“Plato’s Megiston Mathêma as Aristotle’s First Philosophy”

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Introduction

It is commonly thought that Aristotle’s project of first philosophy¹ - also referred to as the knowledge or discipline² of being qua being or theology³ - as presented in the work that is known to us as the Metaphysics is shared with Plato. Both Aristotle and Plato, it is thought, seek to answer the same question, and when Aristotle goes on to criticize Plato’s theory of Forms he does so not on the grounds that Plato has asked the wrong question, but that he has given the wrong answer. Aristotle’s own answer is to be found in all or part of the central books of the Metaphysics,⁴ while Plato’s is spread throughout various passages beginning perhaps with the Phaedo⁵ and continuing through the Parmenides, Sophist, Philebus, and Timaeus.⁶ This shared project is sometimes summed up by asserting that both philosophers seek to answer the question ‘What is being (to on)?’ or ‘What is being most of all?’ and such a shared project can appear to

¹The first fairly explicit reference to ‘first philosophy’ is not until Metaphysics Γ.2 1004a2-9 and it is only mentioned once in that book. It reoccurs explicitly (twice) at Metaphysics E.1 1026a23-32.
²I will often be translating ἕπιστήμη as ‘discipline’ in those contexts in which, at least in Aristotle, it is often translated as ‘science’. I do this in part because ἕπιστήμη is almost never translated as ‘science’ in Plato and yet a concern with the nature of ἕπιστήμη is clearly something that Aristotle and Plato share. Plato’s use of ἕπιστήμη can sometimes be appropriately translated as ‘discipline’ (see ... Gorgias ... Republic 7 ... ...). The translation ‘knowledge’ or ‘understanding’ for both Plato’s and Aristotle’s use in some contexts is clearly preferable, while in other contexts, in addition to the lack of a plural for ‘knowledge’ (and in the relevant sense of ‘understanding’), other features make the best translation available ‘discipline’. See n. XX below.
³The relationship between and among these three - first philosophy, the discipline of being qua being, and theology - is obviously controversial, and to some extent will be one of the themes of this essay. But for now, I simply take them to be referring to the same discipline. Part of Aristotle’s purpose, I think, in Metaphysics A 1-2, Γ 1-3, and E 1 is to establish that they all refer to the same thing.
⁴Of course, the phrase ‘central books of the Metaphysics’ is loaded. For the purposes of this essay I will take the following books to be central: A, B, Γ, E, Z, H, Θ, I, Λ, M, and N. The argument of this essay, however, only depends upon taking A 1-2, Γ 1-3, and E 1 as offering a coherent introduction to the project that the remaining books, whichever they are, attempt to develop. If the thesis of this essay should prove persuasive we will have one less reason to separate Λ from the central books, however; cf. pp. XXX below.
⁵Note concerning no comment to the order of the dialogues and Owen’s more restricted version of the shared-project thesis.
be a rather abstract ontological and theoretical project having very little to do with how one ought to live.

I believe that understanding the project that Aristotle shares with Plato in the *Metaphysics* in this way understates the project’s significance, as well as the depth and significance of Plato’s influence. But, I cannot hope to adequately defend such a view here. Rather, my goal in this essay is preliminary and suggestive. I contend that the project that Plato and Aristotle share is the one that Plato describes in the central books of the *Republic* and which Socrates is made to call the *megiston mathêma*. I support this contention by focusing on the similarities in Plato’s description of the *megiston mathêma* in *Republic* books 6 and 7 and Aristotle’s description of first philosophy in the introductory chapters of the *Metaphysics*, especially, A 1-2, Γ 1-3, and E 1. These similarities indicate that Aristotle has Plato’s *megiston mathêma* in mind as he introduces the project which he pursues in the *Metaphysics*.  

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7See, for example, (Politis 2004:265–266) for a similar sentiment, although he underestimates (or at least does not pursue) the extent of Aristotle’s debt to Plato’s discussion in the *Republic*.

8My initial thoughts involving this question were stimulated by two excellent papers - one by Dirk Baltzly (Baltzly 1999) and the second by Dominic Bailey (Bailey 2006). Both of them, in different ways, correctly see *Metaphysics* Γ 3 as referring back to Plato’s discussion of the unhypothetical first principle in the Line. (I will be following what has become a fairly common practice of referring to Plato’s three images in *Republic* books 6 and 7 as the cave as the Sun, the Line, and the Cave.) While I agree with much of what they have to say about these issues, I think they underestimate the influence of the *Republic* on Aristotle in the *Metaphysics*, at least in these papers. See pp. xxx below. In their respective commentaries on the introductory chapters of the *Metaphysics*, (Ross 1924) and (Kirwin 1971) seldom cite passages from the *Republic* and, of course, even less commonly passages from the *Republic* 6 and 7. (Politis 2004:20–21) correctly notes that Plato and Aristotle are engaged in a shared project of answering the question ‘What is being?’, but he does not pursue the similarities with Plato’s *megiston mathêma* and so risks missing the significance of the shared project. Owen, in a series of papers ((Owen 1986), (Owen 1986),and (Owen 1986)) famously takes Aristotle to be engaged in Plato’s ‘master-science’ following Aristotle’s ‘discovery’ of *pros hen* equivocation and this ‘master-science’ presumably looks back to Plato’s *megiston mathêma*, but Owen’s focus is on Plato’s later development of the master-science in dialogues like the *Parmenides*, *Theaetetus*, and *Sophist*.

9That Plato’s *megiston mathêma* is not merely an abstract or purely theoretical investigation, having little to do with how we should lead our lives is perhaps more obvious. As we will see, both Plato and Aristotle take their projects to provide the foundations of the other disciplines, and so to that extent they pursue their shared project for the sake of those other disciplines. But they also pursue this shared project for its own sake, as the most valuable and exalted project in which a human can engage. (See (Politis 2004:30–31) who cites *Nicomachean Ethics* book X.) For both Plato and Aristotle, humans, qua philosophers, do not pursue the *megiston mathêma* and first philosophy for the sake of providing the foundations of the geometry, physics, biology, astronomy, and the like, although it does provide those foundations. Rather they pursue geometry, physics, biology, astronomy, and the like for the sake of pursuing philosophy. That, at least, is the approach I want to encourage by calling to our attention to the depth of the affinity between the projects of Plato’s *megiston mathêma* and Aristotle’s first philosophy.
In what follows I will begin by looking at Plato’s account of his *megiston mathêma* as he presents it in *Republic* 6 and 7. I will be painting with an extremely broad brush and running rough shod over numerous controversies and details. My goal in this section will be to identify the project of the *megiston mathêma* as opposed to the Platonic development or fulfillment of that project. Very roughly, my goal will be to identify the question as opposed to Plato’s answer. Next, I will turn to a similarly broad-brushed account of Aristotle’s first philosophy in *Metaphysics* A 1-2, Γ 1-3, and E 1. In these six chapters Aristotle introduces his project of first philosophy, whatever it is meant to be. We will see that many of the features of Aristotle’s project of first philosophy can be found in Plato’s description of his *megiston mathêma* and that these shared features suggest a deeper affinity between the projects than merely the shared question, ‘What is being?’.

**Plato’s Account of the Megiston Mathêma**

Plato begins his account of the *megiston mathêma* after *Republic* 502c, when his defense of the possibility of Kallipolis has evidently come to an end (*Republic* 6 502c?-8). After a short transition at the conclusion of which Socrates is made to mention that the philosopher rulers must be tested to determine whether they can withstand the *megista mathêmata* (*Republic* 6 503e1-504a1), Glaucon characteristically presses Socrates to explain what he means by these *megista mathêmata* (*Republic* 6 504a2-3). The explanation that follows covers 30 to 40 Stephanus pages and encompasses some of the most well-known, yet puzzling passages in Plato.

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10 Keeping these two goals distinct in the case of Plato is perhaps more difficult than in the case of Aristotle. For Aristotle, the description of the project is largely confined to the introductory books we will be reviewing below while its development and fulfillment is found in books Z through M (*modulo* n. xx above), although Γ 4-7, for example, might plausibly to thought to be at least part of Aristotle’s fulfillment. In Plato’s case, however, while the fulfillment of the project seems pretty clearly to be the Form of the Good, what is not clear is whether what he tells us about the Form of the Good in *Republic* 6 and 7 is meant to describe the rather structural features of the project that the Form of the Good fulfills or substantive features of the Form of the Good itself, to the extent that it has any; (see (Santas 1980)). However we are to resolve this issue for Plato, we can agree that those features in Plato’s discussion shared by Aristotle in his discussion should not be thought to be substantive features of the Form of the Good.

11 For an account that the structure of this defense is an application of Plato’s method of hypothesis see (Benson 2008).
Socrates begins with an uncharacteristically direct and clear answer to Glaucon’s question, which has without explanation or remark changed from the plural ‘What are the *megista mathêmata*?’ to the singular ‘What is the *megiston mathêma*?’ (6 504e4). He maintains that the *megiston mathêma* is the Form of the Good (ἡ τοῦ ἄγαθοῦ ἱδέα μέγιστον μάθημα; 6 505a2), as Glaucon has often heard before. Following a fairly lengthy elaboration of this answer (6 505a-506d), Glaucon, nevertheless, presses for more details. This leads Plato to unveil the images of the Sun (6 507a-509c), the Line (6 509c1-511e5), and the Cave (7 514a1-518b), followed by a rather extensive description of the nature of the education of the philosopher rulers on whose existence the possibility of Kallipolis depends (7 518b-535a). Socrates concludes this entire discussion as follows:

Then do you think that we've placed dialectic at the top of the other subjects like a coping stone (ὦσπερ θριγκός τοῖς μαθήμασιν ἡ διαλεκτικὴ ἠμῖν ἐπάνω κείσθαι) and that no other subject (μάθημα) can rightly be placed above it, but that our account of the subjects (των μαθημάτων) that a future ruler must learn has come to an end? (Ἀρ’ οὖν δοκεῖ σοι, ἐσθιν ἐγώ, ὦσπερ θριγκός τοῖς μαθήμασιν ἡ διαλεκτικὴ ἠμῖν ἐπάνω κείσθαι, καὶ οὐκέτ’ ἄλλο τοῦτο μάθημα ἀνωτέρω ὀρθῶς ἄν ἐπιτίθεσθαι, ἄλλ’ ἔχειν ἡδή τέλος τὰ τοῦ μαθημάτων;) [7 534d3-535a2; G/R trans.]

Here, then, we have in outline Plato’s discussion of his *megiston mathêma*. Before, however, we can begin to focus on some of its details, we need to notice an apparent ambiguity in Plato’s use of ‘*megiston mathêma*’. At 505a2 Plato identifies the *megiston mathêma* with the Form of the Good, and at 534d3-535a2 he identifies it with dialectic. But the Form of the Good and dialectic hardly look like the same thing. Indeed, they do not even look like the same kind of thing. The Form of the Good looks roughly like the object of knowledge, or the subject matter of a discipline (what one knows when one has acquired the discipline), while dialectic looks like the knowledge or discipline itself. In fact, things are worse, for ‘dialectic’ seems to refer to a number of different things for Plato as well. Sometimes Plato uses ‘dialectic’ to refer to the method of

12This passage might instead be taken as the conclusion of a sub-argument of the overall argument concerning the *megiston mathêma* - a sub-argument that begins around 521c. If so, the argument concerning the *megiston mathêma* should be read as continuing until the end of Book 7. I will have more to say about the transition that takes place around 521c below. Nothing important for the purposes of this essay hangs on precisely where Plato’s discussion of the *megiston mathêma* comes to an end.
inquiry employed by philosophers in their pursuit of the Form of the Good. When he does, dialectic is identical to the method of hypothesis.\textsuperscript{13} Other times he uses it to refer to the discipline philosophers are engaged in. In this case, dialectic is identical to philosophy.\textsuperscript{14} And still other times Plato uses ‘dialectic’ to refer to the cognitive state one achieves when one has acquired the discipline.\textsuperscript{15} When used in this way, dialectic looks like wisdom or sophia.\textsuperscript{16} As a result, given Plato’s identification of his megistion mathêma with both the Form of the Good and with dialectic and given the many faces of dialectic, Plato’s use of ‘megistion mathêma’ can be taken to refer to at least four different things: [1] the subject matter or the cognitive content of the cognitive state the philosopher seeks to acquire (the Form of the Good), [2] the cognitive state the philosopher seeks to acquire (wisdom or sophia), [3] the method the philosopher uses in order to acquire this cognitive state (dialectic or the method of hypothesis), and [4] the discipline the philosopher is engaged in (philosophy or dialectic).

In what follows I will seek to keep these uses of ‘megistion mathêma’ distinct, although I doubt that Plato always does. Nevertheless, recognizing the variety in Plato’s use allows us to put more clearly the project of Plato’s megistion mathêma. It is the project of acquiring sophia,  
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\textsuperscript{13}Perhaps, Republic 6.511b4-5 and Republic 7.533c7-??. For a defense of the claim that the dialectical method is identical to the method of hypothesis, i.e., Plato’s preferred method of philosophical inquiry, see (Benson 2010). See also ...
\textsuperscript{14}Perhaps, Republic 7.531d7-533c7 and 7.534d3-535a2.
\textsuperscript{15}Perhaps, Republic 7.537c?. The ambiguity, if that is what it is, between discipline and cognitive state is a feature of the Greek with which we have met before; see n. XX above. ‘Dialectikê’ is a shorten version of ‘dialectikê epistêmê’ or ‘dialectikê technê’, but the former can either be translated as dialectical knowledge or dialectical science; ‘expertise’ as a translation of ‘technê’ has a similar ambiguity. Consider also Plato’s use of ‘philosophia’ and ‘philosophos’. Sometimes the philosopher is the one who has completed the journey to the Form of the Good having achieved understanding or knowledge or wisdom and so should rule; sometimes the philosopher is the one who seeks, but has not yet achieved, that understanding or wisdom. A similar ambiguity can arise in the case of geometry, astronomy, and the like. What distinguishes one discipline from another is matter of controversy, but it seems to depend in both subject matter and method. The individuation conditions for subject matter and for cognitive state also require consideration. For now, I hope that the general characterization I have offered here will suffice.
\textsuperscript{16}‘Sophia’ and its cognates do not occur much in Plato’s discussion of the megistion mathêma, but in so far as Plato would be inclined to designate a technical term for this cognitive state, it is likely to be ‘sophia’, if for no other reason than that the name ‘philosophia’ indicates that the cognitive state genuine philosophers seek is sophia. Of course, what Plato takes sophia to be - perhaps knowledge (epistêmê or nous) of the Form of the Good (or perhaps even first principles and aitiai) requires interpretation. Moreover, Plato’s general dislike of a technical vocabulary (in particular with respect to his knowledge vocabulary, see Republic 7.533e1-3) and his general tendency to use his epistemic words - epistêmê, phronêsis, nous, noêsis, et al. - interchangeably make relying on Plato’s word choice in order to decide anything look unfruitful.

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and it is the project that the philosopher (or the practitioner of the discipline of philosophy) pursues. The subject matter of the philosopher’s discipline, Plato tells us straightaway, is the Form of the Good, and the method employed by the philosopher in pursuing this project is dialectic (or perhaps the method of hypothesis). Except for the bit about the method of hypothesis, this much is unexceptional. And at this level of description, it is nearly unexceptional that Plato’s project so described shares features with Aristotle’s project described in the opening chapters of the *Metaphysics*. That Aristotle takes his project of first philosophy to lead to wisdom and to be the discipline most appropriately called ‘philosophy’ is almost too obvious to mention, although that Aristotle would take the subject matter of first philosophy to be the Form of the Good and its method dialectic may be as difficult to accept as the first two features were difficult to deny. The difficulty, of course, is that the level of description at this stage of our examination is so general that the significance of the similarities, as well as the differences, cannot be properly judged. What we need is a closer look at the structure of Plato’s project.

As I mentioned, Socrates begins his answer to Glaucon’s question by pointing out that Glaucon has often heard before that the *megiston mathêma* is the Form of the Good. Most of Socrates’ attention in his introductory discussion is devoted to explaining what this subject matter is not. In the course of professing his ignorance of what the subject matter is (αὐτὴν οὐχ ἴκανῶς ἱσμεν; 6 505a5-6 and 6 506b5-e7), Socrates is made to assert that it is not knowledge (φρόνησις; 6 505b8-c5) nor pleasure (ἡδονή; 6 505c6-d10). But he does stress that the road to

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17 See, for example, Aristotle’s criticism of the Form of the Good at *Nicomachean Ethics* .... and of the theory of Forms in general at *Metaphysics* A 9 and *Metaphysics* M and N (more precise citation). Concerning dialectic, see, for example, Aristotle’s comment at *Metaphysics* Γ 2 1004b17-26. Of course, some scholars, for example, (Owen 1986) and (Irwin 1988), see Aristotle in agreement with Plato here as well, at least at some level of description.

18 This passage and what follows has a similar structure to Aristotle’s introduction of *eudaimonia* in *Nicomachean Ethics* 1 4-7. It is as though the Form of the Good is not much more than the name of the subject matter of the discipline of philosophy. While Socrates professes ignorance of substantive features of this subject matter, he appears to be familiar enough with its formal or structural features to reject various substantive answers to the question ‘What is the Form of the Good?’ (cf. *Nicomachean Ethics* 1 5-6), to provide the images of the Sun, the Line, and the Cave, and to offer a fairly detailed description of how the philosopher should pursue acquiring the knowledge of this subject matter. That Socrates would deny that his cognitive state concerning these structural features amounts to knowledge is reiterated at *Republic* 6 506c2-e7.
acquiring knowledge of this subject matter is long and difficult (6 504a4-e3). Plato also has Socrates maintain that without knowledge of the Form of the Good, even if we knew other things, such knowledge would be of no benefit to us (εἶ δὲ μὴ ἵσμεν, ἀνευ δὲ ταύτης εἰ ὁτι μάλιστα τὰλλα ἐπισταῖμεθα, οὐσθ' ὤτι οὐδὲν ἦμῖν ὁφελοῦ; 6 505a6-7; cf. also 6 505e1-3); indeed, if one fails to know it, then one knows nothing fine or good (ἡ πάντα τὰλλα φρονεῖν ἀνευ τοῦ ἀγαθοῦ, καλὸν δὲ καὶ ἀγαθὸν μηδὲν φρονεῖν; 6 505b2-3). Moreover, the Form of the Good is what every soul pursues and does what it does for the sake of (Ο δὴ διώκει μὲν ἄπασα ψυχῇ καὶ τούτου ἐνεκα πάντα πράττει; 6 505d11-e1). Finally, the best people in Kallipolis, presumably the philosophers, must come to know it (περὶ δὴ τὸ τοιοῦτον καὶ τοσοῦ τὸν οὕτω φῶμεν δεῖν ἑσκοτῶσθαι καὶ ἑκείνους τοὺς βελτίστους ἐν τῇ πόλει, οἷς πάντα ἐγχειροῦμεν; 6 505e4-506a2). They will make poor rulers without it (Οἵμαι γοῦν, ἐπον, δικαία τε καὶ καλὰ ἀγνοοῦμενα ὅπη ποτὲ ἀγαθά ἐστιν, οὐ πολλοὶ τινος ἄξιοι φύλακα κεκτήσθαι ἃν ἑαυτῶν τὸν τούτο ἀγνοοῦντα: μαντεύομαι δὲ μηδένα αὐτὰ πρότερον γνώσεσθαι ἴκανος; 6 506a4-6).
considering opinions as opposed to knowledge, Socrates proceeds to relate his famous images. The first is the image of the Sun, in which Plato appears especially focused on explaining the ontological status of the subject matter. In particular, Plato is concerned to explain that the Form of the Good is the *aitia*\(^{20}\) of knowledge and truth. As Socrates is made to put it, the Form of the Good stands to intelligibles (ἐν τῷ νοητῷ τόπῳ πρὸς τε νοῦν καὶ τὰ νοούμενα) just as the sun stands to visibles (ἐν τῷ ὀρατῷ πρὸς τε ὄψιν καὶ τὰ ὀρόμενα; 6 508b12-c2). Just as the sun is the *aitia* of sight and light in the visible realm, so the subject matter of the *megiston mathêma* is the *aitia* of knowledge and truth in the intelligible realm. Indeed, the sun is the *aitia* not only of sight and truth in the visible realm, but also of the coming to be, nourishment, and growth of the visibles themselves (τὴν γένεσιν καὶ αὐξήσι καὶ τροφὴν; 6 509b2-5),\(^{21}\) leading to Socrates’ famous conclusion of the analogy

Therefore, you should also say that not only do the objects of knowledge owe their being known to the good, but their being and *ousia*\(^{22}\) is also due to it, although the good is not essence, but superior to it in rank and power. (Καὶ τοῖς γιγνωσκομένοις τοῖν ν ἐστὶν μή μόνον τὸ γιγνώσκεσθαι φάναι ὑπὸ τοῦ ἄγαθοῦ παρεῖναι, ἄλλα καὶ τὸ ἐκάθιστον) just as the sun is also due to it, although the good is not necessarily due to it, but so is τὸ ἐκάθιστον. Consequently, Grube/Reeve simply translate the entire phrase as ‘being’. In Aristotle, however, *ousia* is variously translated as ‘essence’ or more often ‘substance’ depending on context. I have no idea what Plato here means by *ousia*, as opposed to τὸ ἐκάθιστον, if anything, and so I have no idea how we ought to translate it, but I do want the Greekless reader to be aware of the fact that Plato uses *ousia* here in addition to τὸ ἐκάθιστον and how the former is usually understood in Aristotle. Consequently, I leave it untranslated.

\(^{20}\)For the purposes of this essay I set aside the debate concerning the proper translation of *aitia* for Plato and Aristotle. Consequently, I simply transliterate the Greek. For some good places to start concerning this debate see (Vlastos 1969), (Frede 1987), and (Sedley 1998). See (Politis 2004:26–27) for a brief argument for translating it as ‘explanation’.

\(^{21}\)We might put this in Aristotelian terms as follows. Physics, understood as what it is one comes to know when one acquires the discipline of physics or becomes a physicist, stands to separable and changeable things just as first philosophy, again understood in the same way, stands to separable and unchangeable things. Indeed, at the end of *Metaphysics* E.1, Aristotle suggests that if there were no separable and unchangeable things, physics would be first philosophy. For Plato if there were no realm of intelligibles, but only the realm of visibles, his *megiston mathêma* would be the sun.

\(^{22}\)The Greek here is τὸ ἐκάθιστον. Often *ousia*/*ousia* in Plato is simply translated as ‘being’, but so is τὸ ἐκάθιστον. Consequently, Grube/Reeve simply translate the entire phrase as ‘being’. In Aristotle, however, *ousia* is variously translated as ‘essence’ or more often ‘substance’ depending on context. I have no idea what Plato means by *ousia*, as opposed to τὸ ἐκάθιστον, if anything, and so I have no idea how we ought to translate it, but I do want the Greekless reader to be aware of the fact that Plato uses *ousia* here in addition to τὸ ἐκάθιστον and how the former is usually understood in Aristotle. Consequently, I leave it untranslated.
the *aitia* of the knowledge and truth of knowable things, as well as the *aitia* of their being and *ousia*. As such, it is in some way not *ousia*, but beyond *ousia* in rank and power.\(^{23}\)

In the Line, Plato’s focus becomes less ontological and more epistemic, targeting the method of inquiry by which one comes to know the subject matter of his *megiston mathêma*.\(^{24}\) Plato explains that the method by which one reaches the Form of the Good is the method of hypothesis, which he here identifies with dialectic.\(^{25}\) Plato describes this method by contrasting it with an inferior method which, he says, can only reach *dianoia*. This latter method, often practiced by geometers, arithmeticians, and the like,\(^{26}\) fails to treat its first principles (*archai*), for example, “the odd and the even, the various figures, the three kinds of angles, and other things akin to these” (τὸ τε περιττὸν καὶ τὸ ἄρτιον καὶ τὰ σχῆματα καὶ γονιών τρισδά εἴδη καὶ ἄλλα τούτων ἀδέλφα), as the hypotheses that they are. Rather it treats them as known and clear to all, when they are not. The geometers and the like fail to recognize that these alleged first principles need to be confirmed in part by deriving\(^{27}\) them from a higher hypothesis until one reaches the highest first principle of all, the unhypothetical first principle of everything, the Form of the Good, the subject matter of Plato’s *megiston mathêma*.\(^{28}\) The method by which one acquires the knowledge of this subject matter by contrast does treat the first principles (*archai*) of the

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\(^{23}\)These famous concluding words, viz. οὐκ οὔσιας ὄντος τοῦ ἀγαθοῦ, ἄλλη ἐπὶ ἐπίκεινα τῆς οὐσίας προσεβεία καὶ δυνάμει ἀπερέχοντος, have sparked a longstanding commentary among subsequent Platonists, often leading to some rather mystical and ineffable interpretations. One motivation for reading Aristotle’s understanding of metaphysics and first philosophy as influenced by these passages in Plato is to encourage less mystical and ineffable interpretations. Compare Aristotle’s remark at *Posterior Analytics* B 7 13-14 that τὸ δείναι οὐκ οὔσια οὐδένει: οὐ γάρ γένος τὸ ὄν.

\(^{24}\)For a defense of much of what I say in this paragraph, see (Benson 2010).

\(^{25}\)Plato does not use the word ‘*dialectikê*’ in the Line passage, despite Grube/Reeve’s translation. But he does use the phrases τη τοῦ διαλέγεσθαι δύναμει (6.511b?) and ὅπο τῆς τοῦ διαλέγεσθαι ἐπιστήμης (6.511c3-d5) which indicate a more formal and specialized sense of το διαλέγεσθαι than mere conversation or discussion. Later at 7.532b4, he does use ‘*dialectikê*’, clearly referring back to the Line passage; see ἦ τοῦ διαλέγεσθαι δύναμις at 7.533a8.

\(^{26}\)For argument that Plato is not referring here to all geometers, arithmeticians, and the like, but only those who do not practice their respective disciplines correctly, see (Benson 2011).

\(^{27}\)For an explanation of my use of words like ‘*derive*’ and ‘*entail*’ in discussing Plato’s method of hypothesis see (Benson 2010:204 n 13).

\(^{28}\)(Baltzly 1996) and (Bailey 2006) are skeptical about this identification. Others who are not include (Robinson 1953:159–160), (Bluck 1964:95), (Santas 1980:252–256), (Fine 1990:99, 105), (Mueller 1992:190), (Reeve 2003:42), and (Denyer 2007:306). While I cannot fully defend the identification here, I would simply point out that the Line is explicitly offered as part of Plato’s explication of his *megiston mathêma*, and if the unhypothetical first principle does not correspond to it, it is difficult to determine what else does.
subordinate disciplines as the hypotheses that they are until one has acquired the knowledge of
the Form of the Good which as the highest first principle (archê) cannot be derived from
anything else, which somehow does not employ the inappropriate use of perception, and which
entails the archai of the subordinate disciples.

If something like this reading of the Line is correct,\textsuperscript{29} then, the subject matter of Plato’s
megiston mathêma is not only the aitia of the knowledge, truth, being, and essence or substance
of knowable things, but also their first principle (archê); indeed, it is the unhypothetical first
principle of everything. The discipline, whose subject matter it is, serves as a kind of master or
architectonic discipline under which other subordinate disciplines, like geometry and arithmetic,
fall. The method by which knowledge of the subject matter is acquired is the method of
hypothesis, which Plato associates with dialectic. And, finally, Plato reiterates the
epistemological priority of this subject matter. Knowledge of the Form of the Good is apparently
necessary, not only for knowledge of anything that is of any benefit, or for the knowledge
necessary and perhaps sufficient for ruling the city, but also apparently for the knowledge of
anything else at all.\textsuperscript{30}

Plato’s image of the Cave\textsuperscript{31} reinforces much of what we have already seen, as well as
supplying additional information concerning his megiston mathêma. Plato reaffirms that the
subject matter of the megiston mathêma is the last thing to be known and the path that leads to
the knowledge of it is long and arduous, that it is the aitia of truth, and knowledge, and being,
and that knowledge of it is necessary for “anyone who is to act sensibly in private or public;” (7
517a8-c6). But he also indicates that the knowledge of the subject matter of the megiston
mathêma is sought for its own sake as well as for the sake of ruling, presumably in both private

\textsuperscript{29}See n. xxx above.

\textsuperscript{30}This would, of course, explain Socrates’ general profession of ignorance in light of his professed ignorance of the
Form of the Good.

\textsuperscript{31}The Cave image begins at 7.514a1, but it is not clear where it should be said to officially end. I will arbitrarily take
it to extend through the discussion of the nature of education (7.518b6-521b11) which is closely based on the Cave.
But nothing important hangs on this arbitrary partition. Certainly, all three images continue to be referred to through
the end of Book 7.
and in public. As Plato explains, the philosophers who finally acquire the knowledge of the Form of the Good would prefer to remain contemplating it. They must be forced to return to the cave and rule; 7 519b7-521b11. In addition, the subject matter of the megiston mathêma is explicitly associated with divine things at 7 517d4 and those who know it as being more divine 7 518d9-a7. At 520c Plato has Socrates indicate that the one who has acquired the knowledge of the subject matter of the megiston mathêma will know all of the things that fall under it, saying

And because you've seen the truth about fine, just, and good things, you'll know each image for what it is and also that of which it is the image (γνῶσις ἐκαστα τὰ εἰδώλα ἀττα ἑστὶ καὶ ὃν, διὰ τὸ τάληθῃ ἐωρακέναι καλῶν τε καὶ δικαίων καὶ ἁγαθῶν πέρη). [G/R trans.

Indeed, it this unique ability of philosophers to know what the images are and of what they are images, as a result of their knowledge of the Form of the Good, that makes them uniquely suited to rule Kallipolis.

Finally, let us turn to Plato’s description of the educational curriculum of his future philosopher rulers. It begins as follows

Do you want us to consider now how such people will come to be in our city and how—just as some are said to have gone up from Hades to the gods—we'll lead them up to the light (πῶς τἰς ἀνάξει αὐτοὺς εἰς φῶς)? Of course I do.

This isn't, it seems, a matter of tossing a coin, but of turning a soul from a day that is a kind of night to the true day (ψυχῆς περιαγωγὴ ἐκ νυκτερινῆς τινος ἡμέρας εἰς ἀληθινήν) —the ascent to what is (τοῦ ὄντος οὕσαν ἐπάνωδον), which we say is true philosophy. Indeed.

Then mustn't we try to discover the subjects (τί τῶν μαθημάτων) that have the power to bring this about? Of course.

So what subject (μάθημα) is it, Glaucion, that draws the soul from the realm of becoming to the realm of what is (ὁλκὸν ἀπὸ τοῦ γιγαντιάνου ἐπὶ τὸ ὄν)? (Βούλει ὁν τοῦτ ἡδί σκοπῶμεν, τίνα τρόπον οἱ τοιοῦτοι ἐγεγνησόνται, καὶ πῶς τὶς ἀνάξει αὐτοὺς εἰς φῶς, ὡσπερ ἐξ Ἀιδοῦ λέγονται δὴ τινες εἰς θεοὺς ἀνελθεῖν; Πῶς γὰρ οὐ βουλομαι; ἔρη. Τούτῳ δή, ὦς ἔοικεν, σὺκ ὀστράκου ἄν εἰ περιστροφῇ, ἀλλὰ ψυχῆς περιαγωγῆ ἐκ νυκτερινῆς τινος ἡμέρας εἰς ἀληθινήν, τοῦ ὄντος οὕσαν ἐπάνωδον, ἢν δὴ φιλοσοφοῦν ἀληθῆ φήσομεν εἰναι. Πάνυ μὲν οὖν. Οὐκοῦν δὲ πεπείθθαι τι τῶν μαθημάτων ἔχει τοιαύτην δύναμιν; Πῶς γὰρ οὖ; Τί ἂν οὖν εἴη, ὦ Γλαucus, μάθημα ψυχῆς ὠλκὸν ἀπὸ τοῦ γιγαντιάνου ἐπὶ τὸ ὄν;) [7.521c1-d4; G/R trans.]

32 See also 7 527a6-b2 and 7 540a-c. The issue of the philosophers returning to the cave in order to rule has of course generated an enormous literature; see, for example, ... Fortunately, we do not not need to engage this issue.

33 See also 7 532b-d and 7 540c.
Two features of this passage require comment. First, Plato has Socrates explicitly maintain that the ascent to the light, the ascent to being (τὸ ὤν) and the Form of the Good, i.e., to the knowledge of the subject matter of his megiston mathêma, is truly or genuinely said to be philosophy. But second, and more troubling, one would have thought that the question with which Plato ends this passage had already been answered. What is the mathêma that draws the soul from becoming to being? The megiston mathêma, obviously, i.e. the Form of the Good, which Socrates has been discussing for the last 17 or so pages. Why, then, does Plato have Socrates raise this question again here, and give it an apparently different answer?

The answer I think can only go back to the ambiguity surrounding Plato’s use of megiston mathêma that we discussed earlier. When Socrates asked the question back at 504e4, Plato was thinking about the subject matter of this mathêma, and hence he responded that is was the Form of the Good. It is the subject matter of megiston mathêma that for the most part we have been discussing ever since. Here, however, Plato appears to be thinking about the discipline that studies this subject matter, that turns the soul in the direction of this subject matter, that culminates in the knowledge of this subject matter. So he begins his answer to this new question by rejecting the gymnastic and musical disciplines (Γυµναστική µή καὶ µουσική), whose subject matters are presumably different aspects of bodily health (7 521e?-522b1). He turns to arithmetic on the grounds of its universal applicability (7 522b8-c9) and concludes that it is one of the mathêmata that leads the soul to the knowledge of being and should be practiced by the philosopher (7 526c5-8). Next he recommends geometry, stereometry, astronomy, and harmonics, culminating in the practice of dialectic at the age of 50, once again reminding us of

34 Is this what Aristotle has in mind by ‘first philosophy’?
35 Note also, the move from the plural mathêmata at 7.521c10 to mathêma at 7.521d3. Unlike the earlier move at 6.502a4-e4 which was unexplained, the move here can be explained by what follows. While most disciplines do not turn the soul in the direction of being and the Form of the Good, some do (arithmetic, geometry, stereometry, astronomy, and harmonics), but only dialectic can culminate in the knowledge of being and the Form of the Good, the subject matter of the megiston mathêma of 6.502e.
36 N.B. the virtual interchangeability of being (τὸ ὤν) and the Form of the Good by this point in the discussion. That the Form of the Good has not been left behind, however, is made clear at 526d7-e5, 531c6, 534b8-d2, and 540a4-e9.
the long and arduous road that lies ahead for the philosopher who seeks to acquire the knowledge of the subject matter of the *megiston mathêma*.

In his discussion of dialectic, Plato makes clear that the preceding five disciplines were only propaedeutic to the dialectical discipline because their principles are only hypotheses, about which they cannot give an account, and consequently fail to know (7 533b6-533c6).\(^{37}\) It is only dialectic that can convert these hypotheses into genuinely known starting points of the respective disciplines by proceeding all the way up to the unhypothetical first principle of everything (7 533c7-e3), having acquired the knowledge of the Form of the Good (7 534b8-d2). In this way dialectic makes possible the completion of all the other disciplines that fall under it, and serves as the ruling, master, or architectonic discipline, in the same way that its subject matter, the Form of the Good as the *aitia* and first principle of the being and knowledge of everything else, is the ruling, master, or architectonic subject matter. As Plato puts it, dialectic is the copingstone (\(\theta\rho\iota\gamma\kappa\omicron\varsigma\)) of all the other disciplines (7 534d3-535a2) and is synoptic (\(\sigma\nu\omicron\nu\omicron\pi\tau\iota\kappa\omicron\varsigma\)) and universal in character (7 537b8-c8). Here then we have the discipline that corresponds to the subject matter with which Plato began his description of the *megiston mathêma*.

Let us conclude our survey of Plato’s description of his *megiston mathêma* with a brief summary. Plato begins by revealing that the subject matter of the *megiston mathêma* is the Form of the Good. After professing ignorance concerning its nature, he explains that this subject matter is what every soul pursues and does what it does for the sake of, and its knowledge is sought for its own sake, as well for the sake of ruling (in both public and private). It is the *aitia* of knowledge, truth, being, and *ousia*, and is a first principle, indeed, the unhypothetical first principle of everything. As a result the subject matter of his *megiston mathêma* is both ontologically and epistemologically prior. The former is captured by the obscure claim that the Form of the Good is beyond *ousia* in rank and power as well as by its divine nature, while the latter is reinforced over and over again in various ways. Knowledge of this subject matter is

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\(^{37}\)See also 7.531d7-e6.
necessary for knowledge of anything else to be beneficial, for knowledge of anything fine and
good, and for the knowledge of the first principles of the other disciplines. Moreover, knowledge
of the subject matter of his megiston mathêma is in some way sufficient for knowledge of the
things that fall under it. As a result, the discipline that studies the subject matter of the megiston
mathêma is ruling, architectonic, synoptic, and universal. This discipline is dubbed genuine or
true philosophy and dialectic, and the method by which one acquires knowledge of its subject
matter is the method of hypothesis. The method of acquiring the knowledge of this discipline,
however, is long and difficult, requiring many years of training in various other disciplines. But
it is the possession of such knowledge that is appropriate and necessary for (true) philosophers,
and political rulers, and having acquired the knowledge of it one must be forced to do anything
else other than contemplate it.

Aristotle’s Account of First Philosophy

Given this summary of Plato’s description of his megiston mathêma in Republic 6 and 7, I
now turn to Aristotle’s discussion of first philosophy in Metaphysics A 1-2, Γ 1-3, and E 1.
Once again I will be painting with a very broad brush and ignoring for the most part important
controversies and disputes. My goal will be to reveal the general nature of the project that
Aristotle describes in these chapters. Later books of the Metaphysics (or at least some of them),
and to some extent later chapters of A, Γ, and E, are attempts by Aristotle to pursue this project
himself or to describe and critique earlier attempts at this pursuit by others. But my goal in what
follows is to get clear on the nature of the project being pursued.

Let us begin at the beginning. The Metaphysics famously begins as follows:

All men by nature desire to know. \(\Pi\alpha\nu\tau\epsilon\zeta\ \alpha\nu\tau\rho\omicron\omicron\omega\iota\tau\iota\ \tau\omicron\ \epsilon\iota\delta\epsilon\nu\zeta\ \omicron\rho\omicron\gamma\omicron\omicron\tau\omicron\tau\iota\alpha\ \phi\omicron\sigma\epsilon\iota.\) \[Metaphysics A 1 980a21; Ross trans.\]

Without getting involved in the details of Aristotle’s theory of desire, value, or knowledge, it is
difficult not to read this claim in light of the first sentence of the Nicomachean Ethics:

Every art and every inquiry, and similarly every action and pursuit, is thought to aim at
some good; and for this reason the good has rightly been declared to be that at which all
things aim. \(\Pi\alpha\sigma\alpha\ \tau\acute{e}\chi\nu\zeta\ \kappa\alpha\iota\ \pi\alpha\sigma\sigma\alpha\ \mu\acute{e}\theta\omicron\omega\omicron\delta\omicron\zeta,\ \omicron\mu\omicron\iota\iota\omicron\zeta\ \delta\ \pi\rho\omicron\acute{e}\iota\zeta\ \tau\epsilon\ \kai\ \pi\rho\omicron\acute{a}\iota\rho\omicron\acute{e}\iota\zeta\iota,\ \acute{a}\gamma\alpha\theta\omicron\omicron\)
The good is what all things aim at or desire. What all men aim at or desire is knowing. So, knowledge or knowing would appear to be a candidate for the/ an Aristotelian good. When in the Republic Socrates considers those who respond to the question ‘What is the [Form of the] Good (or what all men aim at or desire)?’ with the answer ‘knowledge’, as Aristotle might be thought to do here at the beginning of the Metaphysics, Socrates immediately objects that such an answer is incomplete at best. We need to know knowledge of what or, as Socrates puts it there, we need to know ‘what sort of knowledge’ (η τις φρόνησις). And this is precisely what Aristotle begins to explain by the end of the chapter. As Aristotle puts it in the last sentence of the chapter, the relevant knowledge is wisdom, i.e., “knowledge about certain first principles and aitiai”. (ὁτι μὲν οὖν ἡ σοφία περὶ τινὰς ἀρχὰς καὶ αἰτίας ἐστίν ἐπιστήμη, δήλον.) [Metaphysics A 1 982a1-3; adapted for Ross trans.]

Between the first and last sentences of the first chapter of Aristotle’s Metaphysics a lot takes place. Aristotle provides a brief justification for the claim in his first sentence (A 1 980a21-27), reiterates in brief his account of Posterior Analytics B 19 for how knowledge arises in humans (A 1 980a27-981a12), and offers an argument - of sorts - for his concluding sentence (A 1 981a12-982a3). I say an ‘argument of sorts’ because while it is clear that Aristotle takes the point of the discussion to make clear that wisdom is knowledge of first principles and aitiai (A 1 981b27-29), it is far from clear that anything like an argument has been offered for this claim. It

38 That Aristotle is not here distinguishing between ‘aiming at’ and ‘desiring’ is clear from the reference back to these opening lines at I.4 1095a14-17: πᾶσα γνώσις καὶ προϊστρεσὶς ἁγαθὸ τινὸς ὁρᾶται, when Aristotle returns to the main thread of argument of the first book of Nicomachean Ethics, following the so-called preamble of chapter 3.

39 I suspect that Aristotle tends to use ‘aitiai’ and ‘archai’ as virtually interchangeable, while Plato takes them to be at least conceptually distinct. Hence, Plato offers the Sun image to show that the megiston mathêma is concerned with aitiai and the Line image to show that it is concerned with archai. The former tend to be ontological, the latter epistemological even in Aristotle. I suspect that archai is more common in, for example, the Posterior Analytics, while aitiai is more common in, for example, the Physics. But I have not done a study of this. Given Aristotle doctrine of things more knowable to us and things more knowable in nature the ontological and epistemological collapse in the case of things more knowable in nature, and hence the distinction between aitiai and archai becomes less important.
might be better to describe what Aristotle has offered as a list of considerations. But how, if at all does this introductory chapter hold together?  

I think the answer to this question can be seen by looking more closely at Aristotle’s brief justification of his opening sentence. Aristotle informs us that a sign (σηµειον) that all humans by nature desire to know is the delight (αγάπησις) we take in our senses, especially sight. He is concerned to stress that we desire them independently of their utility. We chose sight not only for the sake of some action, but also when we are not about to do anything. This is because sight, more than any other sense, makes us know and makes clear many differences. If this is supposed to be a reason for choosing sight even when we are not about to do anything, it must be that the knowledge and clarity that sight provides is something we desire for its own sake. This leads Aristotle to a description of how knowledge and expertise arise in humans (as opposed to other animals) from perceptions such as sight - progressing very roughly from perception (αἰσθησία), which humans share with all animals, to memory (μνήμη), which they share with some, to experience (ἐμπειρία), which is even more rarely shared, to knowledge and expertise (ἐπιστήμη καὶ τέχνη), which humans share with no other animals. Aristotle concludes this abbreviated description of how knowledge arises in humans by pointing out that as far as action is concerned experience is no different than knowledge and expertise; indeed Aristotle suggests that experience might even be better, for

[i]f, ..., a man has the theory without the experience, and recognizes the universal but does not know the individual included in this, he will often fail to cure; for it is the individual that is to be cured.) (ἐὰν οὖν ἄνω τῆς ἐμπειρίας ἐξή τις τῶν λόγων, καὶ τὸ καθόλου μὲν γνωρίζῃ τὸ δ’ ἐν τούτῳ καθ’ ἐκαστὸν αγνοή, πολλάκις διαμαρτήσεται τῆς θεραπείας· θεραπευτὸν γὰρ τὸ καθ’ ἐκαστον/.) [Metaphysics A 1 981a20-24; Ross trans.]

At this point Aristotle lists the considerations offered on behalf of the concluding claim that “wisdom is knowledge about certain first principles and aitiai.” The considerations go

40See (Ross 1924:115) who seems to worry about the unity of this chapter by simply concluding that “the underlying intention throughout ... is to bring out the implications of the words σοφός, σοφία which are finally summed up in 981b27.”

41For the longer version see Posterior Analytics B 19 99b26-100b5.
something like this. Those with experience are more successful than those with expertise; nevertheless, the latter are wiser than the former. Those with expertise know aitiai and ‘the why’ (τὸ διότι), while those with experience only know ‘the that’ (τὸ ὅτι). Those with knowledge can teach; those without knowledge cannot. Perception is not wisdom; perception cannot give aitiai. Those who discovered utilitarian expertises (τεχναι) are wiser than those with experience. Those who discovered the non-utilitarian expertises (τεχναι) or disciplines (ἐπιστήμαι) are wiser than those who discovered the utilitarian ones. Mathematics is evidently non-utilitarian.

Again, Aristotle seems concerned to stress that the value of the knowledge of aitiai and first principles, what makes it choiceworthy or desirable, is not (or not only) what it enables us to do. Wisdom, i.e., the knowledge of aitiai and first principles, is perhaps more than anything else (see A 1 980a25-26), or at least more than any other cognitive achievement, something we desire for its own sake, and this is what connects the first sentence of the chapter to the last. We all by nature desire to know - full stop or for its own sake, not (or not only) for the sake of something else we desire. That is, in part, what distinguishes us from the other animals.

If something like this is what holds this chapter together - what we might call the intrinsic value of wisdom, the project which Aristotle begins to introduce in this chapter shares significant features with the project of Plato’s megiston mathêma. Obviously, both projects share the goal of acquiring the same cognitive state - wisdom. Moreover, both projects also share the same subject matter at least at a certain level of description. They both aim to come to know first principles and aitiai. Of course, Plato’s megiston mathêma aims to come to know the aitiai of knowledge, truth, being, and ousia, as well as the first principle, the unhypothetical first principle of everything, and Aristotle to this point has only indicated that the wisdom his project seeks is of some aitiai and first principles. But Aristotle foreshadows his argument of the second chapter that the aitiai and first principles he seeks to come to know are first aitiai and first principles (what I will call below ‘firsts’) at A 1 981b27-29 indicating an even closer affinity to Plato’s project. Aristotle also alludes the universality of this knowledge at A 1 981a20-24, which is a manifest feature of the knowledge associated with Plato’s megiston mathêma. But what I think is
less appreciated is that Aristotle introduces the project of first philosophy by calling to mind considerations associated with the good. I do not say the Form of the Good, because Aristotle obviously rejects Plato’s Form of the Good. But Aristotle’s first sentence of the *Metaphysics* recalls Socrates’ consideration of the Form of the Good as knowledge in *Republic* 6, and Aristotle’s introductory chapter goes on to emphasize that the goal sought by the project he is introducing is a goal, like Plato’s Form of the Good, that is sought for its own sake.

This affinity between Plato’s and Aristotle’s projects, as well as their connection with the good, is reinforced in the second chapter of *Metaphysics A*. The chapter begins with the question “what kind are the aitiai and the first principles, the knowledge of which is Wisdom?” (ἡ περὶ ποίας αἰτίας καὶ περὶ ποίας ἀρχῆς ἐπιστήμη σοφία ἐστίν.) [*Metaphysics* 1.2 982a5-6; adapted from Ross trans.]. To answer this question Aristotle turns to the beliefs (ὑπολήψεις) we have concerning wisdom. He lists six. First, we think that the wise person knows everything to the extent possible, although he does not have ‘καθ’ εκαστῶν knowledge of them’. Second, we think that acquiring wisdom is difficult. Third, that one is wiser in every discipline to the extent that one is more exact and more capable of teaching the aitiai. Fourth, that wisdom is desirable

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42See n.[17] above.  
43I do not deny, however, that there are important differences. Clearly the manner of presentation is different in Plato and Aristotle. Plato appeals to images and analogies to explain and describe his megiston mathêma. Aristotle, on the other hand, appeals common conceptions or beliefs to encourage the idea that wisdom is desirable for its own sake and is the knowledge of aitiai and first principles. And this difference may reflect important methodological differences.  
44Aristotle has already suggested his answer to this question - that the aitiai and principles are first aitiai and principles - at 981b27-29. But he offers an argument for this answer here in chapter 2. This question is particularly important for Aristotle because in *Posterior Analytics* 1.9 he evidently argues against there being first principles of everything and for there being unique first principles to each discipline. Consequently, he must here in the *Metaphysics* he must ask what are the unique aitiai and first principles of this discipline the first philosopher seeks to acquire. There may be some reason to suspect that in *Posterior Analytics* 1.9 Aristotle is aiming to respond to what I have called the explosion problem associated with the Socratic model of knowledge adopted with modifications by Plato (and perhaps Aristotle) - roughly the idea that in order to know anything one must know everything. See (Ross 1949:???), (Cherniss 1944:73 n 55) CHECK, and (Baltzly 1999:196). To the extent that one thinks in the *Metaphysics* that Aristotle is sympathetic with Plato about the architectonic nature of first philosophy, Aristotle may need to rethink he solution to the explosion problem.  
45It is not clear what this last clause means. Ross translates it as ‘he has not knowledge of each of them in detail’. Tredennick as ‘without having knowledge of every one of them individually’. I suspect we should read this clause in light of the puzzle and Aristotle’s solution at *Posterior Analytics* 1.1 71a17-30 and 1.24 86a22-29. But I will not pursue that here. See *Republic* 7.520c.
for its own sake and for the sake of knowing (καὶ τὸν ἐπιστημονὸν δὲ τὴν αὐτῆς ἔνεκεν καὶ τοῦ εἰδέναι χάριν αἵρετήν οὖσαν μᾶλλον εἶναι σοφιὰν ἢ τὴν τῶν ἀποβαινόντων ἔνεκεν; A 2 982a14-16). Fifth, that wisdom is a master discipline (τὴν ἀρχικωτέραν) over subordinate disciplines. And finally, we think that the wise person should rule - be obeyed, not obey (οὐ γὰρ δεῖν ἐπιτάττεσθαι τὸν σοφὸν ἀλλ’ ἐπιτάττειν, καὶ οὐ τοῦτον ἔτερῳ πείθεσθαι, ἀλλὰ τοῦτῳ τὸν ἤττον σοφὸν; A 2 982a17-19).

All six of the things that we believe concerning wisdom according to Aristotle are manifestly associated with Plato’s megiston mathêma. As we have seen, the philosophers who have acquired the knowledge of the subject matter of Plato’s megiston mathêma know all things. On their return to the cave, they even know that the images are images and of what they are images. The philosophers who have acquired this knowledge have done so only after a long and difficult route, requiring many years of mathematical training. Its subject matter is explicitly described as “what every soul pursues and does what it does for the sake of” (Ο δὴ διώκει μὲν ἀπασα γνώσι καὶ τοῦτον ἔνεκα πάντα πράττει; Republic 6.505d11-e1), and having acquired it the philosopher must be forced to use it.46 It is the ‘coping-stone’ discipline, and of course, the knowledge of this subject matter belongs to the philosopher ruler. The only feature mentioned in Aristotle’s list of beliefs that is not obviously associated with Plato’s megiston mathêma is the exactness (ἀκριβέστερον) and teachability (διδασκαλικωτέρον) of wisdom. Plato does describe the longer road which leads to the knowledge of the Form of the Good as striving for exactness (ἀκριβεία),47 but once the description of the megiston mathêma officially begins neither ἀκριβεία nor its cognates are used to describe it. Nevertheless, Plato’s use of σαφήνεια and its cognates in the Line as well as the requirement of extensive training in the mathematical disciplines48 may indicate the exactness of the knowledge associated with the megiston mathêma. And while the

46Here is one place where one might think that the distinction between subject matter or content and cognitive state might collapse for both Plato and Aristotle. Does one seek the Form of the Good or does one seek to possess (know) the Form of the Good?
47See Republic 6 504b6-7 and 504e?–?.
48Often referred to in the literature as ‘the exact sciences’. 
teachability of this knowledge is not explicitly asserted to my knowledge in Plato’s description of his *megiston mathêma*, it is strongly implied by the long discussion of the *education* of the philosopher rulers that culminates in this knowledge.\(^{49}\) Consequently, the features which Aristotle tells us here that we all believe belong to wisdom and which he is about to argue belong to knowledge of first *aitiai* and first principles also belong the wisdom associated with Plato’s *megiston mathêma*.

Next, Aristotle offers an argument to the effect that the (theoretical) knowledge of first *aitiai* and first principles (which for short I will call simply knowledge of firsts)\(^{50}\) satisfies these features which we all believe belong to wisdom (ἐξ ἀπάντων ὁν τῶν εἰρημένων ἐπὶ τὴν αὐτὴν ἐπιστήμην πίπτει τὸ ζητούμενον όνομα· δεῖ γὰρ ταύτην τῶν πρῶτων ἀρχῶν καὶ αἰτίων εἶναι θεωρητικὴν; Α 2 982b7-10). The argument is compressed, but it goes roughly as follows. At A 2 982a21-23, he asserts that the one with universal knowledge (τὴν καθόλου ἐπιστήμην) knows in a sense all the things that fall under the universal (οὗτος γὰρ οἶδε πως πάντα τὰ ύποκείμενα) and so knows all things.\(^{51}\) If this is supposed to show that knowledge of firsts knows all things (and there is nothing else in the passage which could), Aristotle must be assuming that knowledge of firsts is universal knowledge. Next, Aristotle maintains that universal knowledge is the most difficult to acquire, because it is farthest from perception (Α 2 982a23-25), and so, again assuming that knowledge of firsts is universal knowledge, knowledge of firsts is the most difficult to acquire. At A 2 982a25-28 Aristotle explains that disciplines with fewer principles are more exact than those with more, for example, arithmetic is more exact than geometry, and so, the knowledge or discipline of firsts is the most exact (ἀκριβέσταται) of the disciplines. To get this conclusion Aristotle must be assuming that the knowledge of firsts has the least first

\(^{49}\)Perhaps, also by the leader in the Cave and the Platonic commonplace that knowledge is teachable; see, for example, *Timaeus* ...

\(^{50}\)It is clear that ‘πρῶτων’ in ‘τῶν πρῶτων ἀρχῶν καὶ αἰτίων’ modifies both ‘ἀρχῶν’ and ‘αἰτίων’. But a common translation of ‘ἀρχή’ is ‘first principle’; indeed that is how I have been translating it in, for example, ‘τὸ ἐπὶ ἀρχὴν ἀνυπόθετον’ at *Republic* 6 510b6. Consequently, this might encourage the rather inelegant translation of ‘τῶν πρῶτων ἀρχῶν καὶ αἰτίων’ as ‘of first first principles and explanations’. For short, I will simply use ‘of firsts’.

\(^{51}\)see n above.
principles and aitiai. The knowledge or discipline of firsts is instructive because those who teach give the aitia of each thing. Next, Aristotle informs us that the knowledge or discipline of firsts is desired for its own sake, for the knowledge of the most knowable things (μάλιστα ἐπιστήμα) is desired for its own sake and the knowledge of firsts is knowledge of the most knowable things. This latter claim is explained on the grounds that it is through and from firsts that all other things are known, and not them from other things (διὰ γὰρ ταῦτα καὶ ἐκ τούτων τὰλλα γνωρίζεται ὀλλ᾽ οὐ ταῦτα διὰ τῶν ὑποκειμένων; A 2 982b2-4). Moreover, this knowledge of firsts knows that because of which each thing is to be done (since that because of which each thing is done is an aitia - the final aitia), and as a result the knowledge of firsts is the most architectonic (ἀρχικωτάτη). Aristotle concludes by pointing out that in virtue of knowing that because of which each thing is to be done, the knowledge of firsts knows “the good of that thing, and in general the supreme good in the whole of nature” (τοῦτο δ᾽ ἐστὶ τάγαθὸν ἐκάστου, ὀλως δὲ τὸ ἄριστον ἐν τῇ φύσει πάσῃ; A 2 982b6-7; Ross trans.). It is evidently in virtue of this knowledge of the best good that the one with the knowledge of firsts should rule - should be obeyed, not obey.

This is a remarkable passage which recalls Plato’s discussion of the megiston mathêma in a variety of ways. Like Plato’s megiston mathêma, which is also associated with wisdom and amounts to the knowledge of first aitiai and first principles, Aristotle’s knowledge of firsts is universal knowledge in some way sufficient for all of the knowledge that falls under it. It is extremely difficult to acquire because it is in some way furthest from sense perception. It is

52See Posterior Analytics I.27 87a31-37. What Aristotle has in mind by fewer and more (or additional) principles is not obvious. The example, he gives in the Posterior Analytics is as follows: arithmetic is more exact than geometry because arithmetic proceeds from μονάς οὐσία ἄθετος (the principle that a monad is a positionless ousia), while geometry proceeds from στιγμή δὲ οὐσία θετός (the principle that a point is positioned ousia). The suggestion here is that geometry adds something to arithmetic. The question is whether what it adds is something included in arithmetic, but not qua first principle, or something missing from arithmetic. The latter suggests that the movement in the direction of exactness is in the direction of thinness and universality; the former suggests the movement is in the direction of thickness and specificity. As we will see both movements are suggested by both Plato and Aristotle. For example, the example of arithmetic’s being more exact that geometry might be taken as suggesting a movement in the direction of thinness and universality; but, the claim which is about to follow that from firsts all other things are known might be taken to suggest a movement in the direction of thickness and specificity. See pp. xxx below.
desired for its own sake and knowledge of the most knowable things.\textsuperscript{53} It is epistemologically primary in that all other things are known through and because of the knowledge of firsts. Knowledge of them is in some way necessary and sufficient for knowledge of anything else. Indeed, as a result, the knowledge of firsts is the master discipline to which all other disciplines are subordinate. It knows that because of which things should be done. Indeed, it is knowledge of the best good, and as a result is the knowledge that belongs to the one who should rule. Aristotle even refers to the relationships among the mathematical disciplines - arithmetic and geometry - to make one his points, calling to mind Plato’s account of the education of the philosopher rulers, although the relationship Aristotle suggests in this chapter is at odds with the relationship suggested by Plato’s discussion.\textsuperscript{54}

Aristotle goes on in the rest of the chapter to insist that this knowledge of firsts is not productive (ποιητική), but desired for its own sake (μόνη γὰρ ἀυτὴ ἀυτῆς ἕνεκέν ἐστιν) (A 2 982b11-27). He also asserts that “the possession of [this knowledge] might be justly regarded as beyond human power” (διὸ καὶ δικαίως ἂν οὖκ ἀνθρωπίνη νομίζοιτο ἀυτῆς ἡ κτήσις; A 2 982b28-29; Ross trans.), but that it is not. It is, however, most divine and honorable (θειότατη καὶ τιμωτάτη), both in terms of its objects and in terms of those to whom it most belongs (A 2 982b28-983a11).\textsuperscript{55} Finally, he points out that though the knowledge of firsts begins in wonder it should not end in wonder, suggesting a kind of stability or firmness in its possession (A 2 983a11-23).\textsuperscript{56} In the course of making this last point, Aristotle writes

For all men begin, as we said, by wondering that things are as they are, as they do about self-moving marionettes (τῶν θαυμάτων ταύτοματα), or about the solstices or the incommensurability of the diagonal of a square with the side;” [A 2 983a12-16; Ross trans.].

\textsuperscript{53}Compare Plato’s use of νοητοῦ at Republic 7 532b3.

\textsuperscript{54}More on this later and n. above.

\textsuperscript{55}Recall Republic 7.517d4 and 7.518d9-a7, as well as the comparison to the sun throughout books 6 and 7.

\textsuperscript{56}Compare, “Therefore, dialectic is the only inquiry that travels this road (ἡ διαλεκτικὴ μέθοδος μόνη ταύτη πορεύεται), doing away with hypotheses (τὰς ὑποθέσεις ἀναφοράς) and proceeding to the first principle itself, so as to be secure (ἐπ’ ἀυτῆν τὴν ἀρχὴν ἵνα βεβαιώσηται).” [Republic 7 533c2; trans. ?]
perhaps alluding to the puppets in Plato’s cave and the conversation with the slave in Plato’s Meno.\textsuperscript{57} It would seem that Aristotle has Plato, and in particular the project of Republic 6 and 7 in mind here as he introduces his project of first philosophy.

The remainder of Metaphysics A is devoted to an inventory and critique of earlier thinker’s doctrines of firsts. Indeed, it may be the devastating critique of Plato’s theory of Forms in chapter 9 of this book that has made it so difficult to appreciate the influence of the Republic on Aristotle’s account of first philosophy. Certainly, the Republic is a key text for an understanding of Plato’s theory of Forms, and the theory of Forms is probably best understood as Plato’s substantive development of the project described in his megiston mathêma.\textsuperscript{58} And, after correctly taking Plato’s Forms to be (first) aitai (A 6 987b18-22),\textsuperscript{59} Aristotle devotes an entire chapter - over two and a half Bekker pages - to a series of arguments directed at debunking (Aristotle’s understanding of) the theory of Forms. But, of course, this is no reason to doubt that Aristotle sees the project he is describing in the first book of the Metaphysics as Plato’s project described in Republic 6 and 7. It is perhaps better seen as a confirmation that this is how Aristotle views the matter. If Aristotle sees himself as engaged in the same project that Plato describes in Republic 6 and 7, we should expect Aristotle to provide a critique of his teacher’s own development of that project - the theory of Forms - before proceeding to his own development. But let us return to the text.

The first chapter of Metaphysics Γ is brief, but its point is clear.\textsuperscript{60} Aristotle is concerned to identify the knowledge or discipline of being qua being (το \(\overset{\circ}{ο}ν \overset{\circ}{ν}\)) with the knowledge or

\begin{footnotes}
\item[57] (Ross 1924:123) correctly cites Republic 514b here, but this is one of only two references to Plato’s Republic in Ross’ notes on the first two chapter of Metaphysics A, although he refers to other Platonic dialogues at total of twelve times. The other reference to the Republic concerns Aristotle reference to a free (ἐλευθερὸν) knowledge or discipline, citing Republic 499a and 536e.
\item[58] At least to the extent that a complete understanding of the theory of Forms depends on a complete understanding of the Form of the Good, however we ultimately come to understand that.
\item[59] See Phaedo ...
\item[60] I here pass over Metaphysics B (especially chapter 2). On my reading, it offers no additional similarities between Aristotle’s project and Plato’s project, nor does it indicate any substantial differences. One difference it might be thought to indicate is that it endorses an aporetic method for the project Aristotle is describing. Whether such a method is actually endorsed by Aristotle and whether that amounts to difference with Plato depends on a careful examination of what the aporetic method is supposed to be. I cannot pursue such an examination here. But see, for example, (Politis 2003) ...
\end{footnotes}
discipline of firsts. Before Aristotle began his dissertation on the history of aitiai prior to the discovery of his own four aitiai theory, we had seen that the nature of the knowledge he was seeking (ἡ φύσις τῆς ἐπιστήμης τῆς ζητουμένης; 1.2 983a21) was wisdom, i.e. the knowledge of firsts. Aristotle identifies the project of Metaphysics Γ with the project described in the first two chapters of Metaphysics A, as follows

Now since we are seeking the first principles and the highest aitiai (τὰς ἀρχὰς καὶ τὰς ἀκροτάτας αἰτίας), clearly there must be some thing to which these belong in virtue of its own nature. If then those who sought the elements of existing things were seeking these same principles, it is necessary that the elements must be elements of being not by accident but just because it is being. Therefore it is of being as being (του ὣν) that we also must grasp the first aitiai (τὰς πρῶτας αἰτίας). (ἐπεὶ δὲ τὰς ἀρχὰς καὶ τὰς ἀκροτάτας αἰτίας ζητοῦμεν, δὴλον ὡς φύσεως τινος αὐτὰς ἀναγκαῖον εἶναι καθ᾽ αὐτήν. εἰ οὖν καὶ οἱ τὰ στοιχεῖα τῶν ὄντων ζητοῦντες ταύτας τὰς ἀρχὰς ἐξήστουν, ἀνάγκη καὶ τὰ στοιχεῖα τοῦ ὄντος εἶναι μὴ κατὰ συμβεβηκὸς ἀλλ᾽ ἦν ὄν: διὸ καὶ ἡμῖν τῷ ὄντος ἦν τὰς πρῶτας αἰτίας ληπτὲν.) [Metaphysics IV.1 1003a26-32; adapted from Ross trans.]

The knowledge of being qua being of Metaphysics Γ is the knowledge of firsts of Metaphysics A. Of course, what precisely this knowledge of being qua being amounts to is matter of considerable controversy. All that Aristotle tells us here in the first chapter is that it is not one of the so-called special disciplines (τῶν ἐν μέρει λεγομένων), for the special disciplines, like mathematics, do not investigate being qua being universally, but only a part of it. Nevertheless, Aristotle’s project is to seek this knowledge. And, as we have seen from the first two chapters of Metaphysics A this is also the project, according to Plato in Republic 6 and 7, in which the genuine philosopher or philosopher ruler must engage. It is Plato’s megiston mathêma.

The task of the second chapter of Γ is to establish that there is a unique subject matter for this knowledge of firsts, or being qua being, and what that subject matter is - beyond I suppose the name 'firsts’ or ‘being qua being’. This is important for Aristotle because he is often critical of Plato for not recognizing the significance of identifying unique subject matters. Plato simply assumes, it might be thought, that there is a subject matter of the megiston mathêma and that it is the Form of the Good. He offers no argument for this thesis, but only points out that

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61See, for example, (Irwin 1977:218).
62See n 18 above.
Glaucön has often heard it before. To the extent that such an argument is to be found, it would likely have to come from his argument on behalf of the theory of Forms in general, to the extent that he has such an argument. Aристотель, however, has offered arguments in the *Posterior Analytics* to the effect that genuine knowledge requires a unified subject matter. As Aristotle puts it

"Thus you cannot prove (δειξαί) anything by crossing from another kind—e.g. something geometrical by arithmetic. (Ὅυκ ἄρα ἐστίν ἐξ ἄλλου γένους μεταβάντα δείξαί, οίνον τὸ γεωμετρικὸν ἀριθμητικῆ.) [Posterior Analytics Α 7 75a38-39; Barnes trans.]"

But, Aristotle also is frequently critical of Plato for failing to recognize that unity does not follow immediately from having a common name. Again, as Aristotle is fond of saying a thing (e.g., being, cause, good, et al.) ‘is said in many ways’ (πολλαχως λεγεται). Consequently, Aristotle devotes the entire chapter to establishing by means of his doctrine of pros hen equivocation that there is a unique subject matter of this knowledge or discipline. The subject matter is οὐσίαι and their per se attributes (τῶν ὑπαρχόντων), like unity, plurality, sameness, and difference.

In the course of Aristotle’s argument concerning the subject matter of knowledge of being qua being, he twice indicates the architectonic nature of this knowledge or discipline in ways that are suggestive of Plato’s *megiston mathêma*. The first one raises considerations which we will address when we turn to the first chapter of book E, but the second one recalls Plato’s image of the Line. At Γ 2 1005a11-13 Aristotle maintains that since it belongs to one discipline, the discipline of being qua being, to examine (θεωρησαί) unity, plurality, and the contraries it does not belong to geometry to examine (θεωρησαί) what contrariety is or what completeness is or

63 For the debate concerning arguments for the theory of Forms see ...
64 See, especially, A7 75b14-20 and A12 77b5-15. See also A9 75b37-76a25, A10 76a37-76b2, and A32 88a18-19...88a30-88b3.
65 See ....
66 See, for example, (Code 1986), (Fraser 2002) and (Weden 2004:226 n 1), pace, for example, (Irwin 1977:221 n 14).
67 To distinguish this discipline from subordinate disciplines like biology, zoology, even geometry and ethics, Aristotle must mean the attributes of the οὐσίαι qua οὐσίαι. See, for example, (Bell 1999:84) and perhaps Fraser, et al. The account of the task of this second chapter that I have offered in this paragraph is more controversial than I have made it appear. But I do not think that the substance of the controversy matters for our current concerns. However Aristotle manages to do it, if I am right that he sees himself as pursuing the same project as Republic 6 and 7, he must provide a way of doing so that does not violate the sorts of objections he has raised elsewhere concerning Plato’s engagement in this project.
what oneness is or what sameness is or what difference is. Rather geometry proceeds by treating these as hypotheses (ἄλλα ἢ ἐξ ὑποθέσεως). Here Aristotle endorses Plato’s idea in the Line that geometers should treat their first principles as hypotheses, turning them over to the dialecticians, whose task it is to ‘destroy’ these hypotheses by making them known - by proceeding all the way to the unhypothetical first principle of everything, and deriving them therefrom.68

Having established that the subject matter of first philosophy, the knowledge of being qua being or the knowledge of firsts, is οὐσία and their per se attributes, Aristotle turns in Γ 3 to an examination of the axioms (ἀξιωμάτων), in particular the principles of non-contradiction (PNC) and excluded middle (PEM). He begins his examination by maintaining that it belongs to first philosophy to examine the axioms because they are true of all beings and not just of some genera apart from others (Γ 3 1005a21-23). As a result everyone makes use of them, although only so far as it suffices (ικανόν)69 for the purposes of their subordinate disciplines (Γ 3 1005a23-27), like geometry and arithmetic. While some of the natural philosophers (τῶν φυσικῶν ἐνιοί) have examined them, it was only as result of their mistaken belief that natural philosophy (φυσική) was first philosophy. Aristotle describes the first philosopher as the one who knows best each genus (τὸν μάλιστα γνωρίζοντα περὶ ἕκαστον γένος) and the axioms as the firmest principles (βεβαιότατας ἀρχας). He describes the firmest principles as those about which it is not possible to be mistaken (περὶ ἣν διαψευσθῆναι ἄδονατον), best known (γνωριμωτάτην), and unhypothetical (ἀνυπόθετον). It is necessary to know these principles in order to know anything

68 Both (Ross 1924, v. 1 261) and (Kirwin 1971, 86) take Aristotle to have Plato in mind here; the latter going so far as to cite Republic 510c-d. Aristotle’s commitment that the knowledge of firsts is necessary for knowledge of the subordinate disciplines has the consequence that one who has not pursued first philosophy and so has not arrived at the knowledge of firsts cannot know the subordinate disciplines. This might seem to fly in the face of textual evidence to the effect that geometers, for example, (even those who fail to be philosophers) know geometry. See, for example, (Code 1986:345) who argues that geometers do not need an argument on behalf of PNC since, because they know their disciplines, they already know PNC (given that knowledge of it is necessary for knowledge of anything else). But I think Aristotle would hesitate to attribute knowledge, i.e., robust knowledge, explanatory knowledge, knowledge τὸ ὀφέλος, to the geometrician who has not pursued first philosophy. Aristotle has gone to considerable trouble, I believe, to distinguish various levels or types of knowledge precisely to make more palatable his endorsement of Plato’s view that the pursuit of the knowledge of the subject matter of his megistos mathêma is prior to acquiring knowledge (in the robust sense) of anything else at all.

69 See Phaedo ...
else. Aristotle concludes Γ 3 by arguing that the principle that satisfies these conditions is the principle of non-contradiction (PNC) - the principle “that the same attribute cannot at the same time belong and not belong to the same subject and in the same respect” (τὸ γὰρ αὐτὸ ἀμα ύπάρχειν τε καὶ μὴ ύπάρχειν ἀδύνατον τῷ ἀυτῷ καὶ κατὰ τὸ ἀυτό; Metaphysics Γ 3 1005b19-22; Ross trans.).

Aristotle use of ἀνυπόθετος at Metaphysics Γ 3 1005b14 seems to clinch the case that he has Plato’s megiston mathêma in mind here in Γ 3. Plato’s uses of the same word in the image of the Line at Republic 510b7 and 511b6 are Plato’s only uses of this word in his corpus. And Aristotle only uses it once - here. In some way, Aristotle obviously sees the PNC as corresponding to Plato’s unhypothetical first principle in the Line. This is reinforced by Aristotle’s description that though the practitioners of other disciplines (in particular the geometers and arithmeticians) use them they do not even try to say anything concerning them (ἐγρήγορει λέγειν τι περὶ αὐτῶν; Γ 3 1005a29?; cf. Republic 6 510c?: ποιησάμενοι ὑποθέσεις αὐτά, οὐδένα λόγον οὕτε αὐτοῖς οὔτε ἄλλοις ἐπὶ ἄξιοσί περὶ αὐτῶν διδόναι ὡς παντὶ φανερῶν). Rather it belongs to someone above (ἀνωτέρω) these practitioners to investigate (σκέψις) them - the (first) philosopher. Aristotle’s use of βεβαιοτάτος - a word whose cognates he repeats four more times in the next 25 lines - recalls Plato’s use of the verb from the same root in describing the the longer road dialectic must take in making firm its unhypothetical first principle. Again, Aristotle would seem to have Plato’s image of the Line in mind, and, of course, the Line is part of Plato’s attempt to explain his megiston mathêma.

Finally, I want to conclude by turning to the first chapter of Metaphysics E. Here we come face to face with an alleged tension in Aristotle’s account of first philosophy. We have met

70Specifying precisely what this principle amounts to (as well as PEM) is the topic of an enormous literature. Fortunately, for our current concerns we do not need to pursue that literature here. See ...
71See Baltzly, Bailey, Kirwin, Ross, (Wedin 2004:231–232), et al.
72See n ?? above.
73Nevertheless, I think it is a mistake to take Aristotle (and Plato) to be committed to thinking that PNC is the only unhypothetical principle, pace (Baltzly 1996) and (Bailey 2006), but I cannot defend that belief here. For other helpful discussions see (Wedin 2000) and (Wedin 2004).
with this alleged tension before, but here in E’s first chapter Aristotle raises the issue himself. We might put the tension by asking whether the subject matter of Aristotle’s first philosophy is the nature of being in general (what is true of all things that are simply in virtue of being) or the nature of some primary being on which all other beings in some way depend (what is the nature of primary ousia, for example). The former suggests a relatively thin, universal, abstract subject matter. The latter a thicker, more specific, and more concrete subject matter. Aristotle appears to raise this question directly in the first chapter of book E, although his answer is somewhat less direct.

The chapter begins innocently enough by reminding us that the discipline we are concerned with is the one that seeks the first principles and aitiai of beings qua beings (Αἱ ἀρχαὶ καὶ τὰ ἀίτια ζητεῖται τῶν ὄντων, δὴ ὄν ὑπὸ ὄντα; Metaphysics VI 1 1025b3-4). Next, Aristotle maintains that the subordinate disciplines begin from the essence (τι ἐστὶν) and existence (εἰ ἐστὶν) of their respective subject matter (οὐσία), which are made clear by perceptions or assumed as a hypothesis (αι ἀντὶ αἰσθῆσαι ποιήσασαι αὕτα δὴ ὄντων δὲ ὑπόθεσαι λαβόσαι τὸ τι ἐστὶν), and then demonstrate (ἀποδεικνύοσαι) the things belonging to the genus καθ’ αὐτὰ. As a result these disciplines fail to have a demonstration of οὐσία or even to talk about about the essence or existence of their subject matter. Rather, it belongs to the same discipline to make clear both the essence and existence of the subject matters of those subordinate disciplines - presumably, first philosophy or the discipline of being qua being. Aristotle’s discussion here recalls the structure of demonstrative knowledge described in the first book of the Posterior Analytics according to which subordinate disciplines do not ask either if there genus exists or what it is. But it also recalls Plato’s image of the Line according to which the geometers and the like should treat their first principles as hypotheses and unknown until they have been derived from the unhypothetical first principle of everything by the dialecticians or philosophers.
Next Aristotle distinguishes between the three theoretical disciplines\(^{74}\) - physics, mathematics, and theology (ὡς τρεῖς ἄν εἶν φιλοσοφίαι θεωρητικαὶ, μαθηματικὴ, φυσικὴ, θεολογικὴ), pointing out that the most honored (τιμωτάτην), perhaps highest, disciplines are concerned with the most honored genera. Thus, while the three theoretical disciplines are more honored than the other (subordinate) disciplines, theology is to be more honored than the other two theoretical disciplines because its subject matter or genus is more honored.

Near the end of the chapter Aristotle raises the question whether first philosophy is universal or concerned with some specific genus (ποτερόν ποθ’ ἡ πρώτη φιλοσοφία καθόλου ἐστὶν ἡ περὶ τι γένος καὶ φύσιν τινὰ μίαν), and proceeds to suggest both. First, he suggests that first philosophy stands to its subordinate disciplines as mathematics stands to geometry and astronomy - as universal and common to all. He suggests, that is, that the subject matter of first philosophy is universal being, what beings qua beings have in common.\(^{75}\) And then he writes

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\text{if there is no substance other than those which are formed by nature, physikê will be the first knowledge; but if there is an immovable substance, the knowledge of this must be prior and must be first philosophy, and universal in this way, because it is first. And it will belong to this to consider being qua being - both what it is and the attributes which belong to it qua being. (εἰ μὲν οὖν μὴ ἐστὶ τις ἄλλος ωὐσία παρὰ τὰς φύσεις συνεστηκυιας, ἢ φυσικὴ ἄν εἰ πρώτη ἐπιστήμη· εἰ δ’ ἐστὶ τις ωὐσία ἀκίνητος, αὕτη πρῶτη καὶ φιλοσοφία πρώτη, καὶ καθόλου ωὐσίως ὅτι πρώτη· καὶ περὶ τοῦ ὄντος ἢ ὅν ταύτης ἢ εἰ ὑπάρχωσι, καὶ τι ἐστὶ καὶ τὰ ὑπάρχοντα ἢ ὁν.) [Metaphysics VI 1 1026a23-32; adapted from Ross trans.]}^{76}
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This suggests a different relation. It suggests that first philosophy stands to it subordinate disciplines as astronomy stands to geometry (on the assumption that the subject matter of astronomy, the motions of the stars, are more honored than planes and surfaces) rather than in the way mathematics (or even arithmetic) stands to geometry. It suggests, that is, that the subject matter of first philosophy is primary being, whether that ends up being movable substances or immovable ones - physics or theology.\(^{77}\)

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\(^{74}\)The relationship between the theoretical and practical disciplines is complex in light of Aristotle’s commitment in \textit{Metaphysics} A.2 that first philosophy knows that because of which each things should be done. See n below.

\(^{75}\)See, for example (Code 1986:353 & n 46), who apparently endorses this view of Aristotle’s first philosophy.

\(^{76}\)See, e.g., (Kirwin 1971:188–189). Ross’ translation begins this passage with ‘We answer that’ which is not in the Greek.

\(^{77}\)See also Γ 2 1004a2-9 which suggests or allows both readings.
Whether or not an genuine tension exists between these two conceptions of the subject matter of first philosophy, a similar issue troubles Plato’s account of the *megiston mathêma*. The worry comes out most clearly in Plato’s description of the education of the philosopher rulers. As we have seen, Plato insists that future philosopher rulers are required to go through an extensive education. After their training in gymnastics and music (γυµναστικῆς μὴν καὶ µουσικῆς), they begin their work in mathematics. First, the future philosopher rulers are trained in arithmetic. Plato explains the move from gymnastics, music, and the other expertises (τεχνῶν) to arithmetic in way that suggests the appropriateness of arithmetic is that it more universal than these other disciplines. Next, the philosopher rulers are trained in geometry, stereometry, astronomy, harmonics, and, finally, dialectic at the age of 50. If the structure of this educational procedure is thought to represent the ascent to the unhypothetical first principle represented in the Line or the ascent from the cave in the Cave, then the educational ascent would seem to represent progressively more and more universal disciplines. The ascent in those images suggests an ascent to architectonic and synoptic disciplines that in some way provide the first principles of their subordinate disciplines, in much the same way that biology, for example, might be viewed as the architectonic discipline under which botany and zoology fall. In this way dialectic, as the master and superordinate discipline, provides the first principles (e.g. PNC) of all the subordinate disciplines that there are. Of course, it is difficult to see how the actual pedagogical procedure that Plato describes in *Republic* 7 can be seen to fit this pattern. It is difficult to see how the subject matter of astronomy can be thought to be more universal than the subject matter of arithmetic or geometry or how the subject matter of dialectic, presumably the Good, is more universal than the subject matter of harmonics. So the question concerning the subject matter

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78 (Politis 2004:118–121), for example, argues that no such tension actually arises in Aristotle’s *Metaphysics*. The two views of the subject matter are completely compatible. That may very well be. My current concern is simply to note that a similar tension (whether genuine or not) can be felt in Plato’s *megiston mathêma*.

79 See *Republic* 522b8-c9.

80 Recall all of the places above where Aristotle seemed to represent their relationship inversely.

81 (Santas 1980)’s view that the Form of the Good is roughly the theory of ideal properties of Forms provides an account of the Form of the Good which is more universal than the subject matter of harmonics, but then the move up the educational ascent is anomalous at the last step. It only the steps to arithmetic and dialectic that represent steps to a more universal subject matter.
of Plato’s *megiston mathêma* arises in much the same way it arises for the subject matter of Aristotle’s first philosophy. Does the ascent of these propaideutic disciplines to dialectic indicate that the subject matter of the *megiston mathêma* is relatively thin, universal, and abstract, or thicker, more specific, and more concrete? Perhaps, Plato would endorse Aristotle’s inscrutable comment that “the knowledge of this [i.e., Form of the Good and the unhypothetical first principle of everything] must be prior and must be first philosophy [or dialectic and the *megiston mathêma*], and universal in this way, because it is first” - whatever way exactly that is supposed to be.

I mention this issue here at the end of the essay not because I think seeing that the alleged tension in Aristotle’s conception of first philosophy has a counter-part in Plato’s conception of his *megiston mathêma* resolves any outstanding debates either for Aristotle’s conception of first philosophy or for Plato’s conception of his *megiston mathêma*. Rather, I mention it to highlight the similarities of the two projects. They both appear to be struggling with the same issues - a struggle I will return to in a moment.

**Conclusion**

In conclusion, Aristotle’s debt to Plato’s *megiston mathêma* in *Republic* 6 and 7 is deeper and more significant than one might have supposed. The project Aristotle introduces in the opening chapters of his *Metaphysics* is essentially the same as the project Plato describes as the final inquiry of his philosopher rulers. The subject matters of both projects are importantly associated with the good (for Plato it is the Form of the Good) and sought for its own sake. For both Plato and Aristotle, acquiring this subject matter amounts to wisdom or knowledge of first *aitiai* and first principles. As such, the subject matter of both of these projects is both ontologically and epistemologically prior to the subject matters of all other disciplines, making the discipline of genuine or first philosophy, dialectic, being qua being, or theology, the master, architectonic, universal, synoptic, and primary discipline. The practice of this discipline, for both philosophers, ends in the acquisition of a cognitive state that is extremely difficult to acquire in
part because it is furthest away from what is most familiar to us. Nevertheless, the knowledge that one acquires as result of practicing this discipline, for both Plato and Aristotle, is necessary and sufficient for any other (genuine) knowledge. It is, as Aristotle puts it, the knowledge of those things from which and through which all other things come to be known (διὰ γὰρ τὰ ἄλλα καὶ ἐκ τούτων τὰ ἄλλα γνωρίζεται; 1 2 982b2-3). Both Plato and Aristotle take the first principles of this discipline to be in some way unhypothetical, most known, and firmest of all the first principles of the other disciplines. Indeed, the discipline somehow manages to make firm, make known, or establish the first principles of those subordinate disciplines. And finally, for both Plato and Aristotle, as the master, architectonic discipline of all the other disciplines its practitioners should be obeyed, not obey. They should rule.

But so what? So, there are similarities between Plato’s project described in *Republic* 6 and 7 and Aristotle’s project described in the opening chapters of the *Metaphysics*. And so, these similarities may be a bit more pervasive than we might have supposed. Why does that matter? Why should we think such similarities have some deep significance? Whenever one engages in these sorts of comparative analyses one should always worry whether the similarities matter, and I have offered nothing to indicate that they do. Perhaps they don’t. I certainly won’t try to suggest that they do here at the end of the essay. But I will end by speculating that seeing that both Plato and Aristotle appear to face the same general tension in their projects (as I mention in discussing *Metaphysics* E 1) may help us better understand the nature of that tension.

As I described the tension earlier it arises from, on the one hand, a pull in the direction of taking the subject matters of Plato’s and Aristotle’s respective projects to be relatively thin, universal, and abstract, and, on the other hand, a pull in the direction of taking the subject matters to be thick, specific, and concrete. These different pulls result, I think, from the desire on the part of both philosophers to understand the subject matters as primary or fundamental in two ways. For both Plato and Aristotle the subject matters of the master disciplines are ontologically and epistemologically prior. The first *aitiai* and first principles of these master disciplines are
necessary for the being and the knowledge of all other things. But, for both philosophers, the
subject matters are ontologically and epistemologically posterior in a way as well. That is, the
first aiτιαί and principles of these master disciplines are sufficient for the being and the
knowledge of all other things.82 The former pulls in the direction of thinness and universality,
e.g., Aristotle’s PNC, and the latter in the direction of thickness and specificity, e.g., Aristotle’s
unmoved mover. I do not know whether a project with such a subject matter is coherent.
Although, the fact that Aristotle continued to pursue it (as the similarity between the two projects
suggests) leads me to think that its incoherence is not a feature of sloppy writing, inept
editorship, or simple-minded philosophical thinking. The attempt to combine the ‘thin’ and
‘thick’ sides of being primary or fundamental is serious and intentional. It does, however, lead
me to wonder what such a project would be like.

82See, for example, (Politis 2004:26): “Two things, therefore, are characteristic of metaphysics as Aristotle
conceives it. First, it is the knowledge of first or ultimate explanations, explanations that are not themselves subject
to further explanation. Second, it is the explanatory knowledge of all things, i.e. knowledge that explains something
not only about some things, but about all things.”