Since he has quietly introduced the adjective σοφός into the discussion, saying that one knower is σοφώτερος than another when the first knower's knowledge is more intrinsically desirable, Aristotle can express this conclusion by saying, at the end of A1, that "σοφία is ἐπιστήμη about some ἀρχαί and causes" (982a2).¹³

⁸we will see that Aristotle faults Plato for failing to do this: see Iα4 and Iβ1, the former with extensive discussion of Aristoxenus on Aristotle on Plato's lecture on the good

⁹or that it involves something marvelous (θαυμαστόν) or pleasant. references, and parallels, eg. pseudo-Aristotle Rhetorica ad Alexandrum c29

¹⁰nice parallel in the προοίμιον to the NE, which doesn't get round to mentioning the actual subject-matter (πολιτική) for 27 lines. this parallel is important, and I will return to it below (both προοίμια depend on themes inherited from Plato about the hierarchy of arts and sciences, the NE προοίμιον depending directly on the Euthydemus). also note the very elaborate προοίμιον of the De Partibus Animalium. the much less elaborate first sentence of the De Anima could also be compared; for a different approach, compare the beginning of the Eudemian Ethics. note also Rhetoric II,21 on the usefulness of universal γνῶμαι.

¹¹Aristotle has helped himself to the example of sight (as something we desire for itself as well as for its consequences) from Republic II 357c1-3

¹²see Rhetoric III,14 for the musical metaphor (προοίμιον is itself a metaphor from music, extended first to poetry and then to prose speeches)

¹³it is likely that Aristotle is here adapting some material from Democritus: cite from Democritus (i) the comparison between experience and art, (ii) μουσική coming last, when necessities of life have been satisfied, (iii) maybe

Actually, though, Aristotle wants, and claims, something more than this. By "σοφία" he means not just "the kind of knowledge that is intrinsically desirable," but "that specific kind of knowledge that is most intrinsically desirable"; since every ἐπιστήμη properly so called is knowledge of some causes or other, Aristotle proceeds to ask at the beginning of A2 "which causes and which ἀρχαί is σοφία the ἐπιστήμη of?" (982a5-6). But in fact he has already said something more specific, namely that "everyone supposes that what is called σοφία is about the first causes and ἀρχαί" (981b28-9, my emphasis).¹⁴ A1 was constructed too rhetorically to be a connected argument for this more precise conclusion; the main aim of A2 is to assemble the different grounds that can be given for intrinsically valuing a kind of knowledge, and to marshal them into a connected argument that the most intrinsically desirable kind of knowledge is the knowledge of the ἀρχαί, that is, of the first causes.¹⁵ In doing this Aristotle draws on the examples of admired kinds of knowledge he had discussed in A1, but also on his own earlier Protrepticus, his exhortation to philosophy or to the desire for wisdom. There are in fact many close verbal echoes of the Protrepticus in A1-2, and sometimes the argument in the Protrepticus (even in the incomplete version we can piece together out of the fragments) is fuller and clearer and helps us to interpret the argument in the Metaphysics. Nonetheless, Aristotle is adapting these materials in the Metaphysics for a significantly different purpose. The Protrepticus was an exoteric discourse addressed to a potential royal patron, an attempt to arouse desire for wisdom; it does not show how to go about satisfying that desire. In the Metaphysics, by contrast, addressed to students who have already studied ethics and physics and wish to acquire the highest kind of knowledge,¹⁶ the introductory praise of wisdom is designed to lead into a more precise account of what this wisdom is, with the aim of helping us actually acquire it. So while the Protrepticus gives many of the same predicates to wisdom as the Metaphysics, it does this in producing as many arguments as possible that wisdom is to be pursued, without having clearly defined what wisdom is; the Metaphysics turns these arguments around, beginning from the assumption that wisdom is (by various criteria) the most intrinsically desirable kind of knowledge, and arguing that it is the knowledge of the ἀρχαί or first causes. I will concentrate here on sorting out the main lines of the argument of Metaphysics A2, noting parallels and divergences with the Protrepticus where these seem helpful.¹⁷

connections between geometry and Egypt, (iv) the general idea that philosophy comes after the development of the arts: the arts have developed largely through practical pressures and chance discoveries, but afterwards we have leisure to reflect on the causes, to understand how and why these practices work, and the value of such knowledge is intrinsic rather than practical. {some of these points may be discussed in the Brancacci and Morel volume}

¹⁴"ἀρχή" has a broader meaning coextensive (but not quite synonymous) with "cause," and a stricter meaning coextensive (but not quite synonymous) with "first cause": Aristotle uses the word in both senses in A1-2. (the beginning of A3, summing up the conclusions of A1-2, says that we must find knowledge τῶν ἐξ ἀρχῶν αἰτίων, and then uses ἡ πρώτη αἰτία as equivalent, 983b24-6.) I will discuss the issues in detail in the next section. I will sometimes speak here of "ἡ περὶ ἀρχῶν ἐπιστήμη" (or English equivalents) to mean specifically the science of first causes, which is what Aristotle wants to identify with wisdom in A1-2 ("ἡ περὶ ἀρχῶν ἐπιστήμη" would be pleonastic in the other sense, since every ἐπιστήμη properly so called is about causes)

¹⁵cp. Ross I,119-20 on what has been done in A1 and what remains to be done in A2. note also Ross' comments at I,115 and I,124 on the aims of these chapters

¹⁶note back-references in A to physics and ethics; conversely, forward references in those works

¹⁷compare Philebus 57a9-59d5, where dialectic is isolated as the most intrinsically desirable and "purest," even if not greatest or most useful, kind of knowledge (I owe this comparison to Michael Pakaluk); Plato here (at 58c7-d1) cites again his earlier assertion (53a2-b7) that a small pure white is whiter than a great mixed white, which Aristotle cites and parodies in criticizing the claims of an idea of the good to be a good-itself at NE I,6 1096b3-5 and EE I,8 1218a12-15; see discussion in "Aristotle and Plato on God as Nous and as the Good," and Iα4 below. both Plato and Aristotle are applying techniques described in Topics III for arguing that X is preferable to Y

The argument of A2 and the criteria for wisdom

The main argument of A2 starts from six criteria for when a knower is wise, or wiser than another, and argues that the knowledge of the ἀρχαί is wisdom in the highest degree by all of these criteria. These criteria divide naturally into two groups: the first four criteria are closely interconnected, and all concern the objects that wisdom knows; the last two are again connected with each other, and concern the teleological status of wisdom as ἡ τιμιωτάτη ἐπιστήμη. I will say something about each of these groups of criteria, to the extent that they add something beyond what was said in A1.

The first four criteria say that for a knower to be wise, he must "know all things, so far as possible, without having knowledge of them individually" (982a8-10); he must know "difficult things, not things it is easy for a man to know," glossed as "things remote from the senses" (a10-12, 23-25); and the wiser person in any given science, or the wiser absolutely, is the one who is "more precise" (a13), and also the one who is "more capable of teaching" (a28-9), or, as Aristotle says equivalently, "more capable of teaching the causes" (a13).¹⁸ The last two expressions are equivalent because the only way to teach a truth (as opposed to persuading someone to believe it on your authority) is to explain why it is true, that is, to show its cause (this is Aristotle's point at a28-30). It is not only that any knowledge, to be teachable, must be knowledge of some causes, but also that I am more capable of teaching a truth to the extent that I know its higher causes: if X is the cause of Y and Y is the cause of Z, the person who knows X can explain Z more fully, and so is more capable of teaching it, than the person who only knows Y. The argument about precision is similar. Aristotle's exposition here is perhaps slightly misleading. He says, "the most precise sciences are those which are most about the first things: for those which [proceed] from fewer [assumptions] are more precise than those which depend on something added, as arithmetic [is more precise] than geometry" (a26-8).¹⁹ Here he assumes that causes are "prior" and simpler than their effects (since otherwise they could not explain them), in something like the way that numbers are prior to geometrical objects: arithmetic is more precise than geometry because it relies on fewer unproved assumptions (it assumes the existence only of units, not of points, straight and curved lines, right and acute and obtuse angles, and it assumes correspondingly fewer attributes), and because its objects do not exhibit so much complexity and variation (every number can be characterized precisely, but not every angle can). But arithmetic is not only about simpler objects than geometry, it is also "causally" prior to geometry: the geometer can count points and lines, and he can use propositions about numbers in geometrical proofs. So it is not just that propositions about a different subject-matter, numbers, are more precise than geometrical propositions, but also that a proposition about geometrical objects that can be proved from arithmetical "causes" is more precise than one that depends on assumptions proper to geometry: by the same token, propositions about the stars that can be proved purely through the mathematical theory of rotating bodies are more precise than those which depend on empirical observation.

These reflections help bring out why the person who is "more precise" and "more capable of teaching" is the person who has knowledge of the higher and more remote causes of things; they also help to explain Aristotle's first two criteria. When Aristotle says that the wise person must know "difficult things, not things it is easy for a man to know" (982a10-12, cp. a23-4) or "things

¹⁸note textual issue

¹⁹note the parallel in the Protrepticus

remote from the senses" (a25), he means, not objects that are physically too far away to see, but remote causes of sensible things: it is difficult to know these things, and the more remote the more difficult, since the way we come to know them is by beginning with effects that are manifest to the senses, and inferring step by step upward to their causes. Sensation, by contrast, "is common to everyone, and for this reason it is easy and is not anything wise" (a11-12). Now Aristotle closely connects this contrast between sensation and knowledge of the remote causes of sensible things with a contrast between particular and universal knowledge. So he says that "we do not think any of the senses is wisdom, although they are the most authoritative knowledge of the particular things": the senses give the best knowledge of particulars, but they are not wisdom because "they do not tell the why of anything, such as why fire is hot, but only that it is hot" (A1 981b10-13). Aristotle also says that "the most universal things" are "pretty much the most difficult things for men to know, since they are most remote from the senses" (A2 982a23-5). This helps to bring out what Aristotle means by universal knowledge. He is not saying that knowledge of higher genera is more difficult than knowledge of their species, or that the person who knows the higher genera is closer to wisdom, so that the ἀρχαί that wisdom knows would be the logically most universal objects. (It is hard to see why the knowledge of higher genera should be either more difficult or more precise, and it certainly will not satisfy the sixth criterion, of "ruling" or "commanding" other sciences.) Rather, universal knowledge, in the sense that Aristotle intends here, is knowledge of universal causes, that is, of causes that explain a wide domain of effects. As Aristotle had said in A1, "ἐμπειρία is knowledge of particulars and τέχνη of universals" (981a15-16), but the ground of the difference between ἐμπειρία and τέχνη is that "the ἐμπειροὶ know that, but do not know why, whereas the others know the why and the cause" (981a28-30). (If the ἔμπειρος is, as Aristotle says, to be as successful in practice as the τεχνίτης, he must be able to generalize from past experience to new cases, but he does not know why these generalizations succeed.) In Aristotle's paradigm case, scientific versus merely empirical medicine, the causes that the τέχνη knows may be logically universals (a disease-type, a type of bodily temperament), but this need not always be so: the sun is the universal cause of the generation of all plants and animals, but it is still logically an individual rather than a universal. What is important is rather that the effect should be predicated of many, that is, that the cause should be a cause, of its characteristic effect, to many different particular things. The most universal knowledge will be knowledge of the most universal causes, that is, causes which explain the most widely extended effects. The person with the most universal knowledge will thus have ἐπιστήμη of the widest range of objects, and so satisfy the first criterion for the σοφός, that he must "ἐπίστασθαι all things, so far as possible, without having ἐπιστήμη of them individually" (A2 982a8-10, picked up a21-3). But these most universal causes will also be "the most remote from the senses" (a23-5), and the highest and most remote causes of particular sensible things: each particular effect has its particular cause, but if the different causal chains can be traced up to a single first cause, this will be the universal cause of all the effects. Thus while the motion of the sun does not immediately explain the birth of this particular animal, it initiates the whole system of causal chains which combine to yield the generation of this and other particular living things, and so it is a first cause to all living things universally. This consideration, that the first causes are the causes of the most widely extended effects, will lead Aristotle naturally to conclude in Γ1 that the ἀρχαί or first causes that wisdom knows will be causes of the most universal effects, namely being and its coextensive attributes such as unity;²⁰

²⁰if, that is, there really are causes of these universal things; this will be a point in dispute

it does not follow that the ἀρχαί themselves are universals.²¹

The remaining two criteria are concerned, not directly with the object or even the manner of the knowledge, but with its teleological status: the fifth criterion says that "the science which is choiceworthy for its own sake and for the sake of knowing is more wisdom than that which is chosen for the sake of its consequences" (982a14-16), and the sixth says that "the more ruling [ἀρχικωτέρα] science is more wisdom than the subservient [ὑπηρετουσα] one: for the wise person must not be commanded, but command [ἐπιτάττειν], and he must not obey another, but the less wise must obey him" (a16-19). Because these descriptions do not by themselves say anything about what wisdom knows, Aristotle has to show how these last two criteria are connected with the description of wisdom, in terms of its object, as knowledge περὶ ἀρχῶν.

Since wisdom is the most desirable kind of knowledge, and since "what is choiceworthy in itself is more choiceworthy than what is choiceworthy on account of something else" (Topics III,1 116a29-30), we know that, as the fifth criterion says, wisdom is "choiceworthy for its own sake and for the sake of knowing" rather than for its consequences. This is to say that it is not a practical science, valued as a guide to virtuous action, or a productive science, valued as a means to the production of external objects, but a theoretical science, valued purely for the sake of θεωρία.²² "all [other kinds of knowledge] are more necessary than this, but none is better than it" (A2 983a10-11), and so it arose only once men had acquired leisure and could pursue knowledge beyond the necessities of life (A1 981b20-25). Now we can discover what kind of knowledge is most choiceworthy in itself, apart from any instrumental value, if we ask what kind of knowledge people would choose in a situation where they had no need to consider the consequences. So Aristotle looks to the extreme cases of leisure, the gods (NE X,8) and the inhabitants of the isles of the blessed (Protrepticus B43), who have no worries about external necessities, and so attach no instrumental value to knowledge qua productive: NE X,8 even argues that the gods do not exercise moral virtue, and devote themselves entirely to θεωρία as the only activity choiceworthy purely in itself.²³ Thus, as Aristotle concludes in Metaphysics A2, wisdom will be θεία ἐπιστήμη, not only by being a knowledge of god (since god is an ἀρχή), but also by being the kind of knowledge that a god would have (983a5-10).

So far, this argument does not tell us what object the gods or the inhabitants of the isles of the blessed would choose to contemplate. But the inhabitants of the isles of the blessed will not contemplate "human things" (NE X,7 1177b31-33 and EE V,7 = NE VI,7 1141a20-b2), since we value the knowledge of these things on account of their connection with our actions, not because of the intrinsic quality of the knowledge. Of course, all knowledge has intrinsic value qua knowledge, but some kinds of knowledge have this value to a higher degree than others; we can discover the kind of knowledge that has to the highest degree the value that knowledge has qua knowledge, if we can isolate the purest kind of knowledge, the knowledge least mixed in with anything else. This is, as Metaphysics A2 puts it, "the knowledge of what is most knowable" (982a31-2), knowledge of an X such that knowledge of X is in the highest degree knowledge, thus knowledge of an X such that X is best at being known, rather than best for the practical concerns of life: "for he who chooses knowing for its own sake will choose most of all what is most of all knowledge, and such is the knowledge of what is most knowable" (982a32-b2). This

²¹indeed, since we will see that all ἀρχαί must be "separate" and that no universal is separate, no ἀρχή will be a universal. note that my interpretation here is diametrically opposite to Owens'. on "universal" in this sense check McArthur in Laval théologique et philosophique for 1962

²²A1 981b13-25 and A2 982b11-28 argue that σοφία is not productive; parallel texts add that it is not practical

²³compare Topics III,3 118a6-15 on the necessary and the ἐκ περιουσίας.

purest kind of knowledge will be unmixed with doubt or imprecision, and it will also be knowledge in itself: that is, its certainty will be intrinsic, and will not depend on our also possessing any additional knowledge. This criterion of wisdom allows Aristotle to argue again that wisdom is knowledge of the ἀρχαί: "the first things and the causes are most knowable, since other things are known from these and on account of these" (982b2-3). Here Aristotle is following, and abridging, his argument in Protrepticus B33-36 that prior things are more knowable, since we cannot (scientifically) know the posterior things unless we also know the prior things; in lecturing, Aristotle would probably have made this argument more fully.²⁴ In the Protrepticus, Aristotle's propagandistic purpose leads him to conclude from this argument that knowledge περὶ ἀρχῶν is easy; but of course this conclusion does not really follow, and he drops it in Metaphysics A2, which explicitly says that wisdom is difficult. The genuine conclusion is not that the ἀρχαί are most knowable to us in our present condition, when "as bats' eyes are to the light of day, so is our soul's reason to the things which are by nature most manifest of all" (Metaphysics α1 993b9-11), but rather that the ἀρχαί are most knowable in themselves, and so most knowable to someone in a cognitively sound condition, who knows logically posterior things through prior things and not the reverse.²⁵ Starting from our present condition, it is hard for us to come to know the ἀρχαί; but once we come to know them, and restore (or first acquire) the sound natural cognitive condition, we will find that the ἀρχαί are knowable in themselves and that the knowledge of them is immediately certain, where other things are known through the ἀρχαί, and certainty about them is only mediate. Furthermore, knowledge of the ἀρχαί is not only causally prior, but also paradigmatic, for other knowledge: knowledge not derived from knowledge of the ἀρχαί is not properly ἐπιστήμη but only sensation or opinion, and even knowledge derived from knowledge of the ἀρχαί is only discursive ἐπιστήμη, an imperfect imitation of the immediacy and certainty of the intuitive νοῦς of the ἀρχαί.²⁶

Wisdom as a ruling science?

Aristotle's sixth criterion for wisdom, that "the more ruling [ἀρχικωτέρα] science is more wisdom than the subservient [ὑπηρετοῦσα] one: for the wise person must not be commanded, but command [ἐπιτάττειν], and he must not obey another, but the less wise must obey him" (A2 982a16-19),²⁷ is very important, but also problematic, for the way he characterizes wisdom. The problem is that Aristotle is now arguing for a conception of wisdom rather different from the

²⁴"Knowable" is γνῶριμον in the Protrepticus passage, ἐπιστητόν in the Metaphysics. In the Protrepticus this argument is interwoven with a logically independent argument that better things are more knowable than worse things.

²⁵besides Metaphysics α1 and Z3, note Topics VI,4 on better known in themselves vs. to a particular person. this is analogous to what is sweet ἀπλῶς vs. what is sweet to a particular sick person. (the distinction is sometimes presented in a way that tones down Aristotle's views on how cognitively sick we are)

²⁶The way I am putting this is deliberately intended to recall the divided line, which is Aristotle's starting-point here. I am also deliberately committing a confusion, which Aristotle will sort out but does not in Metaphysics A1-2 (much less the Protrepticus), between the ἀρχαί which are the logical starting-points of a particular science (but need not be prior κατ' οὐσίαν to the other things the science treats) and the ἀρχαί absolutely, which are prior κατ' οὐσίαν to everything else and are the logical starting-points specifically of wisdom. This will be clearer in what follows. I will also return, in Part III, to the point about discursive and intuitive knowledge, making the distinction more precise: Aristotle's view is that discursive knowledge depends on knowledge-in-potentiality, and therefore that God, who is essentially actual νοῦς, has only intuitive knowledge

²⁷note the common, and perhaps better, translations "authoritative" and "ancillary"; but I want to keep the connections between the terms. I will reserve "authoritative" for κύριος

conception that this criterion was designed to support. Aristotle's discussions of the sixth criterion in A2 are relying on an argument from the Euthydemus, for which his quick remarks here are abbreviations (to be expanded according to the occasion). Socrates' protreptic arguments had urged Cleinias to pursue σοφία, where σοφία is introduced as a name for whatever kind of knowledge will make us happy: Socrates had argued that the only genuine good is some kind of knowledge, since any "good" other than knowledge will be used well or ill, to benefit or to harm the user, to the extent that he possesses or lacks the knowledge of how to use it (Euthydemus 279d6-281e5). So when Socrates comes back to try to determine more precisely what σοφία is (288d5ff), he starts from the premiss that it is a knowledge that uses (i.e. is knowledge of how to use) all other things; and his first step is to eliminate as a candidate for wisdom any art of making X, unless this same knowledge is also a knowledge of how to use X (289b4ff). Where these two arts differ, the art of making is subordinate to the art of using: Plato and Aristotle say, not only that the superior knowledge uses the product X, but also that it uses and rules [ἄρχειν] or commands [ἐπιτάττειν] the inferior knowledge, and that the inferior knowledge serves [ὑπηρετεῖν] the superior. As Plato says in Republic X "there are three arts concerning each thing, the art of using it and the art of making it and the art of imitating it" (601d1-2): of these, it is the user of X, or the art of using X, that knows what is a good X or a bad X, because it knows the use that X is made for-the-sake-of, so that "a flute-player tells a flute-maker what flutes would serve [ὑπηρετεῖν] in flute-playing, and he will command him [ἐπιτάττειν] to make that kind of flute, and the flute-maker will serve him [ὑπηρετεῖν]" (601d10-e2).²⁸ (And even if the flute-player and the flute-maker are the same person, it is still the art of flute-playing that knows the good and therefore commands, and the art of flute-making in the same person that serves.) All this is compressed in the argument of Metaphysics A2 that knowledge περὶ ἀρχῶν best satisfies the sixth criterion for wisdom: "the knowledge that is most ruling [ἀρχικωτάτη], or more ruling than the subservient [ὑπηρετουσα] knowledge, is the one that knows that for-the-sake-of-which each thing is to be done, and this is the good of each thing, and universally, the best in all nature" (982b4-7):²⁹ so the universally ruling science "must be what contemplates [δεῖ ... εἶναι θεωρητικήν] the first ἀρχαί and causes: for the good and for-the-sake-of-which is also one of the causes" (b9-10).

Plato in the Euthydemus uses these considerations to argue that wisdom (the knowledge that makes for happiness) is πολιτική or βασιλική, the art of statesmanship or kingship, since this the art that knows the ends of all the other arts and is therefore able to command them, and to coordinate the functions of all the arts in serving the good of the city.³⁰ Aristotle takes up this argument in the προοίμιον of the Nicomachean Ethics (in praising the discipline he is there introducing, πολιτική) to show that πολιτική is "the most authoritative and master-craftsmanly [κυριωτάτη καὶ μάλιστα ἀρχιτεκτονική]" knowledge (NE I,2 1094a26-7), that it is knowledge of "the good and the best" (1094a22) or of the ultimate end of our actions, and therefore that "the knowledge of it has great power for life" or for happiness (a22-3). Aristotle is in fact using the same Platonic argument to present as the supreme discipline both πολιτική in the προοίμιον of the Nicomachean Ethics, and wisdom in the προοίμιον of the Metaphysics. But these disciplines are not the same thing, and, if the argument applies to both of them, it cannot apply to them in

²⁸so too Cratylus 390b

²⁹grammatical note: I take Aristotle to be compressing into one sentence two parallel arguments, one concluding that the knowledge of the good of X rules the knowledge of making or doing X, and one concluding that the knowledge of the Good absolutely (the best thing in all nature, i.e. the ultimate final cause) rules all other kinds of knowledge

³⁰The Statesman uses these considerations to distinguish the true πολιτικός from the practitioners of various subservient arts; the same contrast is drawn in several places in Aristotle's Politics.

the same way.

We can approach the problem by asking in what sense the disciplines Aristotle is praising are "theoretical." Metaphysics A1-2 insists that wisdom is not productive but purely theoretical, producing nothing beyond contemplation. Πολιτική could be identical with wisdom only if it too were purely theoretical: this seems absurd, not only because Aristotle officially classifies it as πρακτική, but because it is obviously directed toward the government of the city. However, there is a sense in which πολιτική too could be described as theoretical knowledge. Indeed, Plato comes close to describing it as such in the Statesman: while he does not use the word θεωρητική, he divides ἐπιστήμη into "πρακτική" (used as equivalent to ποιητική) and "purely γνωστική" (258d-e5), and he puts πολιτική on the side of "purely γνωστική" (conclusion reached 259c10-d5). This seems paradoxical, but Plato then subdivides purely γνωστική ἐπιστήμη into ἐπιτακτική and purely κριτική (through 260b3-5): the ἀρχιτέκτων or master-craftsman does not himself produce anything, so his knowledge is γνωστική rather than πρακτική (259e8-260a2), but his task is not simply to judge the things he knows (like the arithmetician) but also to command the hand-workers so that they carry out their appropriate productive tasks. So πολιτική is γνωστική but ἐπιτακτική, in the way ἀρχιτεκτονική is (but commanding all the arts, not merely the laborers on a construction project); it is natural for Aristotle to take up this comparison in praising πολιτική as the master-science in the προοίμιον to the Nicomachean Ethics (1094a26-7, cited above). What is more surprising is that he also mentions the ἀρχιτέκτων in Metaphysics A1, this time as an analogue to the theoretical σοφός. "We think that the ἀρχιτέκτονες in each thing are more honorable and wiser, and know in a stronger sense, than the hand-workers, because they know the causes [i.e. the for-the-sake-of-which] of the things they make [or do]" (981a30-b2); it is by generalizing the criterion by which we praise the ἀρχιτέκτων over the hand-workers that we reach the criterion that wisdom must be ἀρχική and ἐπιτακτική,³¹ and that it will be such by knowing the for-the-sake-of-which and the good. It seems, then, that this part of the argument of Metaphysics A1-2 was designed to support a conception of wisdom as theoretical but epitactic, like ἀρχιτεκτονική: indeed, a conception on which wisdom might be identical with πολιτική.

But, although Protrepticus B9 does maintain that wisdom is epitactic, Aristotle's mature opinion is that it is not: in A1-2 he has taken an argument that originally supported an epitactic conception of wisdom, and adapted it to support a rather different conception.³² While he has failed to obliterate such traces as the verb ἐπιτάττειν at 982a18, the new conception does also have a way of making sense of the argument that the highest kind of knowledge must be knowledge of the ultimate for-the-sake-of-which, and even that it must be ἀρχική over the other kinds of knowledge, without being epitactic or in any sense practical. For the Aristotle of the ethical treatises, φρόνησις is the supreme epitactic knowledge, commanding us to choose those things within human power that will produce happiness (and politics, as a special form of φρόνησις, commands us to choose the things that will produce happiness for the city as a whole); EE V,7-8 = NE VI,7-8 sharply distinguish σοφία, the knowledge of "the things that are most honorable by nature" (1141b3) and thus of eternal things independent of human action, from

³¹strictly, Aristotle says here only that the wise person must ἐπιτάττειν (982a1719); but this is equivalent

³²note that even in Metaphysics A1, it is fairly clear that he counts ἀρχιτεκτονική as ποιητική (against Plato-- likewise, NE VI,8 insists that πολιτική is πρακτική even if it doesn't do the work directly), and thus, since he is emphatic that wisdom is not ποιητική but θεωρητική, ἀρχιτεκτονική can be only an imperfect analogue to wisdom, as close to wisdom as you can get in the realm of the productive arts: this is pretty clearly the implication of 981b31-982a1. also note: Ross sees the problem (I'm not sure whether he sees the solution--his note is cryptic); Owens, by contrast, says some quite bizarre things here

these epitactic kinds of knowledge. Aristotle then raises two aporiai (among others) about the σοφία and φρόνησις so described: why is σοφία so valuable, since "it will not consider any of the things out of which happiness [arises], since it is not about any coming-to-be" (EE V,12 = NE VI,12 1143b19-20)? And why, "since [φρόνησις] is worse than σοφία, is it more authoritative [κυριωτέρα] than it? For what produces [as φρόνησις is, i.e. epitactically productive like the ἀρχιτέκτων, not directly productive like the hand-worker] rules [ἄρχει] and commands [ἐπιτάττει] about each thing" (1143b34-5). The answer to the first question is that "σοφία does produce happiness, not as the art of medicine produces health, but as health produces health" (1144a3-5): σοφία is valued, not because it shows us the means to happiness, but because the exercise of σοφία in contemplation is happiness. Φρόνησις, by contrast, stands to happiness as the art of medicine does to health, issuing commands in order to obtain the exercise of σοφία, and thus to obtain happiness. So, although φρόνησις is the supremely epitactic knowledge, it does not rule over σοφία: φρόνησις "is not authoritative [κυρία] over σοφία, not does it have the better lot, any more than the art of medicine does over health: for [φρόνησις] does not use [σοφία] [sc. as ἀρχιτεκτονική uses the manual arts], rather it sees how to bring it about; so it issues commands [ἐπιτάττει] for the sake of it, not to it. This would be like saying that politics rules [ἄρχειν] over the gods, since it issues commands [ἐπιτάττει] about everything in the city [sc. including religious observances]" (EE V,13 = NE VI,13 1145a6-11).³³

This comparison with the gods is not just a colorful expression. Aristotle is making the serious point that the gods rule [ἄρχειν] without commanding [ἐπιτάττειν], and that πολιτική commands for the sake of the gods; he comes back to the comparison in explaining the relation between φρόνησις and σοφία in the last paragraph of the Eudemian Ethics. "For god is a ruler [ἄρχων] not by commanding [ἐπιτακτικῶς], but he is that for the sake of which φρόνησις commands [ἐπιτάττει]--we have distinguished elsewhere two senses of 'for the sake of which' -- for he is not in need of anything. So whatever choice and possession of natural goods (whether goods of the body, or wealth, or friends, or any other goods) will most produce contemplation of god, that is the best, and this is the noblest standard; but whatever [choice of natural goods] obstructs the service and contemplation [θεραπεύειν καὶ θεωρεῖν] of god, either by deficiency or by excess, that is bad" (EE VIII,3 1249b13-19).³⁴ The two senses of "for the sake of which" [τὸ οὗ ἕνεκα] here are "to benefit whom" [τὸ ᾧ] and "to attain which" [τὸ οὗ]:³⁵ Aristotle's point is that something unchangeable, like a god, cannot be benefited and so cannot be the for-the-sake-of-which as τὸ ᾧ. Aristotle thinks it follows that the gods do not give commands (they do not, for instance, demand sacrifices), since this would presuppose that the gods depend for their happiness on our actions. Nonetheless, a god can reasonably be said to ἄρχειν, since we can and should act for the sake of the gods, not in order to benefit them, but in order to "attain" them--to stand in some appropriate relation to them, for instance, to contemplate them. Something else, φρόνησις in regulating the life of an individual or politics in ruling a whole city, must rule by commanding these actions: Aristotle is referring back to what he has said in EE V,13 (cited above), and the point of the comparison is that φρόνησις gives commands in order to bring about

³³thus a difference from Plato on politics: the ruler doesn't have to have wisdom himself in order to command (just φρόνησις), but he still issues commands for the sake of wisdom as the highest good for individuals and for the city

³⁴note the lines immediately before, which, deliberately, verbally recall the EE V passage

³⁵references: Metaphysics A7 1072b1-3; Physics II and its reference to the De Philosophia; De Anima II,4. note some references in the secondary literature, and note the curious split on the meaning of the distinction (aim/benefit or immanent/transcendent), and on which of the two refers to the soul and which to the divine in DA II,4 (Ross right, Gaiser wrong, note who falls on which side, reference to further discussion, and note the serious textual problem in A7). I will have full discussion of all this later, probably in IIIγ1 on A7

"θεωρία of god"--that is, the exercise of σοφία, described in Metaphysics A2 as knowledge of god or of divine things--just as politics gives commands in order to bring about "θεωρία and θεραπεία of god" in the primary sense of those words, namely attending and performing a temple-service.³⁶ Σοφία does not give commands any more than the gods do, but φρόνησις does not rule over σοφία any more than politics rules over the gods. So when Metaphysics A2 says that σοφία is ἀρχική and ἐπιτακτική, it should really have said that it is ἀρχική without being ἐπιτακτική: σοφία contemplates god, not only because god is an ἀρχή (Aristotle's official reason, Metaphysics A2 983a8-9), but also because god is intrinsically most worth contemplating, and this is because god is "the best in all nature" (982b7). So even though wisdom is a non-epitactic ruling science, Aristotle's argument still holds, that it can rule only by knowing "the good and the for-the-sake-of-which" (982b10): the supremely good thing which wisdom contemplates is the highest for-the-sake-of-which of human action, since φρόνησις arranges our life in order to "attain" it by contemplation. And Aristotle will try to show that not only human beings, but also the universe and principally the heavens, direct themselves similarly to "attaining" this supreme good.³⁷

Which causal chains lead up to the ἀρχαί?

At the end of A2, Aristotle says that "it has been said what is the nature of the desired science, and what is the aim that the inquiry and the whole discipline must hit" (983a21-3). But all that has been argued directly is that wisdom is about ἀρχαί and first causes; and, in the course of the argument, some expectations have been generated about these ἀρχαί, notably that they should be most knowable in themselves, that they should be in some way universal causes, and that they should be "the best in all nature." We do not yet know either what the ἀρχαί are in themselves, or how they are causes of other things; in order to learn more precisely what wisdom is, and in order to acquire wisdom, we need to discover this. Since the ἀρχαί are very remote from our sense-experience, we need some discipline to perceive them: presumably we will start by considering some effect that is "more knowable to us," and work up a causal chain to its first cause, "more knowable in itself," to make this also "more knowable to us". But since there are many different effects that we might start from, and since even a single effect may have several different kinds of causes (material, formal, efficient, final), there are many different causal paths we might pursue, and the question of what discipline is wisdom reduces to the question of what causal path will lead up to the desired ἀρχαί. Aristotle clearly rejects the claim that all causal chains lead up to the ἀρχαί as he has described them in A2. Most obviously, material causal chains do not: matter, so far from being most precise and knowable, is "unknowable in itself" (Metaphysics Z10 1036a8-9) and its indeterminacy makes nature imprecise (GA IV 778a8). Matter is also not better than its effects. Also, as we will see, Aristotle argues that the matter of a composite substance is not in the relevant sense ("in οὐσία") prior to the composite substance which is its effect, although it is prior in its position in a particular chain of causes, namely material causes: for this reason, the ultimate material cause will not be properly an ἀρχή. And the example of material causality shows that we cannot simply assume that any causal chain (of material causes, of formal causes, etc.) will lead up to the ἀρχαί which are objects of wisdom. Aristotle does seem to have assumed in the Protrepticus that all causal chains lead up to the divine realm of "truth" (B32-37) which is the object of wisdom. This assumption seems also to

³⁶ credit Bodéüs for pointing this out; perhaps give some quotes, and note Euthyphro reference

³⁷reference ahead to Part III; and note context of ᾧ/οῦ (or τινί/τινός) distinction in Λ7

be reflected in the pseudo-Platonic Definitions, which give as two equivalent definitions of wisdom that it is "knowledge of the things which are eternally; knowledge contemplating the cause of beings" (414b5-6), and in Xenocrates, who says that wisdom is knowledge of "the first causes and the intelligible substance" (Fr. 259 Isnardi-Parente). But in the Metaphysics Aristotle is forced to be critical of this assumption, since here he is actually trying to produce wisdom, and so he must indicate which causal chain we must take to the ἀρχαί. For this reason, Aristotle must investigate the different ways that "cause" is said, and the different objects that might be taken as the effect from which to begin pursuing an upward causal chain; and he must try to determine which kinds of causes, of which effects, lead up to the ἀρχαί.

Aristotle will argue in Metaphysics Γ1-2 that the effects whose causes wisdom knows are the most universal possible effects, namely being and unity; this is in agreement with the formula just cited from the pseudo-Platonic Definitions, that wisdom is "knowledge contemplating the cause of beings". But he is not committed to saying that wisdom is a knowledge of all the causes of being or of unity (and this is why Γ1-2 are consistent with the thesis of E1 that wisdom is--exclusively--a knowledge of eternal non-physical things). Rather, the programmatic assertion of Γ1 is part of a process of progressively narrowing down what wisdom will be. From the Definitions we would not guess that "cause" and "being" are said in more than one way. But from Aristotle's point of view, an attempt to investigate the causes of being without distinguishing the senses of "cause" and of "being" can only lead to confusion. Since "cause" and "being" and "one" are said in many ways, there are many different causal chains that we could pursue in seeking a "first cause of being" (or of unity). Aristotle's claim is not that each of these causal chains will lead us to wisdom, or that they all jointly do, but only that some such causal chain will lead to the ἀρχαί, and that we should explore each chain to see whether it does or not. Metaphysics E1 (besides repeating the thesis of Γ1-2) contributes to the process of progressive definition by asserting that, if there are unchanging substances beyond the physical things, the ἀρχαί must be substances of this kind: this means that we must examine which causal chains lead up to such non-physical substances, since certainly not all do. The following books, EZHΘΙΑ, systematically explore the different kinds of cause of different senses of being and unity, to see whether they lead to the ἀρχαί. Much of the content of these books is critical, and belongs to the discipline of wisdom only in that it examines arguments which, if they were sound, would lead to knowledge of the ἀρχαί and so would belong to wisdom:³⁸ it is only at the end of Λ that we know exactly which causal chains lead up to the ἀρχή, and so have a precise account of what knowledge constitutes wisdom.

In the following section Iα3 I will examine what Aristotle means by "ἀρχή", and so how he determines whether some given cause is an ἀρχή or not (this raises the questions of the sense in which an ἀρχή must be prior to, and separate from, what it is an ἀρχή of, questions to which I will return in Iβ4); in section Iα4 I will examine the sense in which Aristotle assumes that the ἀρχή will be "the best in all nature" or (as he also says) "the good itself," and the sense in which he is committed to assuming that the ἀρχαί will be unchanging and separate from matter. Then, with these assumptions clarified, I will turn to examining Aristotle's argument to determine which causal paths do and which do not lead to the desired ἀρχαί.³⁹

³⁸it is obvious that E2-4, on being-per-accidens and being-as-truth, lead to negative conclusions; I will argue, more controversially, that this is also the case for Z on being-as-οὐσία, although not for Θ on being-as-ἐνέργεια

³⁹add cross-references to the Protrepticus, chiefly from the older version. also take out some of the Greek