Epistemic and pragmatic approaches to deduction in Aristotle

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T1: *Topics* 1.1, 100a25–b26

[i] A deduction, then, is an argument in which, when certain things are laid down, something else different from the things posited results of necessity through them. Demonstration comes about when a deduction is made either from true and first premisses or from such things as those through which one obtains the principle of knowledge about true and first premisses. A dialectical deduction is one made upon the basis of acceptable premisses (Top. 1.1.100a25–30).

[i] Ἔστι δὴ συλλογισμὸς λόγος **ἐν ᾧ τεθέντων τινῶν** ἕτερόν τι τῶν κειμένων ἐξ ἀνάγκης συμβαίνει διὰ **τῶν κειμένων**. **ἀπόδειξις** μὲν οὖν ἐστιν, ὅταν **ἐξ ἀληθῶν καὶ πρώτων** ὁ συλλογισμὸς ᾖ, ἢ ἐκ τοιούτων ἃ διά τινων πρώτων καὶ ἀληθῶν τῆς περὶ αὐτὰ γνώσεως τὴν ἀρχὴν εἴληφεν, **διαλεκτικὸς** δὲ συλλογισμὸς ὁ **ἐξ ἐνδόξων** συλλογιζόμενος (Top. 1.1.100a25–30).

> The notion of συλλογισμός serves to cover deduction in different contexts: one in which the premisses are "true and primary", another in which the premisses are "acceptable". Deductions from true premisses belong to a particular (demonstrative) context; τεθέντων and κειμένων here simply mean "accepted". This is born out by the fact that A. now proceeds to distinguish in what way the premisses are accepted in these two contexts of argumentation.

[ii] Those premisses are true and first which do not derive their trustworthiness through other things but through themselves, for it is not necessary to further require the wherefore in principles of knowledge, but each of the principles is, of itself, worthy of trust. Acceptable premisses are those things which seem true to all, or the majority, or the wise, and among these last to all, or a majority, or those most known and distinguished.

[ii] ἔστι δὲ ἀληθῆ μὲν καὶ πρῶτα τὰ μὴ δι' ἑτέρων ἀλλὰ δι' αὑτῶν ἔχοντα τὴν πίστιν (οὐ δεῖ γὰρ ἐν ταῖς ἐπιστημονικαῖς ἀρχαῖς ἐπιζητεῖσθαι τὸ διὰ τί, ἀλλ' ἑκάστην τῶν ἀρχῶν αὐτὴν καθ' ἑαυτὴν εἶναι πιστήν), ἔνδοξα δὲ τὰ δοκοῦντα πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς, καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις καὶ ἐνδόξοις.

[iii] An eristic deduction is one from premisses which seem to be acceptable but which are not, or one which merely seems to be a deduction from acceptable or merely acceptable-seeming premisses. None of the premisses which are said to be acceptable has a thoroughly superficial likelihood, for the nature of the falsehood in them becomes completely clear, at least for the most part, to those who are able to discern also nuances.

[iii] ἐριστικὸς δ' ἐστὶ συλλογισμὸς ὁ ἐκ **φαινομένων ἐνδόξων μὴ ὄντων δέ**, καὶ ὁ ἐξ ἐνδόξων ἢ φαινομένων ἐνδόξων φαινόμενος· **οὐ γὰρ πᾶν τὸ φαινόμενον ἔνδοξον καὶ**

ἔστιν ἔνδοξον. οὐθὲν γὰρ τῶν λεγομένων ἐνδόξων ἐπιπόλαιον ἔχει παντελῶς τὴν φαντασίαν, καθάπερ περὶ τὰς τῶν ἐριστικῶν λόγων ἀρχὰς συμβέβηκεν ἔχειν· παραχρῆμα γὰρ καὶ ὡς ἐπὶ τὸ πολὺ τοῖς καὶ μικρὰ συνορᾶν δυναμένοις κατάδηλος ἐν αὐτοῖς ἡ τοῦ ψεύδους ἐστὶ φύσις.

> The notion of συλλογισμός also covers eristic deduction, deduction in a context where premisses manage to get accepted on the basis of true-seeming but not really acceptable premisses. This too is a characterization of the means by which premisses get entered in a context of argumentation.

T2: *Rhetoric* 1.2, 1358a2–26.

[i] Among enthymemes, there is a great difference which completely escapes just about everyone's notice, though it also holds for the dialectical method of argumentation. For some enthymemes belong to rhetoric and are also made according to the dialectical method of argumentation, others are made according to other disciplines and faculties, be they known or not yet grasped. Thus the more the speakers touch upon a topic, the more they diverge and transgress the limits of rhetorical and dialectical argumentation – without the notice of their listeners. This will become clearer if stated at more length.

[i] τῶν δὲ ἐνθυμημάτων μεγίστη διαφορὰ καὶ μάλιστα λεληθυῖα σχεδὸν παρὰ πᾶσίν ἐστιν ἥπερ καὶ περὶ τὴν διαλεκτικὴν μέθοδον τῶν συλλογισμῶν· **τὰ μὲν γὰρ αὐτῶν ἐστι κατὰ τὴν ῥητορικὴν ὥσπερ καὶ κατὰ τὴν διαλεκτικὴν μέθοδον τῶν συλλογισμῶν, τὰ δὲ κατ' ἄλλας τέχνας καὶ δυνάμεις, τὰς μὲν οὔσας τὰς δ' οὔπω κατειλημμένας·** διὸ καὶ λανθάνουσίν τε τοὺς ἀκροατὰς καὶ [μᾶλλον] ἁπτόμενοι κατὰ τρόπον μεταβαίνουσιν ἐξ αὐτῶν. μᾶλλον δὲ σαφὲς ἔσται τὸ λεγόμενον διὰ πλειόνων ῥηθέν.

> Here the notion of ἐνθύμημα also covers deduction in different contexts. The contexts are distinguished differently than in T1. Here the contrast is between dialectical-rhetorical and "technical" argumentation, and is made with a view to a distinction between levels of generality of the premisses of the deduction. This distinction is expressed in terms of *topoi* and *protaseis*. Arguments from *topoi* are not bound to subject areas and do not produce knowledge; arguments from *protaseis* are bound to subject areas and "make one more knowledgeable".

[ii] **By dialectical and rhetorical deductions I mean the ones for which we use *topoi*.** These are the common argument-patterns about what is just, about natural things, about politics, and about many things which differ in kind, for example from the the *topos* of the more and less. For it will be possible to furnish a deduction or an enthymeme from this *topos* equally well concerning justice or natural things or any kind of thing; but all of these differ in kind. **Specific arguments are those based on premisses concerning species and genus**, for example there will be neither an enthymeme nor a deduction about ethical matters upon the basis of premisses about natural things, and concerning ethical things there are other premisses which will not furnish arguments concerning natural things: the same holds good in all cases.

[ii] **λέγω γὰρ διαλεκτικούς τε καὶ ῥητορικοὺς συλλογισμοὺς εἶναι περὶ ὧν τοὺς τόπους λέγομεν·** οὗτοι δ' εἰσὶν οἱ κοινοὶ περὶ δικαίων καὶ φυσικῶν καὶ περὶ πολιτικῶν

καὶ περὶ πολλῶν διαφερόντων εἴδει, οἷον ὁ τοῦ μᾶλλον καὶ ἧττον τόπος· οὐδὲν γὰρ μᾶλλον ἔσται ἐκ τούτου συλλογίσασθαι ἢ ἐνθύμημα εἰπεῖν περὶ δικαίων ἢ περὶ φυσικῶν ἢ περὶ ὁτουοῦν· καίτοι ταῦτα εἴδει διαφέρει. **ἴδια δὲ ὅσα ἐκ τῶν περὶ ἕκαστον εἶδος καὶ γένος προτάσεών ἐστιν**, οἷον περὶ φυσικῶν εἰσι προτάσεις ἐξ ὧν οὔτε ἐνθύμημα οὔτε συλλογισμὸς ἔστι περὶ τῶν ἠθικῶν, καὶ περὶ τούτων ἄλλαι ἐξ ὧν οὐκ ἔσται περὶ τῶν φυσικῶν· ὁμοίως δὲ τοῦτ' ἔχει ἐπὶ πάντων.

[iii] **And those (rhetorical and dialectical arguments) will not make one more knowledgeable with respect to the genus**, for they concern no underlying [genus]. And the better one chooses premisses, the more one will engage in a form of knowledge different from dialectic and rhetoric, for if one hits upon principles, the business at hand is no longer dialectic or rhetoric, but another discipline, the one which has the principles [invoked].

[iii] **κἀκεῖνα μὲν οὐ ποιήσει περὶ οὐδὲν γένος ἔμφρονα**· περὶ οὐδὲν γὰρ ὑποκείμενόν ἐστιν· ταῦτα δὲ ὅσῳ τις ἂν βέλτιον ἐκλέγηται [τὰς προτάσεις], λήσει ποιήσας ἄλλην ἐπιστήμην τῆς διαλεκτικῆς καὶ ῥητορικῆς· ἂν γὰρ ἐντύχῃ ἀρχαῖς, οὐκέτι διαλεκτικὴ οὐδὲ ῥητορικὴ ἀλλ' ἐκείνη ἔσται ἧς ἔχει τὰς ἀρχάς.

T3: *Topics* 1.10, 104a3–23.

[i] First, then, let us distinguish what a dialectical proposition is and what a dialectical problem is. One should not posit every proposition and every problem as dialectical, for no one with sense would offer up something which seems true to nobody for acceptance, or challenge what is evident to all or the majority: the latter bring with them no difficulty, and no one would make the former premisses.

[i] Πρῶτον τοίνυν διωρίσθω τί ἐστι πρότασις διαλεκτικὴ καὶ τί πρόβλημα διαλεκτικόν. οὐ γὰρ πᾶσαν πρότασιν οὐδὲ πᾶν πρόβλημα διαλεκτικὸν θετέον· οὐδεὶς γὰρ ἂν προτείνειε νοῦν ἔχων τὸ μηδενὶ δοκοῦν οὐδὲ προβάλοι τὸ πᾶσι φανερὸν ἢ τοῖς πλείστοις· τὰ μὲν γὰρ οὐκ ἔχει ἀπορίαν, τὰδ' οὐδεὶς ἂν θείη.

[ii] A dialectical premiss is, then, the asking of something which is acceptable to all, or the majority, or the wise, and of these either all, or the majority, or those who are most recognized – as long as it does not go against expectation. For one may posit what seems true to the wise if it is not opposed to the opinions of the majority. **Dialectical premisses also include things which are similar to acceptable premisses, and the negation of the contrary to things which seem to be acceptable, as well as all the views derived from established disciplines.**

[ii] ἔστι δὲ πρότασις διαλεκτικὴ ἐρώτησις ἔνδοξος ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς σοφοῖς, καὶ τούτοις ἢ πᾶσιν ἢ τοῖς πλείστοις ἢ τοῖς μάλιστα γνωρίμοις, μὴ παράδοξος· θείη γὰρ ἄν τις τὸ δοκοῦν τοῖς σοφοῖς, ἐὰν μὴ ἐναντίον ταῖς τῶν πολλῶν δόξαις ᾖ. εἰσὶ δὲ **προτάσεις διαλεκτικαὶ καὶ τὰ τοῖς ἐνδόξοις ὅμοια, καὶ τἀναντία τοῖς δοκοῦσιν ἐνδόξοις εἶναι, κατ' ἀντίφασιν προτεινόμενα, καὶ ὅσαι δόξαι κατὰ τέχνας εἰσὶ τὰς εὑρημένας.**

[iii] For if it is acceptable that the knowledge of contraries is the same, then it would appear to be acceptable that perception of contraries is the same. And if the skill of reading is numerically one, then so is the skill of flute-playing, but if there are many skills of reading, then there are many skills of flute-playing. And similarly the things which are contrary to

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what is acceptable seem acceptable when negated, for if it is acceptable that it is necessary to treat friends well, then it is also acceptable that one must not treat them badly.

[iii] εἰ γὰρ ἔνδοξον τὸ τὴν αὐτὴν εἶναι τῶν ἐναντίων ἐπιστήμην, καὶ τὸ αἴσθησιν τὴν αὐτὴν εἶναι τῶν ἐναντίων ἔνδοξον ἂν φανείη· καὶ εἰ μίαν ἀριθμῷ γραμματικὴν εἶναι, καὶ αὐλητικὴν μίαν, εἰ δὲ πλείους γραμματικάς, καὶ αὐλητικὰς πλείους· πάντα γὰρ ὅμοια καὶ συγγενῆ ταῦτ' ἔοικεν εἶναι. ὁμοίως δὲ καὶ τὰ τοῖς ἐνδόξοις ἐναντία, κατ' ἀντίφασιν προτεινόμενα, ἔνδοξα φανεῖται· εἰ γὰρ ἔνδοξον ὅτι δεῖ τοὺς φίλους εὖ ποιεῖν, καὶ ὅτι οὐ δεῖ κακῶς ποιεῖν ἔνδοξον.

> The notion of ἔνδοξον is normative and extends beyond the class of things which are explicitly accepted. Premisses may be ἔνδοξα because they are accepted (by all, the majority, the wise, et cet.), but that does not exhaust the ways in which some premiss may be acceptable. The notion of ἔνδοξα also extends to norms of assertibility.

T4: *Topics* 6.10, 148b16–22

Again if someone, having defined something which is said in many ways, and if the definition is not applicable to all the cases, denies that the *definiendum* is a homonym, and denies that the name can be extended to all (since the definition cannot be), then one should say to such a person: it is fitting to employ established and current usage and not innovate in this way, even if in some things one should not speak in the same way as the majority.

πάλιν εἴ τις, ὁρισάμενός τι τῶν πολλαχῶς λεγομένων, καὶ τοῦ λόγου μὴ ἐφαρμόττοντος ἐπὶ πάντα, ὅτι μὲν ὁμώνυμον μὴ λέγοι, τὸ δ' ὄνομα μὴ φαίη ἐπὶ πάντα ἐφαρμόττειν, ὅτι οὐδ' ὁ λόγος, ῥητέον πρὸς τὸν τοιοῦτον ὅτι **τῇ μὲν ὀνομασίᾳ** δεῖ χρῆσθαι **τῇ παραδεδομένῃ καὶ παρεπομένῃ** καὶ μὴ κινεῖν τὰ τοιαῦτα, ἔνια δ' οὐ λεκτέον ὁμοίως τοῖς πολλοῖς.

T5: *Prior Analytics* 2.11, 62a11–19

It is clear, then, that in all deductions one must posit the contradictory and not the contrary. For in this way the principle will be both necessary and acceptable. For if the statement or denial is universal, then if it is shown that the denial does not hold, it is necessary that the affirmation is truly stated. **Again, if one does not posit that the affirmative statement is truly stated, then it is acceptable to lay down the negated statement.** It is not fitting to lay down the contrary in either way, for it is not necessary that, if it is false for none, it be true for each, nor is it acceptable that if the one is false the other will be true.

Φανερὸν οὖν ὅτι οὐ τὸ ἐναντίον ἀλλὰ τὸ ἀντικείμενον ὑποθετέον ἐν ἅπασι τοῖς συλλογισμοῖς. **οὕτω γὰρ τό τε ἀναγκαῖον ἔσται καὶ τὸ ἀξίωμα ἔνδοξον.** εἰ γὰρ κατὰ παντὸς ἡ φάσις ἢ ἡ ἀπόφασις, δειχθέντος ὅτι οὐχ ἡ ἀπόφασις, ἀνάγκη τὴν κατάφασιν ἀληθεύεσθαι. πάλιν εἰ μὴ τίθησιν ἀληθεύεσθαι τὴν κατάφασιν, **ἔνδοξον** τὸ ἀξιῶσαι τὴν ἀπόφασιν. τὸ δ' ἐναντίον οὐδετέρως ἁρμόττει ἀξιοῦν· οὔτε γὰρ ἀναγκαῖον, εἰ τὸ μηδενὶ ψεῦδος, τὸ παντὶ ἀληθές, οὔτ' **ἔνδοξον** ὡς εἰ θάτερον ψεῦδος, ὅτι θάτερον ἀληθές.

Aristotle here explains that in order to generate an entailment from an opposition, one must have a contradictory opposition, not a contrary one. The entailment relation is created in a situation in which the truth of an assertion in a contradictory pair of statements is not granted (εἰ μὴ τίθησιν). In this argumentation situation, it is "acceptable" to demand the negation as a premiss (ἀξιῶσαι). The use of the notion ἔνδοξον indicates attention to a pragmatic feature of inference.

T6: *Topics* 1.18, 108a18–26

Having studied the many ways in which something is said is useful for clarity, for you will know better what you are positing as a premiss if it is already clear in how many ways it is said. **It is also useful for having deductions come about according to the matter under discussion and not with a view to the word.** For if it is unclear in how many ways something is said, it is possible that the answerer and the questioner do not intend the same thing. **But if it is already clear how many ways something is said, and someone makes a posit in using one of these senses, the questioner who fails to apply his argument to this sense will seem ridiculous.**

Χρήσιμον δὲ τὸ μὲν ποσαχῶς λέγεται ἐπεσκέφθαι πρός τε τὸ σαφές (μᾶλλον γὰρ ἄν τις εἰδείη τί τίθησιν, ἐμφανισθέντος ποσαχῶς λέγεται) **καὶ πρὸς τὸ γίνεσθαι κατ' αὐτὸ τὸ πρᾶγμα καὶ μὴ πρὸς τὸ ὄνομα τοὺς συλλογισμούς·** ἀδήλου γὰρ ὄντος ποσαχῶς λέγεται, ἐνδέχεται μὴ ἐπὶ ταὐτὸν τόν τε ἀποκρινόμενον καὶ τὸν ἐρωτῶντα φέρειν τὴν διάνοιαν· **ἐμφανισθέντος δὲ ποσαχῶς λέγεται καὶ ἐπὶ τί φέρων τίθησι, γελοῖος ἂν φαίνοιτο ὁ ἐρωτῶν, εἰ μὴ πρὸς τοῦτο τὸν λόγον ποιοῖτο.**

> The study of ambiguity helps to prevent against deductions which "come about according to the word". When the many senses of a term have been made evident, those who deviate from the sense under consideration will seem ridiculous. Seeming ridiculous is a salient normative and pragmatic feature of dialectical argumentation: it makes certain strategies (in this case: equivocation) unacceptable. When the multiple meanings of terms have been shown, statements which equivocate on the meanings of those terms are no longer dialectically assertible.

T7: *Topics* 1.18, 108a26–37

[Studying the many ways in which things are said] is useful both for avoiding making deductions from false premises, and for making them.** For if we know how many ways something is said, we will not make deductions from false premises, but we will know if the questioner does not make the argument with regard to the same thing. And when we ourselves are questioning, we will be able to make false deductions, unless the answerer happens to know in how many senses something is said. But this is not possible in all cases, only in those when some of the things said in many senses are true, and some are false. And this mode of argumentation is not appropriate to dialectic. Dialecticians should beware of this sort of argumentation – arguing with regard to the word – and engage in it only if they are unable to argue about the matter at hand in any other way.

χρήσιμον δὲ καὶ πρὸς τὸ μὴ παραλογισθῆναι καὶ πρὸς τὸ παραλογίσασθαι. εἰδότες γὰρ ποσαχῶς λέγεται οὐ μὴ παραλογισθῶμεν, ἀλλ' εἰδήσομεν ἐὰν μὴ πρὸς τὸ αὐτὸ τὸν λόγον ποιῆται ὁ ἐρωτῶν· αὐτοί τε ἐρωτῶντες δυνησόμεθα παραλογίσασθαι,

ἐὰν μὴ τυγχάνῃ εἰδὼς ὁ ἀποκρινόμενος ποσαχῶς λέγεται. τοῦτο δ' οὐκ ἐπὶ πάντων δυνατόν, ἀλλ' ὅταν ᾖ τῶν πολλαχῶς λεγομένων τὰ μὲν ἀληθῆ τὰ δὲ ψευδῆ. ἔστι δὲ οὐκ οἰκεῖος ὁ τρόπος οὗτος τῆς διαλεκτικῆς· διὸ παντελῶς εὐλαβητέον τοῖς διαλεκτικοῖς τὸ τοιοῦτον, τὸ πρὸς τοὔνομα διαλέγεσθαι, ἐὰν μή τις ἄλλως ἐξαδυνατῇ περὶ τοῦ προκειμένου διαλέγεσθαι.

> The use of deductions from false premisses, παραλογίσασθαι, is explicitly admitted to the repertoire of dialectical argumentation here.

T8: *Posterior Analytics* 1.6, 74b18–26

There is a sign that demonstration is from necessary premisses: this is how we make objections to those who think they are engaged in demonstration, namely by saying that it is not necessary if we think that it can be otherwise, either on the whole or with respect to the argument. And it is clear from this that those who think to nicely win their principles if some premiss is acceptable and true, as when the sophists assumed that knowing is having knowledge, were naïve. **For us, not what is acceptable is a principle, but the first part of the genus which the demonstration concerns. And not every true statement is pertinent.**

σημεῖον δ' ὅτι ἡ ἀπόδειξις ἐξ ἀναγκαίων, ὅτι καὶ τὰς ἐνστάσεις οὕτω φέρομεν πρὸς τοὺς οἰομένους ἀποδεικνύναι, ὅτι οὐκ ἀνάγκη, ἂν οἰώμεθα ἢ ὅλως ἐνδέχεσθαι ἄλλως ἢ ἕνεκά γε τοῦ λόγου. δῆλον δ' ἐκ τούτων καὶ ὅτι εὐήθεις οἱ λαμβάνειν οἰόμενοι καλῶς τὰς ἀρχάς, ἐὰν ἔνδοξος ᾖ ἡ πρότασις καὶ ἀληθής, οἷον οἱ σοφισταὶ ὅτι τὸ ἐπίστασθαι τὸ ἐπιστήμην ἔχειν. **οὐ γὰρ τὸ ἔνδοξον ἡμῖν ἀρχή ἐστιν, ἀλλὰ τὸ πρῶτον τοῦ γένους περὶ ὃ δείκνυται· καὶ τἀληθὲς οὐ πᾶν οἰκεῖον.**

T9: *Posterior Analytics* A 19, 81b10–23.

Every deduction comes about through three terms. One type of deduction is able to show that A belongs to C on account of A's belonging to B and B's belonging to C. The other type of deduction is privative: namely the type in which one premiss states that something belongs to something else, and the other premiss states that something does not belong (to something else). It is clear, then, that the principles and so-called posits are these: for it is necessary to assume these to be so in order to make demonstration. For example, that A belongs to C through B and again that A belongs to B through another middle term, and that B belongs to C in just the same way. It is clear that, for the ones who argue according to opinion and exclusively dialectically, one should look only to this: namely whether the deduction comes about from premisses which are as acceptable as possible, so that even if B is not, in some way, in truth a middle term for the A, but seems to be, the argument made through this term has been made dialectically. With a view to the truth, however, one must examine how these things really hold.

Ἔστι δὲ πᾶς συλλογισμὸς διὰ τριῶν ὅρων, καὶ ὁ μὲν δεικνύναι δυνάμενος ὅτι ὑπάρχει τὸ Α τῷ Γ διὰ τὸ ὑπάρχειν τῷ Β καὶ τοῦτο τῷ Γ, ὁ δὲ στερητικός, τὴν μὲν ἑτέραν πρότασιν ἔχων ὅτι ὑπάρχει τι ἄλλο ἄλλῳ, τὴν δ' ἑτέραν ὅτι οὐχ ὑπάρχει. φανερὸν οὖν ὅτι **αἱ μὲν ἀρχαὶ καὶ αἱ λεγόμεναι ὑποθέσεις αὗταί εἰσι·** λαβόντα γὰρ ταῦτα οὕτως ἀνάγκη δεικνύναι, οἷον ὅτι τὸ Α τῷ Γ ὑπάρχει διὰ τοῦ Β, πάλιν δ' ὅτι τὸ Α τῷ Β δι' ἄλλου μέσου, καὶ ὅτι τὸ Β τῷ Γ ὡσαύτως. κατὰ μὲν οὖν δόξαν συλλογιζομένοις καὶ μόνον διαλεκτικῶς δῆλον ὅτι τοῦτο μόνον σκεπτέον, εἰ ἐξ ὧν ἐνδέχεται ἐνδοξοτάτων γίνεται ὁ συλλογισμός, ὥστ' εἰ καὶ μὴ ἔστι τι τῇ ἀληθείᾳ τῶν Α Β μέσον,

δοκεῖ δὲ εἶναι, ὁ διὰ τούτου συλλογιζόμενος συλλελόγισται διαλεκτικῶς· πρὸς δ' ἀλήθειαν ἐκ τῶν ὑπαρχόντων δεῖ σκοπεῖν.

T10: Plato, Republic VI, 507b2–11.

We claim that there are several individual good and fine things, I said, and we determine them through definition. – We do so claim. – But we also define the good itself and the fine itself, and so on for all the things which we posited as many. And in the other direction (πάλιν αὖ), making posits (τιθέντες) according to the single idea of each, which really is one, we say what each of them is . – This is so. – And we say that we see the one sort of thing, but do not grasp them with the mind, whereas we do grasp the ideas with the mind, but do not see them. – Absolutely.

T11: Plato, Republic VI, 510b2–10.

Consider now the way in which we must divide the realm of the intelligible. – How? – In the way that the soul is forced to study one part of it by using the things which were imitations as paradigms, on the basis of several assumptions, going not to the beginning but to the end. The other part of it – the one which goes to the beginning that is without an assumption – the soul approaches on the basis of one assumption, but without paradigms for it, and using the forms themselves it makes its way through these. – And he said: I could not understand what you are saying.

Σκόπει δὴ αὖ καὶ τὴν τοῦ νοητοῦ τομὴν ᾗ τμητέον. – Πῇ; – Ἧι τὸ μὲν αὐτοῦ τοῖς τότε μιμηθεῖσιν ὡς εἰκόσιν χρωμένη ψυχὴ ζητεῖν ἀναγκάζεται ἐξ **ὑποθέσεων**, οὐκ ἐπ' ἀρχὴν πορευομένη ἀλλ' ἐπὶ τελευτήν, τὸ δ' αὖ ἕτερον – τὸ ἐπ'ἀρχὴν ἀνυπόθετον – ἐξ **ὑποθέσεως** ἰοῦσα καὶ ἄνευ τῶν περὶ ἐκεῖνο εἰκόνων, αὐτοῖς εἴδεσι δι' αὐτῶν τὴν μέθοδον ποιουμένη. – Ταῦτ', ἔφη, ἃ λέγεις, οὐχ ἱκανῶς ἔμαθον.

T12: Τόπος Δ 1 = *Top.* 4.1, 120b15–20.

Action item: If the genus of something is posited, *first look* to all the things related to what was said, [and then see] whether it is not said of one of them, just as in the case of the attribute. **Example:** For example, if the good is posited as the genus of pleasure, [see] whether there is some pleasure which is not a good. For if this is the case, then it is clear that the good is not the genus of pleasure. **Rule:** For the genus is said of all the things which fall under the same species.

[**1**] ἂν δὴ τεθῇ γένος τινὸς τῶν ὄντων, πρῶτον μὲν ἐπιβλέπειν ἐπὶ πάντα τὰ συγγενῆ τῷ λεχθέντι, εἴ τινος μὴ κατηγορεῖται, καθάπερ ἐπὶ τοῦ συμβεβηκότος, [**2**] οἷον, εἰ τῆς ἡδονῆς τἀγαθὸν γένος κεῖται, εἴ τις ἡδονὴ μὴ ἀγαθόν· εἰ γὰρ τοῦτο, δῆλον ὅτι οὐ γένος τἀγαθὸν τῆς ἡδονῆς· [**3**] τὸ γὰρ γένος κατὰ πάντων τῶν ὑπὸ τὸ αὐτὸ εἶδος κατηγορεῖται.

> If *G* is a genus term and our interlocutor claims that *G* applies to all members of a species *E*, then if we find some item related to (i.e. included in?) a member of species *E* to which *G* does not apply, we have destroyed the statement which features this particular genus predication. The warrant for this use of the *topos* is added in the

form of a rule, and as an explanation (γὰρ, 120b19): the genus is said of all things which fall under the species (120b19–20).

T13: Τόπος Δ 2 = *Top.* 4.1, 120b20–29.

Action item: See whether the thing posited is not predicated in the what it is, but as an attribute. **Example:** As 'white' is said of snow or 'self-moving' is said of soul. **Rule:** For just as snow is not just what is white, for that very reason white is not the genus of snow, and soul is not exactly what moves itself. But it is an attribute of soul to move itself, just as it is an attribute of animal to often walk and be walking. **Observation/rule:** The predicate 'self-mover' seems to refer (σημαίνειν) not to what something is but to what it does or suffers. The same applies to 'white': this signifies (δηλοῖ) not what snow is, but how it is – a certain quality. So that neither of these are said in what it is. **Rule:** The genus is predicated in the what it is.

[**1**] εἶτα εἰ μὴ ἐν τῷ τί ἐστι κατηγορεῖται ἀλλ' ὡς συμβεβηκός, [**2**] καθάπερ τὸ λευκὸν τῆς χιόνος, ἢ ψυχῆς τὸ κινούμενον ὑφ' αὑτοῦ· [**3**] οὔτε γὰρ ἡ χιὼν ὅπερ λευκόν, διόπερ οὐ γένος τὸ λευκὸν τῆς χιόνος, οὔθ' ἡ ψυχὴ ὅπερ κινούμενον, συμβέβηκε δ' αὐτῇ κινεῖσθαι, καθάπερ καὶ τῷ ζῴῳ πολλάκις βαδίζειν τε καὶ βαδίζοντι εἶναι. [**4**] ἔτι τὸ κινούμενον οὐ τί ἐστιν ἀλλά τι ποιοῦν ἢ πάσχον σημαίνειν ἔοικεν. ὁμοίως δὲ καὶ τὸ λευκόν· οὐ γὰρ τί ἐστιν ἡ χιών, ἀλλὰ ποῖόν τι, δηλοῖ. ὥστ' οὐδέτερον αὐτῶν ἐν τῷ τί ἐστι κατηγορεῖται, [**5**] τὸ δὲ γένος ἐν τῷ τί ἐστι κατηγορεῖται.[1]

> The rule which shows why white is not the genus of snow is non-technical, and grounded in real relations. This part of the *topos* is appeals to something which can be accepted on the face of it. If asked why self-moving is not the genus of soul, we may appeal to the fact that this term can be correctly applied to both souls and animals as an attribute. The short pragmatic observation which follows upon this gives a further dimension of explanation: 'self-moving' (as a term, i.e. a linguistic item) is used to 'refer' (σημαίνειν) not to what something is, but to what it does and experiences. The explanation of why white cannot be the genus of snow also invokes a pragmatic aspect: white is used to 'signify' (δηλοῖ) not what snow is, but a quality it has.

T14: Τόπος Δ 45 = *Top.* 4.4, 124b15–22

Context. The species is a *relatum*. **Instruction.** See if the genus is also a *relatum*. **Rule 1**. If the species belongs to the *relata*, so too must the genus. **Example**. The double and the multiple each belong to the genus of the *relata*. **Rule 2**. If the genus belongs to the *relata*, it is not necessary that the species does too. **Example**. Knowledge belongs to the *relata*, but knowledge of letters does not. **Objection to Rule 1 by counter-example.** Perhaps not even the thing stated previously would seem to be true. For virtue is essentially fine and good, and virtue belongs to the *relata*, but the fine and the good are not *relata* but qualities.

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[1] Brunschwig 2009, 165 n. 6 expresses the suspicion that the words τὸ δὲ γένος ἐν τῷ τί ἐστι κατηγορεῖται (printed in Ross 1958) are a gloss.

Analysis. Rule 1: Given a species term E^1 and a genus term G^1, if E^1 is a *relatum*, so is G^1. Rule 2: Given a genus term G^1 and a species term E^1, if G^1 is a *relatum*, E^1 can, but need not, be one.

Commentary. This is the first of seven τόποι (Δ 45–51) concerning *relata*. Several feature counter-examples to the rules formulated for them (Δ 45, 47, 48, 50, 51). The occurrence of such counter-examples indicates an important feature of the procedure used in collecting the τόποι. The argument schemata which enter the τόποι of the genus are selected as assertible for contexts of propositions involving a G-term. In formulating the rules which would make these argument schemata generally applicable, Aristotle tests their status with the formulation of the rules which they rely on to be conclusive. Many τόποι fail this test, but are nevertheless included. This shows that the ultimate basis for the selection of a τόπος is its assertibility in a context. The fact that Aristotle admits argument schemata which are assertible or acceptable while scrutinizing their grounding in real relations through examples and counter-examples indicates that he is capable to keeping these two concepts – assertibility viz. acceptability, and truth – distinct in the collection and analysis of the τόποι. If a τόπος can be grounded in the real relations of genera and species, it may gain what we may call warranted assertibility. But A. does not say in such cases that the rule behind the inference scheme is "true".