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## Aristotle on Knowledge, Nous and the Problems of Necessary Truth

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SAGP Session at the Eastern APA 28 December 2001 Introduction. Traditional interpretations take *De Anima* III.5 (DA III.5.430a20-25) to be about different human cognitive functions, <sup>1</sup> or the immortality of the "productive intellect", taken either as the immortal part of the human mind or as God. <sup>2</sup> I argue, however, that different problems are at issue here, problems concerning our knowledge of necessary truths: First, in section 1, I show how *nous* is for Aristotle the solution to the famous regress dilemma raised in *Posterior Analytics* I.3, and in section 2, that knowledge <sup>3</sup> (*epistêmê*) and *nous* have necessary truths as their subject matter, and are, moreover, *the same as* this subject matter. In section 3, I show how Aristotle's position creates two problems concerning (1) the innateness of knowledge and *nous*, and (2) the mind-dependency of necessary truths. Finally, in section 4, I show that the end of DA III.5 reveals Aristotle's recognition of these problems and an attempt to solve them.

1. Aristotle defines knowledge for us as an "apodeictic hexis" (EN 6.3.1139b31-32). "Apodeictic" is the adjectival form of the Greek word for "proof"; Aristotle defines "proof" as being a special kind of syllogism --an "epistemic syllogism"-- "by virtue of which we know by having it" (AnPost. I.2.71b17-18). Thus, knowledge is a hexis that results between a cognizer and a proof possessed by that cognizer. More specifically, it is a hexis that exists between a cognizer and a conclusion with a proof from which that conclusion necessarily follows. Moreover, by Aristotle's definition of hexis (e.g., Meta. V.20.1022b4-8), such a cognizer does not have knowledge: one has a proof, not knowledge.

Aristotle's account of knowledge is clearly susceptible to the famous regress dilemma raised in *Posterior Analytics* I.3: "For some it does not seem that there is knowledge because of the requirement to know primary premises [ $ta\ pr\hat{o}ta$ ]; for others, that there is knowledge, but that there is, however, a proof of everything" (AnPost. I.3.72b5-7). The consequence of this dilemma

<sup>&</sup>lt;sup>1</sup>E.g., J. Barnes "Aristotle's Concept of Mind", Articles on Aristotle 4, ed. J. Barnes, M. Schofield, R. Sorabji (London: Duckworth, 1979), 39-41; M. Wedin, Mind and Imagination in Aristotle (New Haven: Yale University Press, 1988), 179-181; C. D. C. Reeve, Substantial Knowledge (Indianapolis: Hackett Publishing Co., 2000), 160-173.

E.g., V. Kal, On Intuition and Discursive Reasoning in Aristotle (Leiden: E.J. Brill, 1988), 88-91; V. Caston, "Aristotle's Two Intellects: A Modest Proposal", Phronesis XLIV/3 (1999), 210-215; M. Bowler, "Thinking, Thought and Nous in Aristotle's De Anima", Society for Ancient Greek Philosophy Newsletter 1999/2000.4 (March), 7-9.

It use the term "knowledge" and its variants as translating only "epistêmê" and its variants. All translations from the Greek are mine, unless indicated otherwise.

in Aristotle's view, if it is the case, is that knowledge seems impossible.

The dilemma runs as follows: (Horn 1) If there is only one way of knowing, namely by means of the possession of proofs, then one knows every premise in a proof only as conclusions of other proofs. Thus, (prong (i)) for every premise in a proof, there is a proof for that premise; moreover, each premise in that proof itself is the conclusion of another proof. However, it is impossible to complete an unlimited number of proofs. Therefore, if there is only one kind of knowledge, then knowledge is impossible. However, (prong (ii)) say this regress of proofs does come to a stop at some first premises or principles (arkhai). Since these first principles are themselves not the conclusions of proofs, they are not known. Therefore, if the proofs do in fact come to a stop at some first principles, knowledge is founded on something which is not known, but merely supposed (AnPost. I.3.72b14-15). However, it seems absurd that the conclusions of proofs would be known, but that the principles leading to those conclusions would not be known; therefore, if there is only one kind of knowledge and proofs come to a stop at some principles or first premises, then knowledge is impossible.

(Horn 2:) "On the other hand, others concur concerning what it is to know --that it is only through proof-- but that nothing prevents there being a proof of everything, that it is possible that a proof comes to be by a circle and from one another" (AnPost. I.3.72b15-18). With this horn, one accepts that there is only one kind of knowledge, namely by having a proof, but escapes prong (i) by claiming that it is possible that premises can be "mutually proving", i.e., proven either circularly or reflexively; by this claim one escapes prong (ii) by holding that all premises, even the first, are in fact proven. Thus, if circular or reflexive proofs are possible, then the existence of only one kind of knowledge poses no insuperable difficulties. However, Aristotle argues, circular or reciprocal proofs are impossible (AnPost. I.3.72b25-73a20); therefore, it seems, the existence of only one kind of knowledge poses insuperable difficulties.

From this summary it is clear that, for Aristotle, knowledge --epistêmê-- is strictly derivative knowledge: Epistêmê is necessarily dependent upon, is necessarily mediated by, proofs. If knowledge for Aristotle were either primary (simple, immediate, unmediated by proofs or

syllogisms) or *derivative* (complex, mediated by proofs), the dilemma just discussed could not have arisen: horn (1) could never have arisen, because there would be no infinite regress of proofs (prong (i)), nor unknown principles (prong (ii)), since there could be *knowledge* without proofs for these principles or premises; from there the impossibility of circular or reciprocal proofs from horn (2) poses no difficulty.

However, by definition, knowledge requires proofs, and is thereby strictly derivative. Assuming the arguments against circular and reflexive proofs are conclusive, Aristotle rescues his account of knowledge by rejecting the antecedent of the conditional that initiated the dilemma, namely that there is only one kind of knowledge, i.e., only derivative knowledge. He posits that there is also a kind which is primary, non-derivative and not the result of proofs. This kind he calls "nous", which is the "starting point [arkhê] of knowledge" (AnPost. I.3.72b23-25, 1.33.88b36). Nous is thereby the principles, or the first premises, of proofs. Aristotle states that "there will not be knowledge of the starting points, and since it is not possible that anything is more true than knowledge except nous, nous will be of the starting points... because there is no proof of the starting point of a proof, and therefore there is not knowledge of knowledge. If then we have no other kind [genos] which is true apart from knowledge, nous will be the starting point of knowledge" (AnPost. II.19.100b10-15). Nous stops the infinite regress of proofs in prong (i) of horn 1 by providing the starting points [arkhai] for proofs, and prevents the absurdity of prong (ii) from arising in that nous is "more true" or "better known" than knowledge by being true, yet simple and unmediated as opposed to complex and mediated. Thus, in Aristotle's view, nous -primary knowledge-- provides the "unit", so to speak, out of which knowledge is composed: "And as the starting point [arkhê] is simple in other cases, this [simple] is not the same everywhere, but in weight it is the mnâ, in song the diesis, something else in another, so in a syllogism the one is an unmediated premise, in proof and knowledge nous" (AnPost. I.23.84b37-85a1).

2. For Aristotle, the subject matter both of knowledge and of *nous* --derivative and primary knowledge-- has the characteristics of universality and impossibility of being otherwise, i.e., they

are necessary truths. He holds that "nous and knowledge are always true" (AnPost. II.19.100b7-8). For example, concerning knowledge, he states that "...knowledge is a subsumption [hypolêpsis] concerning the things which are universal, i.e., from necessity" (EN VI.6.1140b31; cf. AnPost 1.4.73b26-28). Something which is universal is "what belongs in all cases [kata pantos] both by virtue of itself [kath'hauto] and qua itself", in other words, what belongs "out of necessity" (AnPost. I.4.73b26-28). Aristotle confirms in many other places that what is knowable is necessarily true; e.g., "[s]ince it is impossible to be otherwise of what there is knowledge simpliciter, the thing which is knowable by virtue of apodeictic knowledge will be necessary" (AnPost. I.4.72b21-23). Concerning nous, nous is also about what is universal: "...the universal [is] from the particulars, one must have a perception of these [the universals], and this [perception] is nous" (EN VI.11.1143b4-5). Since nous is of universals and the starting point of knowledge, by definition nous is also of necessities: "If indeed the things by means of which [hois] we possess truth and never possess falsehood, concerning the things which it is not possible for them to be otherwise (or even those which it is possible), are knowledge and phronêsis and sophia and nous, and of the three [of these] it is not possible to be the case (the three I mean are knowledge, phronêsis and sophia), it follows that nous is of the starting points" [emphasis mine] (EN VI.6.1141a3-8). Thus clearly the subject matter of both knowledge and *nous* are necessary truths.

Aristotle holds that since the subject matter -- the truths-- of primary and derivative knowledge are necessary, this subject matter is *eternal* (*aidion*):

What knowledge is then, is thence clear, if one must reason exactly and not follow similarities. Everyone supposes what we know is not possible to be otherwise. ...Thus the thing which is knowable is from necessity. Thus it [what is knowable] is eternal [aidion]: the things which are from necessity all are eternal simpliciter, and things which are eternal are ungenerable [agenêta] and undegenerable [aphtharta]. (EN VI.3.1139b18-24)

According to this characterization, since the subject matter of *nous* and knowledge is necessarily true, this subject matter is eternal, and thence it is not possible that this subject matter undergoes generation or degeneration. Moreover, this eternality of the things of which we have primary and derivative knowledge explains how these things cannot be otherwise: They neither come to

be nor cease to be at any point in time, but in any epistemic or metaphysical circumstance are always the case.

Now for Aristotle, *nous* and knowledge also have the characteristic of being the same as their subject matter. "Knowledge actually [kat'energeian] is the same as [to... auto] its subject matter [tôi prâgmati]" (DA III.5.430a19-20, III.7.431a1-2). Aristotle subsequently confirms, more specifically, that knowledge is the same as its subject matter only qua form (eidos), with potential knowledge being the same as what is potentially knowable, and knowledge in actuality being the same as what is knowable in actuality:

Knowledge and perception [aisthêsis] are divided into their subject matters, the one [knowledge or perception] in potentiality into the things which are in potentiality, the other [knowledge or perception] in actuality into the things which are in actuality. The perceptive and epistemic parts of the soul are in potentiality the same --the latter, [as] the thing which is knowable, the former, [as] the thing which is perceptible-- and it is necessary they are the things themselves or the forms. Themselves certainly not (for there is no stone in the soul), but the form. (DA III.8.431b24-432a1)

This parallel between knowledge and perception --namely, both are necessarily the same as their subject matter qua form, either in potentiality or in actuality-- is similarly applied to nous and perception: Nous, primary knowledge, must be "receptive of the form [eidos] and such in potentiality, but not this, and be similar [homoiôs ekhein], as the perceptive in regard to [pros] what is perceptible, so nous in regard to the possible objects of nous [ta noêta]" (DA III.4.429a15-18). Later, Aristotle reaffirms that "...nous in potentiality is somehow the possible objects of nous [ta noêta], but nothing in actuality before one knows primarily [noêi]" (DA III.4.429b30-31). Since knowledge and nous --derivative and primary knowledge-- are of necessary truths, and knowledge and nous are, either in potentiality or in actuality, the same as the forms of their subject matter, knowledge and nous are the same as the forms of necessary truths. Moreover, since these necessary truths are eternal, the forms of these necessary truths are also eternal.

3. So, for Aristotle, knowledge and *nous* are of necessary truths, and what is necessarily true is always the case and cannot be otherwise; i.e., what is necessarily true is eternal. If something is eternal, it never comes to be, nor does it cease to be. Knowledge and *nous* are the

same as their subject matter *qua* form, either in potentiality or in actuality. Thus, knowledge and *nous* are eternal, either in potentiality or in actuality. Therefore, following Aristotle's account, knowledge and *nous* never come to be nor cease to be, either in potentiality or in actuality. So, if human beings know primarily or derivatively (in potentiality or in actuality), and knowledge and *nous* are eternal (in potentiality or in actuality), then human beings know either primarily or derivatively (in potentiality or in actuality) *eternally*. Thus, human beings somehow know, either primarily or derivatively, necessary truths innately.

This conclusion concerning *nous* and knowledge seems to entail two major interconnected problems. (Problem 1) Innate knowledge of any sort seems to imply that instruction and experience are unnecessary for obtaining knowledge or *nous*, and genuine forgetfulness of necessary truths is impossible. However, this implication clearly seems refuted by common sense: All of us seem *to have to* undergo instruction and many experiences in order to obtain primary or derivative knowledge. We *do* seem to forget what we know, and when we are asleep, intoxicated or are suffering the effects of aging we often cannot access, report or remember the knowledge or *nous* we had acquired previously. Moreover, children seem to have no primary or derivative knowledge at all, even though these things are supposedly somehow innate.

It thus seems more plausible that knowledge and *nous*, at least for human cognizers, are not somehow innate. However, (problem 2) if, as Aristotle holds, human cognizers know either primarily or derivatively, and knowledge and *nous* are things which come to be and to pass away, and knowledge and *nous* are the same as their subject matter (either in potentiality or in actuality), then the subject matter of these --necessary truths-- *come to be and pass away*. If necessary truths come to be and pass away, then necessary truths *are not* genuinely always the case --i.e., are not really necessary at all-- but are the case *only if someone is knowing them*, either derivatively or primarily.<sup>5</sup> For Aristotle, Plato and others, if this position is true, then genuine

<sup>&</sup>lt;sup>4</sup> This position is apparently endorsed by Plato; see e.g. *Meno* 80d-82a, 85b-86b.

This position is a variation of Protagoras' "Humanity is the measure of all things", i.e., of the view that knowledge is perception.

knowledge does not exist. Moreover, since *nous* and knowledge are the same as the forms of their subject matter, then the *forms* of this subject matter are mind-dependent. This conclusion seems absurd, for then the forms *of material things*, of which we have primary or derivative knowledge, will be mind-dependent, and therefore a kind of idealism will be true --one where if no one knew anything in any respect, the material world would not exist. In order to avoid this absurdity, one could posit an entity that was knowing actually the forms eternally, but this posit generates *its own* peculiar difficulties.

4. Aristotle now needs to resolve problems 1 and 2 in order for his account of *nous* and knowledge to work. In order to make this resolution, Aristotle makes a distinction that may be formulated as one between primary and derivative knowledge *in separation*, and primary and derivative knowledge *for us*. *De Anima* III.5.430a20-25 offers a brief but very important clue as to how Aristotle characterizes this distinction. In this passage he states:

Knowledge potentially is prior in time in one, but in general is not prior in time -not at times one knows primarily but at other times does not. Having been
separated it [(primary) knowledge] is just the very thing it is, and this [the very
thing it is] is simply deathless, i.e. eternal. We do not remember however
because, though this [(primary) knowledge] is impassive, passive primary
knowledge is phthartos. Also, without this [(primary) knowledge], one knows
nothing primarily.<sup>6</sup>

What Aristotle is saying here is first, we ourselves know potentially before we know actually; i.e., knowledge for us is potentially prior in time to actual knowledge, so when we are children, for example, we are potential knowers before we are actual knowers. However, knowledge potentially is not at all prior in time (or perhaps better, "is not in time in general") to knowledge actually, despite the fact we may actually know something primarily at one time, but not at another, perhaps due to intoxication or old age and the like. Thus, despite the fact that knowledge --primary or derivative-- appears to come to be and to pass away for us, knowledge

The translation of "all'oukh" as "--not" (or perhaps as "not even" if one reads "all'oud"" for "all'oukh") is called by Denniston the best rendering for this expression. See "alla" I.1.ii, p.2; also IV.2 for "all'oude", pp.23-24, in J.D. Denniston, The Greek Particles, 2nd. ed. (Indianapolis: Hackett Publishing Co., 1996).

I place "primary" in parentheses here, and use the generic term "knowledge" in my discussion of the text when necessary, because the grammar is unclear as to whether Aristotle is talking about knowledge in general (i.e., both primary and derivative knowledge), or primary knowledge specifically. Regardless, my subsequent discussion and arguments work for either reading.

essentially is not something which is mind-dependent, and therefore does not come to be nor pass away. This mind-independence of knowledge is grounded in Aristotle's position that what is actual is prior to what is potential, and consequently, actual knowledge is prior to potential knowledge: "it is clear that actuality [energeia] is more prior than potentiality [dunamis]. ... Actuality is more prior than every such potentiality, both in logos and in ousia; in time it is so in one way, not so in another" (Meta. IX.8.1049b4-5,10-12). In other words, if actual knowledge did not exist prior to potential knowledge in logos, ousia and time by nature, potential knowledge for us would not exist --a claim which Aristotle expresses in the final sentence of this passage from DA III.5: "Also, without this [(primary) knowledge], one knows nothing primarily". So, when (primary) knowledge has been considered in separation from any human cognizer, it alone is simply what it is --knowledge essentially-- and this knowledge (as discussed in section 2) is eternal, deathless and insusceptible to either generation or degeneration. Thus, the necessity of the subject matter of knowledge and nous --and thus the possibility of knowledge itself-- is preserved, and in general Aristotle resolves problem 2.

Aristotle now needs to resolve problem 1, and his argument for doing this is intimated with the phrase from *De Anima* III.5 above: "Passive primary knowledge is *phthartos*". Since knowledge in separation is eternal and insusceptible to generation or degeneration, it does not change, and is thereby impassive, despite the fact we sometimes know primarily but at other times do not. However, in contrast with this impassivity of knowledge *in separation*, we do not remember this knowledge, for example, because "passive nous is phthartos". Nous --the starting point of knowledge, primary necessary truths-- for us is passive and phthartos.

The term "phthartos" is typically translated "perishable" and the like; earlier I translated "aphthartos" as "undegenerable". These translations, however, perhaps do not fully clarify the phrase at hand. For example, in the Posterior Analytics, Aristotle makes the following claim:

It is clear also if the premises are universal, out of which the syllogism [is constructed], that it is necessary both the conclusion of such a proof is eternal, and states a proof *simpliciter*. Thus there is not a proof nor knowledge *simpliciter* of things which are *phthartos*, but in a manner like *kata sumbebêkos*, because it is

not in accordance with its whole [kath'holou], but [is] sometime and somehow. Whenever it is the case, it is necessary that the other premise is not universal and phthartên --phthartên because the conclusion will also be when it is the case, but not universal because it will be the case for something but will not be the case for that thing overall-- therefore it is not to be syllogized universally, but that [it is the case] now. (AnPost. I.8. 75b21-30)

On important aspect of this passage is Aristotle's use of the term "phthartos". Here he is classifying two kinds of syllogisms and their conclusions according to two kinds of premises. Premises which are universal result in conclusions --and thence syllogisms-- which are universal. Since the conclusion is universal, it is eternal and knowable. However, when premises have things which are phthartos for their subject matter, the syllogisms out of which these are constructed are not proofs simplicter, and the possession of such a proof does not result in knowledge simplicter, but in something akin to knowing incidentally or accidentally. Conclusions of such syllogisms do not cover the whole or the entirety of the subject matter --i.e., are not universal-- because the conclusion contains in it, either implicitly or explicitly, a reference to a particular time and to a particular manner.

For example, Aristotle calls not only the subject matter of premises or conclusions phthartos, but also premises, for example at Posterior Analytics I.8. If a premise is phthartê, the conclusion of a syllogism, in which such a premise appears, is the case only if that premise is the case; i.e., since the premise contains, by definition of being phthartê, reference to time and to manner, the conclusion is the case only if it contains that same time and that same manner. Moreover, such a premise, and the resultant conclusion, will not be universal because the syllogism does not hold in accordance with the whole of the subject matter at hand, regardless of circumstances, but with only that subject matter in conformity to the indicated time and manner. Thus, such a syllogism holds now, but not universally; i.e., not over all nows, not eternally.

From these considerations I conclude it is plausible that the term "phthartos" for Aristotle is better translated as "contingent", as opposed to "perishable", in at least some instances, as in the passage from Posterior Analytics I.8. Moreover, I hold that understanding "phthartos" as meaning "contingent" in Aristotle's description of nous for us, in the passage from De Anima III.5 above, is

better for clarifying his position there. So, the clue to Aristotle's resolution of problem 1, and the complete translation of the phrase at issue, is "passive primary knowledge is contingent". Now one can interpret this phrase as meaning either (i) that primary knowledge for us is contingent, but in separation is necessary, or (ii) that the fact that we know is contingent, but what we know is necessary.

Interpretation (i) seems to entail that primary knowledge in *intensional* contexts --primary knowledge for us-- is strictly contingent and explicitly or implicitly contains a reference to a particular time or manner, whereas primary knowledge in separation is extensional, and as such is strictly necessary. So if (i) is the case, then for example, if I know primarily that every number is divisible by itself, then this truth for me is contingent (since it occurs in an intensional context, and perhaps contains an implicit reference to a "now"), despite the fact that this truth in separation --i.e., extensionally-- is necessary. This interpretation seems clearly to resolve problem 1: The generation and degeneration of knowing intensionally, or of contingent truths, poses no problem, for they are clearly dependent on certain times and certain circumstances. Moreover, there is no need with (i) for innate knowledge, either potential or actual, and Aristotle avoids all of the problems concerning innate knowledge and the possible need for an eternally knowing thing. However, interpretation (i) seems to result in a kind of skepticism that Aristotle does not seem to endorse elsewhere: By (i), all items of knowledge for us are contingent, and we apparently have no means, epistemic or otherwise, for distinguishing between contingent and necessary truths. As well, (i) now appears to make modality, as opposed to knowledge, minddependent, and results in the paradox that primary necessary truths are contingent when we know them primarily. This result also seems to contravene the necessity of knowledge being the same as its subject matter, as discussed in section 3.

Interpretation (ii) seems to avoid the problems of (i). Clearly, it is correct that *the fact that* we know actually is a contingent matter: our knowing is dependent upon certain circumstances and times, and we do not remember primary necessary truths, for example, because these circumstances and times are not satisfied. Moreover, with (ii), it seems we can have primary

knowledge of the necessity of necessary truths, the modality of truths is not mind-dependent and does not change between intensional and extensional contexts, and primary necessary truths remain necessary whether we know them or not. Thus, I hold that interpretation (ii) is more plausible. However, in order to reconcile with interpretation (ii) with Aristotle's resolution that knowledge in separation is impassive and eternal, it seems required that Aristotle claim that we do in fact have innate *potential* primary knowledge --but not the implausible claim of innate *actual* primary knowledge-- which, having been affected somehow by contingent circumstances, becomes actual, conscious primary knowledge.

This claim of innateness needs to be reconciled with the common-sense objections raised with problem 1. I hold Aristotle does attempt to achieve this reconciliation (thereby supporting my claim that interpretation (ii) is correct) by arguing that although potential *nous* and knowledge are for us innate in the *psykhê*, since the *psykhê* must inhere in some body, *this inherence in a body*, this passivity, is what makes the possession of actual *nous* and knowledge contingent, and explains issues like forgetfulness, the inaccessibility of knowledge in certain circumstances, and so on. For example, Aristotle states:

Nous seems like an ousia that is innate and is not destroyed. ...Both the knowing primarily [to noein] in fact and the to be knowing primarily [to theôrein] decay away by some other thing degenerating inside, but is itself impassive. To think, to love and to hate are not affections [pathê] of that [to noein], but of that thing which has that [to noein].... On account of this also, when this degenerates one neither remembers nor loves, for it was not of that, but of the thing which is common, that has been destroyed: nous perhaps is something more divine and impassive. (DA I.4.408b18-29)

Aristotle avoids the objections of innate knowledge stated in problem 1 by holding that it is not, in fact, our primary or derivative knowledge that comes to be and passes away --e.g., is forgotten, becomes inaccessible-- but the vehicle, the body in which this primary and derivative knowledge inheres, is passive, generable and degenerable, and is the thing which is affected by certain circumstances at certain times. This generation or degeneration of the body has the accidental effect of making our knowledge apparently change, despite remaining essentially necessary and impassive. Thus, by characterizing primary knowledge for us, but not in separation, as passive

and contingent, Aristotle resolves both problems 2 and 1 of section 3.

Conclusion. Aristotle's position concerning impassive necessary truths, which are innate in potentiality for us but requisitely inhere in a certain kind of passible, perishable body, creates its own set of difficulties. Surviving fragments from Theophrastus, Aristotle's pupil and successor, attest that he was aware of these difficulties. For example, Theophrastus states:

How can [potential] primary knowledge, being from without and as if added, still be innate? And what is its nature? ....How can [potential primary knowledge] become the things which are knowable primarily, and what is it to be affected by them? For this must be so if it is going to come to actuality just as perception does. But what affection is there for an incorporeal through the action of an incorporeal? What kind of change is this? And is the source [of the change] derived from the [primarily knowable] or from the [potential primary knowledge]? (Frag. 1a)

Other issues raised in problem 1 in section 3, and issues concerning Aristotle's account of innate potential knowledge inhering in a body, also troubled Theophrastus. As well, Aristotle may have held, like Plotinus, that *there is* in fact something which is actually knowing the forms of necessary truths eternally, and that the forms existing in the material world are dependent upon this knower, a possibility mentioned in problem 2 in section 3. There are many other matters and problems that require further exploration and resolution in detail in order to fully understand Aristotle's account of necessary truth, *nous* and *epistêmê*, like his account of instruction and the role of various components of our cognitive psychology involved in knowing. However, by the succinct, preliminary account of *nous*, knowledge and necessary truth offered here, of the problems this account produces, and of Aristotle's solutions to these problems, this exploration and resolution, I hope, has been made a little easier.

Quoted by Themistius in *Paraphrase of De Anima 3.4-8* (107.31-108.1), from *Two Greek Aristotelian Commentators on the Intellect*, trans. F.M. Schroeder and R.B. Todd (Toronto: Pontifical Institute of Medieval Studies, 1990). I have modified their translation. Theophrastus' questions indicate that Aristotle's theory of innate potential knowledge is much more problematic that some take it to be, e.g., J. Barnes on *AnPost*. II.19 in *Aristotle's Posterior Analytics*, Claredon Aristotle Series, ed. J.L. Ackrill (Oxford: Oxford University Press, 1993).