“Cartesian Logic and Locke’s Critique of Maxims.” In *Locke and Cartesian Philosophy*. Edited by Philippe Hamou and Martine Pécharman. Oxford: Oxford University Press, 2018, 186–204.

#  Cartesian Logic and Locke’s Critique of Maxims

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## 1. Introduction

In the *Essay Concerning Human Understanding*,Locke argues against the view that “maxims” such as “The whole is greater than its (proper) parts” or “It is impossible for something to be and not to be” can serve as the foundation of knowledge. As Michael Ayers summarizes Locke’s argument: “Less general propositions logically derivable from received maxims are, if the maxims are true, just as evident in themselves and ‘easier and earlier apprehended’ in the method of teaching.”[[1]](#footnote-1) Locke’s alternative proposal is that maxims have only very limited functions, either for the purposes of giving an orderly exposition of what we already know, or in polemical contexts: If an opponent asks indefinitely for further explanations, we can bring the dispute to a close by invoking truisms that do not need any explanation. In contrast to other parts of the *Essay*, the chapter on maxims has not provoked strong objections among Locke’s commentators. Locke’s criticism seems to be cogent, and his own view plausible.

Things change, however, if one draws parallels between Locke’s critique of maxims and the critique of maxims found in Cartesian logicians such as Johannes Clauberg, Antoine Arnauld and Pierre Nicole. To be sure, Locke’s criticism is directed at the “Schools”[[2]](#footnote-2) and “Scholastick Men”[[3]](#footnote-3). Nevertheless, Ayers points out the close similarities between Locke’s argumentative strategy concerning maxims and the objections against the Ramist logic of “topics” or “loci” in Arnauld and Nicole’s *La Logique ou L’Art de penser* (1662):

In a passage from Virgil used by Pierre de la Ramée and discussed in the Port Royal *Logic*, a speaker says …, ‘Kill me, not him: I led him to do it’. This was classified by Ramée as an argument from the efficient cause, and for Arnauld and Nicole it illustrates the uselessness of the ‘topics’ for discovery.[[4]](#footnote-4) It would be absurd to suppose that the speaker might have worked studiously through a list of topics in order to hit upon such a reason for requesting to be killed. Reasons come naturally to us as the product of common sense and knowledge of the subject: logicians’ classification comes later.[[5]](#footnote-5)

In Ayer’s view, the authors of the Port Royal *Logic* emphasize, in a way similar to Locke, the epistemological priority of our knowledge of particulars and the inability to generate new knowledge through invoking general precepts. As we will presently see, a similar line of argument against Ramism can also be found in the first Cartesian logician, Johannes Clauberg. Arnauld and Nicole discovered Clauberg’s *Logica vetus et nova* (1654) only after the printing of the Port Royal *Logic* started. Nevertheless, Arnauld and Nicole took the opportunity to add some material to the later parts of *La Logique*, using Clauberg’s categorization of grammatical, logical, and metaphysical *loci*.[[6]](#footnote-6) Clauberg was involved in intense scholarly and personal struggles with his Ramist colleagues during his short stay at the Academy of Herborn (1649-51)—struggles that eventually led Clauberg to leave Herborn and to accept a position at the newly founded Academy of Duisburg.[[7]](#footnote-7) Like the Port Royaliens, Clauberg understood Cartesian methodology as an alternative not only to Scholastic but also to Ramist logic. As it turns out, Clauberg raised objections against the usefulness of maxims that are similar to Arnauld and Nicole’s and, in part, were directed against the Ramist strands in the thought of one of his Herborn colleagues, Cyriacus Lentulus.

Does it matter whether criticism is directed against the Scholastic conception of maxims or the Ramist conception? It matters a great deal. While the examples of maxims discussed in both traditions are to a large extent similar, and there was a wide agreement about the truth of such general propositions, the differences between the Scholastic and Ramist conception of maxims concern questions regarding the function of maxims in human reasoning. Consider the entry on maxims in Rudolph Goclenius’ *Lexicon philosophicum* (1613), a work that provides illuminating insights into early 17th-century usage of philosophical terms. Goclenius draws a sharp distinction between his own, late Aristotelian conception of maxims, and the Ramist conception. He defines: “Maxims are common axioms … they are general rules, comprising the entirety of those things that behave in the same way.”[[8]](#footnote-8) As he explains, in Aristotelian usage axioms are understood in a proof-theoretic context as the propositions that serve as starting-points for demonstrations but are not demonstrable themselves.[[9]](#footnote-9) Such a conception of axioms can be found, for example, in Marin Mersenne’s *La Verité des sciences* (1625), where propositions such as “The whole is greater than its parts” and “Every composite has parts” are characterized as “maxims and antecedents of our demonstrations” (*maximes, & antecedens de nos démonstrations*).[[10]](#footnote-10) However, Goclenius also mentions a second, alternative conception of maxims. As a spokesman for this second conception, he mentions the German Ramist Friedrich Beurhaus (1536-1609). Beurhaus defines: “Maxims are documents of an art, either the precepts themselves or at least their outcome and consequence.”[[11]](#footnote-11) Moreover, he calls a maxim in logic a “locus communis”.[[12]](#footnote-12) These quotations indicate that, according to the Ramist view, maxims are not part of proofs but rather part of the logic of “places”. Moreover, maxims stand in a complex relationship to an “art”—a discipline such as logic, rhetoric, or jurisprudence—, a relationship that combines two aspects: maxims have a prescriptive function and, in this sense, are “precepts” that tell us how to reason correctly; but our practices of reasoning do not depend on the explicit formulation of maxims and, in this sense, maxims “document” rather than constitute an art. The distinction between a proof-theoretic and a topical conception of maxims will be crucial for understanding both the merits and the shortcomings of Locke’s critique of maxims.[[13]](#footnote-13)

Widening the context of Locke’s critique of maxims, as I propose to do here, clarifies what is going on in Locke’s chapter on maxims: Clauberg and the authors of the Port Royal *Logic* develop a line of argument against the Ramist conception of maxims, and Locke applies a similar line of argument against a different target: the Scholastic conception of maxims (or what Locke took this conception to be). This shift of the object of criticism obviously may bring epistemic benefit: Even if Clauberg, Arnauld and Nicole may have fallen short of refuting the Ramist conception of maxims, the same line of argument may prove successful in refuting the Scholastic conception of maxims. Nevertheless, widening the context of Locke’s critique of maxims also indicates what is going wrong in Locke’s chapter on maxims. The Cartesian criticisms miss the point of the Ramist conception of maxims. According to the Ramists, maxims do not contribute to increasing our knowledge about the world. Rather, according to the Ramist conception, maxims are descriptive in the sense that they contribute to our knowledge about our own argumentative practices: They make something explicitly known that was known only in an implicit way before. To be sure, it was not the aim of Locke to refute the Ramist conception of maxims. But he did not take it into consideration, either. Due to its strong consilience with the arguments of Clauberg, Arnauld and Nicole, Locke’s criticism of the Scholastic conception of maxims leaves the Ramist alternative untouched. Hence, because Locke does not take the Ramist alternative into account, his conclusion about the limited functions of maxims remains inconclusive. This point is interesting because it indicates a sense in which philosophy could be descriptive—a sense that the Ramists have captured and Locke has missed.

## 2. What is Going On?

Let us begin with Clauberg’s critique of maxims. Clauberg was an eclectic who tried to combine elements of Aristotelian philosophy with elements from Cartesian methodology. With respect to ontology, Clauberg was a Scholastic who thought that the mind of God guarantees the possibility of the correspondence between signs and what is signified.[[14]](#footnote-14) With respect to logic, however, he tried to strike a balance between Aristotelian logic and the logical implications of the Cartesian method. He accepted Descartes’ epistemology of clear and distinct ideas and the view that correct reasoning depends on being attentive with respect to one’s own ideas.[[15]](#footnote-15) He defended the Cartesian method of doubt—a topic to which he devoted a whole book.[[16]](#footnote-16) Also, he shared Descartes’ view that some errors arise through the persistence of errors from childhood.[[17]](#footnote-17) Clauberg adds to Descartes’ view of the origin of errors Bacon’s conception of “idols”, especially the illusions which arise out of the misleading usage of words and the illusions which arise out of interactions with other human beings.[[18]](#footnote-18) Most importantly, as far as the logic of invention goes, Clauberg held that Descartes’ methodological precepts are all that the human mind needs. As Paul Schuurman puts it, Clauberg “defines logic as an art that should not concern itself with arid sophistry but that should rather help us direct our mind in the acquisition of new knowledge … Clauberg takes care to stress that Descartes did not dismiss the use of Aristotelian syllogisms out of hand, but rather inveighed against a dialectic that limited itself to disputations and sterile *loci topici*.”[[19]](#footnote-19)

In his rejection of the use of *loci* such as maxims, Clauberg goes beyond Bacon’s critique of “idols”. Bacon had thought that maxims are fine as far as the rules of discourse go. In fact, in one of his early works he had written extensively about the role of maxims in juridical argumentation, and he came back to the role of maxims in negotiations in *De dignitate et augmentis scientiarum*.[[20]](#footnote-20) Moreover, the fact that they do not express any insight that we did not possess before, in his view, does not impair the value of such maxims. As he argues in *The Advancement of Learning*, “invention of sciences” differs profoundly from “invention of speech”:

The *Invention* of speech or argument is not properly an *Invention*: for to *Invent* is to discover that, we know not, & not to recover or resummon that which wee already knowe; and the use of this *Invention*, is no other; *But out of the Knowledge, whereof our minde is already posseest, to draw foorth, or call before us that which may bee pertinent to the purpose, which wee take into our consideration*. So as to speake truly, it is no *Invention*; but a *Rememberance* or *Suggestion*, with a Application … [[21]](#footnote-21)

In fact, even if Bacon held “anticipations of the mind” to be useless for the purposes of science,[[22]](#footnote-22) he did not hesitate to apply one juridical maxim to the mode of exposition chosen in the *Novum organum* when he surmises that there is no possibility of argument with alternative theories of scientific method “since we do not agree about the principles nor about the proofs”.[[23]](#footnote-23) Consequently, Bacon had urged the peaceful co-existence of two distinct types of invention, one relevant for science, and one relevant for linguistic expression.[[24]](#footnote-24)

By contrast, Descartes argues against the usefulness of maxims even for the art of disputation. In the *Discours de la méthode*, Descartes remarks that “many people use the art of Lull only to quarrel abundantly and without any judgement about things that they do not know.”[[25]](#footnote-25) Likewise, in his *Epistola ad G. Voetium* (1643), he rebukes “childish dialectics” (*puerilis dialectica*):

And even those who have a quick and hot imagination but *no judgement*, just like children, can acquire within a few days the usage of this great art: for most easy are *similarities, differences, contraries, circumstances, antecedents, consequents,* and others of this kind, which are commonly counted among the *loci* … All objections and replies that, since they are unable to find them out by means of the internal consideration of the difficulty itself, they derive from the consideration of these external loci, are almost always inept and futile … And for this reason it is *most detrimental*, not only for adults but even more so for adolescents, who when they get used to it and become arrogant through the opinion of the doctrine acquired with it, they plainly corrupt their natural reason, which otherwise would have become mature with age.[[26]](#footnote-26)

In his *Defensio Cartesiana* (1652), Clauberg responded to some of the controversies provoked by Descartes’ writings on methodology. One early work that came out with criticisms of Descartes’ dismissal of the art of invention was the *Methodi cartesianae consideratio theologica* (1648) by the Dutch Reformed theologian Jacobus Revius. Most importantly for the present concerns, Revius objects that, in the cited passage from the letter to Voetius, Descartes did not prove that dialectics corrupts natural reason and suggests that art does not corrupt, but rather perfects nature.[[27]](#footnote-27) Cyriacus Lentulus, professor of politics at the Academy of Herborn, took up a similar line of argument in his *Nova Renati Descartes sapientia* (1651). Lentulus maintains that, in the cited passage from the *Discours*, Descartes suppresses topics and the art of invention

[w]hich in conjunction with the forms of argumentation helps in investigating things that we do not know, for the reason that it is no little help in giving to others an exposition of what we know … Of course, logic alone does not promise knowledge of things: just as an instrument does not work unless some material, say wood or cement, is provided, and the instrument is equipped with the mind and also the hand of the architect. Nevertheless, in order to reach an affirmation concerning things that we are doubtful about, from two more known propositions a third is deduced by means of necessary consequence: and the premise itself requires the art of topics.[[28]](#footnote-28)

In his response to these objections, Clauberg explains that Descartes does not disapprove of the investigation of causes and effects, but has a low opinion of arguments that are derived from general maxims and not from the internal nature of things.[[29]](#footnote-29) Clauberg also adds an argument for why dialectics is supposed to corrupt our natural reason: “[Descartes] proves this from the consideration that for this reason they are distracted from the internal consideration of things, and they are led to say many things without judgement about things of which they do not know the natures and properties.”[[30]](#footnote-30) In the *Logica vetus et nova*,Clauberg defends the Cartesian view with respect to maxims and holds that logical and metaphysical maxims are useless and misleading even as rules of disputation.[[31]](#footnote-31) He offers the following assessment:

Even if several maxims, namely those that are derived from definition, from cause, from the whole, etc., are such that the mind cannot doubt their truth when expressed generally, their *application* to a given question remains controversial, namely, whether the definition that is proposed by the dialectician is the true definition of the thing, whether this is the cause, and this the effect, whether this is a whole or a part; unless the adversary concedes these, or the participant in the disputation is able to deduce these from the consideration of the thing itself and its internal nature, his rule is of no use at all; but if he is able to deduce them from there [the thing itself and its internal nature], he will not produce clouds by arguing from common *loci*, but he will demonstrate [something] from the nature of the thing that is known to him.[[32]](#footnote-32)

According to Clauberg, the problem with maxims is not that they are not true. Rather, even in the case of maxims that are certain we face a problem of how to apply them to a given case. Clauberg’s argument is that, if we manage to apply them to a given case in a way that yields a correct result, this is due to our having analyzed this particular case correctly. For example, only when we have correctly identified a cause of a given effect and a cause of this cause, can we apply one of the causal maxims that Clauberg mentions before—“The cause of a cause is a cause of the effect”—to the given case. But then, Clauberg concludes, the application of maxims is secondary to the analysis of particular cases, and our knowledge of particulars in no way depends on maxims. For this reason, Clauberg assigns only a very limited value to the apparatus of dialectics. He concedes that the tools of dialectics may be useful for illustrating particular cases and in popular conversation; however, he holds that dialectics is of no use when it comes to providing evidence concerning the facts, or teaching academic disciplines, or engaging “in private and solitary demonstrations.”[[33]](#footnote-33) As Clauberg sums up, maxims pertain to the popular mode of discourse but not to the scientific mode of discourse (*exotericus* in contrast to *acroamaticus*).[[34]](#footnote-34)

Similar reservations about the usefulness of maxims can be found in the work of the Port Royaliens. As Bernard Roy has put it: “Arnauld and Nicole distrusted the mechanistic aspect of the topics and places”—the view that considering maxims and other *loci* would be sufficient or even necessary for finding new arguments.[[35]](#footnote-35) In the chapter on maxims, Arnauld and Nicole are well aware of the reasons that lead Ramus to challenge the Scholastics. While the Scholastics treat the *loci* after having given the rules of argument, Ramus claims against them that one has to explain the *loci* before treating the rules of argument. Ramus’ argument is that one first has to find the matter of thought before one can even dream of ordering it.[[36]](#footnote-36) Arnauld and Nicole think that this argument is weak

because even if it is necessary to find the matter for giving an order to it, it is nevertheless not necessary to learn how to find the material before learning how to order it. For to learn how to order material, it is sufficient to have some general materials that serve as an example; and the mind and the *sensus communis* provide enough such material without any need to apply any art or method. Hence it is true that one has to have some material to apply the rules of arguments; but it is false that it is necessary to find this material by means of the method of *loci*.[[37]](#footnote-37)

According to this line of argument, the human mind has a natural capacity to find new thoughts. Therefore, finding new thoughts does not depend on reflecting on any precepts of dialectics. Arnauld and Nicole even deny that, apart from dialectical exercises, anyone ever applies dialectical rules such as maxims, asking rhetorically: “Is there a single person who could say truthfully that, when he was obliged to treat some issue, he has reflected on these *loci* and searched there the reasons that were necessary for him?”[[38]](#footnote-38) But Arnauld and Nicole not only think that in fact no-one ever applies dialectical rules when forming arguments in real-life situations. Like Clauberg, they also hold that the general principles called “maxims” are unsuitable for this purpose since they do not lead the human mind to acquire new knowledge. For example, they question that there could be any circumstance in which the principle “It is impossible for the same thing to be and not to be” could serve to acquire any knowledge. [[39]](#footnote-39) In his view, this distinguishes maxims from the rules of Cartesian methodology, which serve to acquire new knowledge about the mind and the external world.

A similar line of argument is found in Locke’s various remarks on maxims, from the early *Drafts A* and *B* of the *Essay* (1671) to the *Essay* itself and Locke’s additions to later editions of the *Essay*. I do not want to suggest that Locke derived any of his remarks from the work of Clauberg or the Port Royal *Logic*. Rather, I would like to point out a similarity in argumentative structure. Already in *Draft A*, it becomes clear that Locke thinks of maxims in a proof-theoretic context when he comments on the principle “What is is” or “The same thing cannot be and not be”: “But how it influences the demonstration of the truth of things & upon what ground which perhaps hath by noe body been touchd at shall be shewne… amounting to noe more then this that the same word may with great certainty be affirmd of its self without any doubt of the truth of any such propositions & let me adde without any knowledg of any thing.”[[40]](#footnote-40) In the *Essay*, Locke develops a similar line of argument:

These two general Maxims amounting to no more in short but this, that *the same is the same*, and *the same is not different*, are truths known in more particular instances, as well as in these general Maxims, and known also in particular instances, before these general Maxims are ever thought on … There is nothing more visible, than that the Mind, without the help of any Proof, or Reflection on either of these general Propositions perceives so clearly, and knows so certainly, that the *Idea* of *White*, is the *Idea* of White, and not the *Idea* of Blue … therefore the truth of no general Proposition can be known with a greater certainty, nor add any thing to this.[[41]](#footnote-41)

Locke applies his view that the evidence of propositions such as “white is not blue” depends on the perception of our ideas of white and blue not only to empirical ideas but also to mathematical ideas. Already in *Draft B* he claims that the mind has intuitive knowledge about equality and inequality of numbers by means of the clear and distinct notions it has of them. The certainty of such knowledge does not require having recourse to any maxims which, interestingly, Locke in this context also calls “axioms”.[[42]](#footnote-42) A similar view is expressed in the *Essay*:

As to the *Relations* of Modes, Mathematicians have framed many Axioms concerning that one Relation of Equality. As *Equals taken from Equals, the remainder will be Equals*; which, with the rest of that kind, however they are received for Maxims by the Mathematicians, and are unquestionable Truths; yet, I think, that any one who considers them, will not find, that they have a clearer self-evidence than these, that *one and one, are equal to two*; that *if you take from the five Fingers of one Hand two, and from the five Fingers of the other Hand two, the remaining numbers will be equal*.[[43]](#footnote-43)

Again, Locke thinks about maxims in the proof-theoretic framework of axioms and argues that, due to the epistemological role of clear and distinct ideas, maxims (understood as axioms) cannot convey a greater degree of certainty to propositions about particulars than the self-evident insight into clear and distinct ideas.

In a small note with the heading “Maximes”, written between 1697 and 1699 as an addition to the fourth edition of *Essay* IV.xii.3, Locke develops this theme further. There, he doubts that a child knows how to use the terms “part” and “whole” before she knows how to use the terms “finger” and “body”. The implication seems to be that a child is able to apply a maxim such as “the whole is greater than its parts” only after she has mastered the use of the terms “whole” and “part”. But if a child has mastered the terms “finger” and “body” earlier than these terms, the insight that the body is greater than a finger cannot be derived from any maxim. Locke adds:

I ask farther when he has got these Names, how is he more certain that his Body is a *whole*, and his Little-Finger a *part*, than he was or might be certain before, he learnt those Terms, that his Body was bigger than his Little-Finger? Any one may as reasonably doubt or deny that his Little-Finger is a part of his Body, as that it is less than his Body.[[44]](#footnote-44)

Hence, our capacity of applying a maxim to a given situation depends on our capacity to apply the terms occurring in the maxim to this situation; but, as Locke holds, we cannot be more certain about the applicability of terms than we are about the relations between our clear and distinct ideas. For this reason, maxims cannot increase the certainty of our particular propositions, and Locke concludes: “that the Maxim, *The whole is bigger than a part*, can never be made use of to prove the Little-Finger less than the Body.”

Rejecting a proof-theoretic conception of maxims leads Locke to the conclusion “that these magnified *Maxims*, are not the Principles and *Foundations* of all our other *Knowledge*. For if there be a great many other Truths, which have as much self-evidence as they, and a great many that we know before them, it is impossible they should be the *Principles*, from which we deduce all other Truths.”[[45]](#footnote-45) In particular, he points out that all the discoveries of Newtonian physics have been made without invoking maxims a single time.[[46]](#footnote-46) On the contrary, he argues that, when maxims are applied to erroneous definitions in natural philosophy, they lead to conclusions that are positively wrong.[[47]](#footnote-47) Consequently, Locke suggests that maxims can fulfil only two very limited functions: they are useful “in the ordinary Methods of teaching Sciences as far as they are advanced”; and they are useful “in Disputes, for the silencing of obstinate Wranglers.”[[48]](#footnote-48) Of course, the view that maxims can have expository and polemical functions derives from observations concerning textbook didactics and the practices of academic disputation. However, the stronger claim that these are the *only* identifiable functions of maxims seems to be a direct consequence of his insight that arguing from maxims cannot increase knowledge.

By now, it should be clear what is going on in Locke’s chapter on maxims: Locke uses an argumentative strategy that closely resembles the argumentative strategy found in Cartesian critiques of maxims. Even if there is no reason to assume that Locke derived his chapter from the works of the Cartesians, it instantiates an argumentative pattern characteristic of the emerging Cartesian logic: maxims are incapable of increasing our knowledge; hence, any conception that regards maxims as the foundation of science has to be dismissed. This argumentative pattern certainly is attractive. But recall that Goclenius in his *Lexicon philosophicum* distinguished between the Scholastic, proof-theoretic conception of maxims as axioms and the Ramist, topical conception of maxims as general rules of dialectics. Is the Cartesian line of argument cogent when applied against the conception of maxims as *loci*? This question turns out to be surprisingly relevant for assessing the cogency of Locke’s argument. This is so because moving from the insight that maxims cannot ground and expand knowledge to the view that the *only* functions of maxims are restricted to expository and polemical contexts depends on the absence of further viable alternatives.

## 3. What is Going Wrong?

As I said at the beginning, placing Locke’s chapter on maxims within the context of Cartesian logic not only makes clear what is going on in this chapter. It also makes clear what is going wrong there. Similarity of argumentative structure, not textual influence, is what matters here. Since Locke’s arguments are closely similar to those found in Clauberg, Arnauld and Nicole, one specific shortcoming of the Cartesian arguments carries over to Locke’s. The shortcoming I have in mind is the following: Granted, Ramism is not equally present as a topic in all three philosophers. Arnauld and Nicole attack Ramus head on; Clauberg is involved in an academic controversy with Cyriacus Lentulus, a philosopher influenced by some aspects of Ramism; and Locke simply ignores the Ramists. Nevertheless, as I will argue in this section, the arguments of the Cartesians are insufficient to refute the Ramist view of maxims. Hence, even if Locke’s arguments may work well when directed against the Scholastic view of maxims, they are as ineffective to exclude the Ramist alternative as the Cartesian arguments are.

What did Ramus think about maxims, and how does his view of maxims relate to his conception of dialectical invention? According to Ramus, “Invention is the doctrine of thinking & finding an argument, i.e., a reason suitable to explicate a question.”[[49]](#footnote-49) Invention takes place by using concepts that make such an explication possible. In this sense, he regards categorial concepts as *loci* fulfilling this function in the constitution of discourse. He differentiates them by using the traditional distinction between innate (*insita*) and conventional (*assumpta*) concepts.[[50]](#footnote-50) Among the innate, non-conventional concepts, he counts causal concepts, such as those of final, formal, efficient, conserving, and spontaneous cause.[[51]](#footnote-51) Ramus claims, “We can derive from the common use [*communis usus*] of simple prudence all the testimonies of all the merits of dialectics.”[[52]](#footnote-52) Hence, there is a sense in which dialectical invention does not invent anything that we did not have before. Ramus points out that, when he uses examples from literary and rhetorical works, he understands poets and orators as “famous and illustrious witnesses of this common sense, and of human prudence.”[[53]](#footnote-53) He also puts it thus: “The art of dialectics has as its subject and aim to explicate the natural use of reason as it is impressed on great minds, in a certain custom, in perfect examples.”[[54]](#footnote-54)

In Ramus’ view, logical and metaphysical maxims are part of dialectics. He criticizes the Scholastic view of maxims as a part of scientific knowledge. In his view, maxims are unsuitable to fulfil the function of providing a foundation of knowledge since they do not guarantee that the assumptions from which we start our argument are not faulty. He recommends: “When we explore given examples … not only the positive sides should be discerned, so that relevant, perspicuous, certain, and coherent things are accepted. But also the vices should be noted, so that irrelevant things are rejected, obscure ones explained, ambiguous ones distinguished, false ones negated, and incoherent ones suspended.”[[55]](#footnote-55) As he explains, among false assumptions there are those that take something that is not a cause for a cause, or something that is not an effect for an effect;[[56]](#footnote-56) also, there are errors that are due to the misleading imposition of names[[57]](#footnote-57) or that arise from wrong definitions.[[58]](#footnote-58) In his view, maxims are not the adequate tool to avoid errors concerning particular causes of particular effects, or to avoid a misleading usage of names or erroneous definitions of terms. To avoid such epistemic vices, we have to apply epistemic capacities other than those that can be expressed by means of maxims. Maxims, in Ramus’ view, have another function:

We briefly touched upon those vices which seem to be opposed to the virtues of invention, so that we do not expect anything from maxims, as they are commonly called by the Scholastics. Maxims do not carry with them any new precepts: for they have something of the precepts of an art, such that when a definition or distinction, which is taken for granted for the purposes of argument in order to find a proof for a given question, all precepts of this art, when I give my assent to them, are to be related to the confirmation of human prudence …[[59]](#footnote-59)

Presumably, what Ramus has in mind is the following. Suppose we have identified a particular cause of a given effect, and a particular cause of this cause. Then maxims concerning causes and effects, e.g. “The cause of a cause is a cause of the effect”, give us rules about how to relate remote segments of a chain of causes to the effect. Such a maxim does not help us in correctly identifying causes and effects. But it tells us what kinds of arguments concerning causes and effects are valid, once these have been identified. Moreover, maxims of this kind do not tell us anything new. Rather, they make rules explicit that we implicitly always apply, e.g., when reasoning about causes and effects.

Ramus holds that many examples show that such rules are in fact used by classical authors such as Cicero. He asks us to consider a passage from the *Tusculanae disputationes*, where Cicero suggests: “when it is said that in vices there is a strong force leading towards a miserable life, isn’t it to be said that in virtue there is a strong force leading towards a happy life?” According to Ramus, the maxim that Cicero is applying here is the rule according to which “contraries are the consequences of contraries.”[[60]](#footnote-60) Of course, Ramus does not claim that Cicero is actually reflecting in an explicit way on this maxim. Rather, his suggestion seems to be that the maxim makes a rule explicit that in an implicit, pre-reflective way structures propositions like the one found in the *Tusculanae disputationes*. In this sense, maxims do not enable the mind to do anything that it was unable to do before. Rather, they explicate the rules that the mind had applied in reasoning before reflecting on its own operations.

The Ramist conception of maxims was by no means absent from early 17th-century philosophy in England. Take the case of Sir William Temple (1555-1627), one of the most influential Cambridge Ramists and some-time Provost of Trinity College, Dublin.[[61]](#footnote-61) In his commentary on the two-book Latin version of Ramus’ *Institutiones dialecticae*, Temple asks:

From the observation of which thing did … the precepts of the art of logic flow? Certainly from the observation of natural reason, viz. comprised and expressed in the sayings and writing of other men who are famous in the Republic of Letters, in the opinions and commentaries of poets, orators, philosophers, theologians. For they all have made use of the natural and divine endowed reason, i.e., they made the causes and effects of things evident …[[62]](#footnote-62)

Like Ramus, Temple maintains that there is nothing novel or artificial in the rules of logic. Rather, logic describes what is going on in our natural capacities of reasoning. This is why the study of the most outstanding examples of natural reason, as documented in the works of great poets, orators etc., is essential: their patterns of reasoning provide the standard against which other arguments can be assessed. The origin of logic in natural reason, in Temple’s view, also speaks against the widely held belief that there are two methods, one popular, one exact. In a polemical work directed against Everard Digby, a prominent Cambridge Aristotelian and opponent of Ramism,[[63]](#footnote-63) Temple claims: “Those that attain no elegance of the discipline, and those that go to the academy use the … same precepts in searching for the truth and the same laws of inference in judging. In this way, method is not restricted to certain persons, or attached to certain things …”[[64]](#footnote-64) For this reason, Temple also ridicules the Aristotelian distinction between “being more known for us” and “being more known according to nature”: “What if a practitioner of medicine, when categorizing beneficial things, would say that some of them were more beneficial for human beings, others however more beneficial according to nature? … Or if a musician would claim that of two given sounds one is sharper for us, the other sharper according to nature …?”[[65]](#footnote-65) According to Temple, in logic there is nothing that is “more known according to nature” since all that can be known in logic derives from the description of the rules of natural reason.

When Clauberg, Arnauld and Nicole object to the Ramist view of maxims that maxims cannot serve to increase our knowledge of particulars, they misidentify the target of their criticism. For Ramus and his followers, maxims, like other *loci*, are not knowledge-increasing tools. According to the Ramists, maxims, like other *loci*, are formulated by reflecting on what is going on in our practice of forming new arguments. Maxims describe only how human beings endowed with natural reason structure and increase their knowledge. A maxim such as “Everything is what it is and not something else” describes the logical structure common to a proposition such as “Red is not blue” and other propositions of the same logical form. Propositions that instantiate the logical structure described by the maxim are formed correctly; propositions that are contrary to the logical structure described by the maxim are formed incorrectly. According to Ramus and his followers, logical and metaphysical *loci* make explicit those rules that the mind already applies in everyday argumentative practice without reflecting on them. Reflecting on the actual argumentative practice of human beings—in particular, as exemplified by the great poets and orators—leads us to become aware of the role that these maxims play in our pre-reflective practice. Reflection thus leads to an awareness of normative components that are at work in our everyday reasoning. Giving an explicit formulation to maxims remains purely descriptive, because it does not introduce anything that was not implicitly presupposed in our everyday way of speaking and reasoning.

Even if Locke did not target the Ramists, his chapter on maxims misses the complexity of the field of existing alternative conceptions of the logical role of maxims. Because Locke’s critique of maxims is closely similar to Cartesian criticisms of the Ramist tradition, what Locke objects against the Scholastic view is insufficient to exclude alternatives to the Scholastic view other than his own. Ramus does not think that our argumentative practices should be derived from reflecting on maxims and other rules of reasoning. According to his view, maxims do not fulfill any of the roles that Locke thought that “Scholastic men” would ascribe to them: Maxims are not meant to increase the probability of our particular knowledge claims; they do not make anything certain that was not certain before; and they do not function as starting points for deductive arguments. Rather, according to Ramus maxims and other rules of reasoning describe the structure of the argumentative practices that we have already mastered. Ramus and the Ramists have a clear and interesting answer to the question of what the epistemic benefit of expressing maxims might be: Maxims describe formal aspects of actual examples of reasoning. But not any examples of reasoning will do for this purpose. This is why, according to Ramus and the Ramists, we have to analyze examples of reasoning in outstanding authors. Due to their paradigmatic function of such examples, expressing maxims helps stabilizing our own argumentative practice: Forms of argument that correspond to the exemplary forms of argument are permissible, forms of argument that do not correspond to the exemplary forms are not permissible. Due to their connection with exemplary cases of reasoning, maxims at the same time function as descriptions of actual cases of reasoning and as criteria of correct reasoning.

Locke does address the Ramist tradition in any explicit way. One reason for his passing over Ramism in silence may have been that he shared some of the methodological assumptions implicit in the Cartesian tradition. Methodological rules, ever since the publication of the *Regulae*, were meant to direct the mind towards novel discoveries. The compilation of methodological rules that Arnauld and Nicole give in the fourth book of the *La logique* is characterized as furthering such a goal,[[66]](#footnote-66) and Locke implicitly subscribes to a similar view of the function of methodological rules when he remarks that Newton reached all of the insights in his *Principia* without reflecting once upon maxims.[[67]](#footnote-67) Tautologically, if the task of philosophy is defined as leading to novel discoveries, maxims do not contribute to what philosophy should do. But applying the Cartesian view of the function of methodological rules does not by itself constitute an argument that shows what is wrong with the analytic, descriptive, and criterial conception of maxims defended by the Ramists. Maybe Locke’s criticism of the scholastic, proof-theoretic view of maxims is as cogent as possible. And maybe he has accurately diagnosed the didactic and polemical functions that maxims can fulfil. Nevertheless, since he does not take the Ramist alternative into account, the argumentleading from his critique of the Scholastic view of maxims to the view that the only functions that maxims can fulfil are expository and polemic appears to be less than conclusive.

## 4. Conclusion

The foregoing considerations have placed Locke’s critique of maxims within the context of Cartesian criticisms of maxims. Locke did not necessarily derive his critique of maxims from the Port Royal *Logic*, and Arnauld and Nicole probably did not derive his own critique of maxims from Clauberg. However, broadening the context of Locke’s remarks on maxims makes it clear that Locke shares an overall argumentative strategy with the Cartesians: Like Clauberg, Arnauld and Nicole, he argues that maxims are unsuitable for increasing human knowledge and hence can play a role only for the purposes of teaching and ending controversies. Such a line of argument may be effective when, as in the case of Locke, it is directed against the Scholastic conception of maxims. The same line of argument, however, is ineffective when, as in Cartesian logic, it is directed against the Ramist conception of maxims. Ramus shares with his critics the view that maxims cannot increase knowledge; but does not share the view that maxims, for this reason, are relevant only for didactic and polemical purposes. Rather, he holds that maxims, like other dialectical topics, describe rules that we apply in reasoning even before reflecting on these rules. Strangely enough, this point was missed by Clauberg, Arnauld, Nicole and Locke alike. It is, I suggest, a metaphilosophical point: In his discussion of maxims, Ramus indicates as sense in which dialectics (as the part of philosophy concerned with maxims) can be understood as a descriptive discipline—as a discipline that is concerned with the analysis of (model cases of) everyday reasoning. Such a conception of the task of dialectics is left intact by the insight that maxims cannot be useful in the context of the logic of invention when “invention” is understood in the sense of an expansion of knowledge. And this is so because Ramist “invention” does not aim at creating new knowledge but rather at making us aware of what we implicitly have always known.

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1. Ayers, *Locke*, I, p. 92. [↑](#footnote-ref-1)
2. E. IV. vii. 8, p. 595. [↑](#footnote-ref-2)
3. E. IV. vii. 11, p. 598. [↑](#footnote-ref-3)
4. Arnauld and Nicole, *La Logique*, III, 17, pp. 232-233. [↑](#footnote-ref-4)
5. Ayers, *Locke*, I, pp. 89-90. [↑](#footnote-ref-5)
6. Arnauld and Nicole, *La Logique*, III, 18, p. 237: “En voicy une qui paroit assez commode d’un Philosophe Allemand fort judicieux & fort solide nommé Clauberge, dont la Logique m’est tombée entre les mains, lors qu’on avoit déja commencé à imprimer celle ci.” On the respective responsibilities of Arnauld and Nicole for various portions of *La logique*, see McKenna, “La composition de la Logique de Port-Royal”. Since the passages on maxims are not contained in the so-called ‘*Manuscrit Vallant*’ (BNF, fr. 19 915), which is attributed to Arnauld alone, they might be supposed to be added either by Arnauld and Nicole together, or by Nicole alone. (Heartfelt thanks to Martine Pécharman for pointing this out to me.) For a reproduction of the ‘*Manuscrit Vallant*’, see Dominique Descotes’s critical edition of the 1664 version of *La Logique*, pp. 685-801. [↑](#footnote-ref-6)
7. On Clauberg’s tensions with the Herborn Ramists, see Bohatec, *Die cartesianische Scholastik in der Philosophie und reformierten Dogmatik des 17. Jahrhunderts*, pp. 57-60; Verbeek, “Johannes Clauberg: A Bio-bibliographical Sketch”, pp. 186-187. [↑](#footnote-ref-7)
8. Goclenius, *Lexicon philosophicum*, p. 674: “Maximae sunt communia Axiomata … sunt Generales Regulae, summas earum rerum, quae eodem se habent modo, complectentes.” [↑](#footnote-ref-8)
9. Ibid., p. 136. [↑](#footnote-ref-9)
10. Mersenne, *La Verité des sciences*, p. 192. On the Scholastic background of Mersenne’s thought, see Dear, *Mersenne and the Learning of the Schools*. [↑](#footnote-ref-10)
11. Goclenius, *Lexicon philosophicum*, p. 674: “Maximae sunt artis documenta, praeceptaque ipsa vel saltem eorum fructus & consectaria.” [↑](#footnote-ref-11)
12. Goclenius refers the reader to Beurhaus, *Paedagogiae logicae … pars secunda, editio locupletior*, p. 324. [↑](#footnote-ref-12)
13. Logicians to be found in Locke’s library include Clauberg and the authors of the Port-Royal *Logic* (although none of them is included in the list of annotated texts). But even more prominent than works from the Cartesian tradition were writings of the protagonists of the new Baconian science: besides works by Boyle, Sydenham, and Hooke, there are numerous volumes by William Molyneux, Thomas Willis, Thomas Burnet, Joseph Glanvill, Charles Perrault and others (see Harrison and Laslett, *The Library of John Locke*). Locke does not seem to have owned any works by Petrus Ramus and his literary associate, Omer Talon, or any works by the prominent Ramist critic of Baconian methodology, Sir William Temple. On the absence of the most prominent anti-Baconian works in Locke’s library, see Wood, *The Politics of Locke’s Philosophy*, pp. 65-67. [↑](#footnote-ref-13)
14. On Clauberg’s ontology, see Viola, “Scolastica e cartesianesimo nel pensiero di J. Clauberg”, pp. 256-264; Trevisani, “Johannes Clauberg e l’Aristotele riformato”; Savini, *Johannes Clauberg:* Methodus Cartesiana *et ontologie*. [↑](#footnote-ref-14)
15. Clauberg, *Logica vetus et nova*, I, ii, § 16; I, iii, § 1; see Savini, “L’insertion du cartésianisme en logique”, pp. 76-80. [↑](#footnote-ref-15)
16. Clauberg, *Initiatio philosophi sive dubitatio cartesiana*. [↑](#footnote-ref-16)
17. Clauberg, *Defensio cartesiana*, ch. xxxii-xxxiv; Clauberg, *Logica vetus et nova*, Prolegomena, ch. 2, §§ 20 and 24; Descartes, *Meditationes de prima philosophia* I, AT VII, 17; Descartes, *Sextae responsiones*, AT VII, 441; Descartes, *Principia*, I, art. 1, AT VIII-1, 5; I, art. 72, AT, VIII-1, 36; Descartes, *Discours*, II, AT VI, 13; see Savini, “L’insertion du cartésianisme en logique”, pp. 80-85. [↑](#footnote-ref-17)
18. Clauberg, *Logica vetus et nova*, Prolegomena, ch. 4; Ibid., IV, ii-iv; see Savini, “L’insertion du cartésianisme en logique”, pp. 85-86. [↑](#footnote-ref-18)
19. Schuurman, *Ideas, Mental Faculties, and Method*, p. 63. On Clauberg’s replacement of logic of loci by Descartes’ methodological precepts, see Trevisani, *Descartes in Germania*, pp. 73-78. Clauberg’s interest in Cartesian methodology, of course, is compatible with his view that the Cartesian methodology has to be supplemented by other rules for other purposes. On Clauberg’s theory of interpretation, see Lagrée, “Sens et verité chez Clauberg et Spinoza”. [↑](#footnote-ref-19)
20. Francis Bacon, *Maxims of the Law*; *De dignitate et augmentis scientiarum* VIII, 1-2, in *Works*, vol. 1, pp. 745-791. [↑](#footnote-ref-20)
21. Bacon, *The Advancement of Learning*, p. 111. [↑](#footnote-ref-21)
22. Bacon, *Novum organum*, I, xxxiii. [↑](#footnote-ref-22)
23. Ibid., I, lxi. [↑](#footnote-ref-23)
24. Ibid., preface. [↑](#footnote-ref-24)
25. AT VI, 17. [↑](#footnote-ref-25)
26. AT VIII-2, 50,19-52,1: “Et quidem ii qui promtae et calidae sint imaginationis, sed nullius iudicii, quales pueri esse solent, possunt intra paucos dies magnum istius artis usum acquirere: perfacile enim similitudines, differentias, contraria, adiuncta, antecedentia, consequentia, et reliqua ejusmodi, quae vulgo in topicis recensentur … Omnes … objectiones et rationum solutiones, quae cum ex intima ipsius difficultatis consideratione erui non possunt, ab externa locorum istorum inspectione petuntur, fere semper sunt futiles et ineptae … Et ideo damnosissima est, non tantum adultis, sed praecipue junioribus, qui dum ei assuescunt, et ex opinione doctrinae per ipsam acquisita, superbiunt, rationem suam naturalem, quae alioquin aetate posset maturescere, plane corrumpunt.” On the Utrecht controversy, see Verbeek, *Descartes and the Dutch*, pp. 13-33; van Ruler, *The Crisis of Causality*. [↑](#footnote-ref-26)
27. Revius, *A Theological Examination of Cartesian Philosophy*, p. 130: “Qui hoc dicit, nec probat, pro maledico calumniatore traduci meretur. Quis enim non videt naturam arte expoliri, non autem corrumpi?” See Savini, *Johannes Clauberg:* Methodus Cartesiana *et ontologie*, pp. 105-109. [↑](#footnote-ref-27)
28. Lentulus, *Nova Renati Descartes sapientia*, pp. 50-51: “[Q]uae una cum forma argumentationis ad ea quae ignoramus investiganda prodest, eo ipso argumento, quod non parum prosit in iis quae novimus aliis exponendis … Rerum quidem cognitionem Logica sola non promittit: ut nec instrumentum operatur nisi materia, puta ligno aut caemento, praebita, & architecti mente vel etiam manu ornatum. Ut tamen ad eorum, de quibus dubitatio instituitur, asseverationem perveniamus, e duobus notioribus tertium de quo quaerebatur necessaria illatione concluditur: & praemissa ipsa arte topica indagat.” See Savini, *Johannes Clauberg:* Methodus Cartesiana *et ontologie*, pp. 113-116. [↑](#footnote-ref-28)
29. Clauberg, *Defensio cartesiana*, p. 120: “Non improbat caussarum, effectorum &c. investigationem … sed argumenta ab externis illis locis causae, effecti &c. vi maximarum istarum nimis generalium & non ex intima rei natura petita tanquam Philosophus parvi pendet.” [↑](#footnote-ref-29)
30. Ibid., p. 121: “Hoc inde probat, quia ista ratione ab intima rerum consideratione abducuntur, ac de iis quarum naturas & proprietates nesciunt multa sine judicio loqui adsuescunt.” [↑](#footnote-ref-30)
31. See Bohatec, *Die cartesianische Scholastik*, pp. 89-90. As examples of logical loci, Clauberg mentions the following: “What is universally affirmed or negated about the genus, is also affirmed or negated about the species;” “If the genus is denied, also the species is denied;” “If the definition is affirmed or negated with respect to something, also what is defined is affirmed or negated with respect to something;” “What is affirmed or negated with respect to the definition, is also affirmed or negated with respect to the defined.” As examples of metaphysical loci: “The nature of the cause determines the nature of the effect;” “What is the cause of a cause is also a cause of what is caused;” “If it is assumed that the effect is given, it is assumed that an efficient cause exists or has existed” (Clauberg, *Logica vetus et nova*, p. 193). [↑](#footnote-ref-31)
32. Clauberg, *Logica vetus et nova*, pp. 194-195: “Etiamsi nonnulli canones, videlicet qui a definitione, a causa, a toto, &c. petiti, tales sint, ut de eorum generatim enunciatorum veritate mens dubitare nequeat, de eorum tamen applicatione ad quaestionem res manet controversa, nempe an ea, quam ponit Dialecticus, sit vera illius rei definitio, an ea causa, an id effectum, totum, pars, quod nisi vel ultro concedat adversarius, vel ex rei ipsius consideratione & natura intima educere possit Disputator, ne quidem hilum proficiet sua regula; sin possit inde deducere, non nugabitur sic disputando e loco communi, sed demonstrabit e natura rei sibi perspecta.” [↑](#footnote-ref-32)
33. Ibid., pp. 195-196: “Nullumne igitur usum apparatus dialectici esse concedis? Resp. Usum in levioribus praeludiis do, in decretoriis praeliis nego, do ad illustrandum, nego ad evidenter convincendum, do in populari conversatione, nego in disciplinarum traditione, do usum rationibus dialecticis demonstrationi sociatis, nego separatis ac solitariis.” [↑](#footnote-ref-33)
34. Ibid., pp. 136-136. [↑](#footnote-ref-34)
35. Roy, “Reasoned Grammar, Logic, and Rhetoric at Port-Royal”, p. 134. [↑](#footnote-ref-35)
36. Arnauld and Nicole, *La logique*, III, 17, pp. 232-233: “Ramus fait une querelle sur ce sujet à Aristote & aux philosophes de l’école, parce qu’ils traitent des Lieux après avoir donné les regles des arguments, & il pretend contre eux, qu’il faut expliquer les Lieux & ce qui regarde l’invention avant que de traiter de ces regles.

La raison de Ramus est, que l’on doit avoir trouver la matiere avant que de songer à la disposer.” [↑](#footnote-ref-36)
37. Ibid., p. 233: “Mais cette raison est très-foible, parcequ’encore qu’il soit necessaire que la matiere soit trouvée pour la disposer, il n’est pas necessaire neanmoins d’apprendre à trouver la matiere avant que d’avoir appris à la disposer. Car, pour apprendre à disposer la matiere, il suffit d’avoir certaines matieres generales pour servir d’exemples; or l’esprit & le sens commun en fournit toujours assez sans qu’il soit besoin d’en emprunter d’aucun art ny d’aucune methode. Il est donc vrai qu’il faut avoir une matiere pour y appliquer les regles des argumens; mais il est faux qu’il soit necessaire de trouver cette matiere par la methode des Lieux.” [↑](#footnote-ref-37)
38. Ibid., p. 234: “[Y] en a-t-il un seul qui puisse dire veritablement, que lorsqu’il a été obligé de traiter quelque sujet, il ait fait reflexion sur ces lieux, & y ait cherché les raisons qui lui etoient necessaires ? Qu’on consulte tant d’Avocats & de Prédicateurs qui sont au monde, tant de gens qui parlent & qui écrivent, & qui ont toûjours de la matiere de reste, & je ne sai si on en pourra trouver quelqu’un qui ait jamais songé à faire un argument *à causa*, *ab effectu*, *ab adjunctis*, pour prouver ce qu’il desiroit persuader.” [↑](#footnote-ref-38)
39. Ibid., IV, 7, p. 321: “[J]e ne voi point de rencontre où il puisse jamais servir à nous donner aucune conoissance.” [↑](#footnote-ref-39)
40. Locke, *Drafts for the Essay Concerning Human Understanding*, Draft A, #28, p. 54. [↑](#footnote-ref-40)
41. E. IV. vii. 4, p. 593. [↑](#footnote-ref-41)
42. Locke, *Drafts for the Essay Concerning Human Understanding*, Draft B, #51, p. 158. [↑](#footnote-ref-42)
43. E. IV. vii. 6, p. 594. [↑](#footnote-ref-43)
44. E. IV. xii. 3, p. 641; cf Locke, “Maxims.” MS Locke, e. 1, p. 182. On the latter text, see Paul Schuurman, “General introduction” to his Ph.D edition of Locke’s *Of the Conduct of the Understanding*, pp. 100, 111. [↑](#footnote-ref-44)
45. E. IV. vii. 10, p. 596. [↑](#footnote-ref-45)
46. E. IV. vii. 11, p. 599. On Locke’s view of the uselessness of maxims for natural philosophy, see Yolton, *The Two Intellectual Worlds of John Locke*, pp. 54-58. [↑](#footnote-ref-46)
47. E. IV. vii. 12, p. 604. [↑](#footnote-ref-47)
48. E. IV. vii. 11, p. 600. [↑](#footnote-ref-48)
49. Ramus, *Institutionum dialecticarum libri tres*, p. 16: “Inventio est doctrina cogitandi & inveniendi argumenti, id est, probationis ad explicandam quaestionem idoneae.” On Ramus’ conception of loci, see Robinet, “La posterité cartésienne du combat raméen et ramiste.” [↑](#footnote-ref-49)
50. Ramus, *Institutionum dialecticarum libri tres*, p. 17. [↑](#footnote-ref-50)
51. Ibid., pp. 17-37. [↑](#footnote-ref-51)
52. Ibid., pp. 372-373: “Verum e simplici prudentiae communis usu, qui caeteris in rebus arte nulla comprehensis versatur, omnium dialecticarum laudum testimonia sumpsimus: atque ea quidem quam maxime potuimus insignia. Poetas enim & oratores, id est claros & illustres communis illius sensus, & humanae prudentiae testes in singulis doctrinae locis adhibuimus: qui cum dialecticam non solum in privatis doctorum hominum scholis, verum etiam in iudiciis, in senatu, in concionibus, in theatris, in omnibus denique humanae vitae partibus vigentem florentemque demonstraverint, tum facile singularem hunc rationis fructum, omnium hominum communem esse vindicabunt: popularique illa sua non solum sapientia, verum etiam suavitate & elegantia maiores certe virtutis huius amores excitabunt.” [↑](#footnote-ref-52)
53. Ibid., p. 373. [↑](#footnote-ref-53)
54. Ibid., p. 58: “Dialectica ars subiectum & propositum habet ad explicandum naturalem rationis usum in magnis ingeniis, in certa consuetudine, in perfectis exemplis impressum.” On the role of natural reason in Ramus’ dialectics, see Blank, “Ramus and Leibniz on Analysis”. [↑](#footnote-ref-54)
55. Ramus, *Institutionum dialecticarum libri tres*, pp. 306-307: “In explorandis propositis exemplis … non solum laudes cernentur, ut propria, perspicua, certa, vera, consentanea concedantur. Sed vitia notabuntur, ut aliena reijciantur, obscura explicentur, ambigua distinguantur, falsa negentur, inconsequentia suspendantur.” [↑](#footnote-ref-55)
56. Ibid., pp. 309-310. [↑](#footnote-ref-56)
57. Ibid., pp. 313-314. [↑](#footnote-ref-57)
58. Ibid., pp. 315-316. [↑](#footnote-ref-58)
59. Ibid., p. 329: “Breviter attigimus exemplis ea vitia quae virtutibus inventionis opposita esse videbantur, nisi forte de maximis propositionibus, quae vulgo nominantur in scholis, aliquid expectamus: quae tamen nihil habent novae praeceptionis: aliquid enim ex artis praeceptis habent, ut definitionem, aut divisionem, quod pro argumento ad quaestionem probandam sumitur, ut affirmanti mihi artis huius omnia praecepta ad humanae prudentiae confirmationem referenda esse …” [↑](#footnote-ref-59)
60. Ibid., p. 330: “… ‘cum faterentur satis magnam vim esse in vitiis ad miseram vitam, nonne fatendum est eandem in virtute esse ad beatam?’ Contraria enim contrariorum sunt consequentia.” See Cicero, *Tusculanae disputationes*, V, xvii.50. [↑](#footnote-ref-60)
61. On English Ramism and its critics, see Oldrini, “Les strategies du combat chez Ramus et les Ramistes”, pp. 34-40; Daniel, “The Ramist context of Berkeley’s philosophy”; Feingold, “English Ramism: A Reinterpretation”; Boran, “Ramism in Trinity College, Dublin in the Early Seventeenth Century”. [↑](#footnote-ref-61)
62. Temple, *P. Rami Dialecticae libri duo, Scholiis Guilielmi Tempelli Cantabrigiensi illustrati*, pp. 1-2: “E cuius … rei observatione Logicae artis praecepta fluxerunt? Certe ex observatione naturalis rationis, comprehensae quidem & expressae cum aliorum in republica praestantium hominum dictis & scriptis, tum poetarum, oratorum, philosophorum, theologorum sententiis ac commentationibus. Hi enim omnes naturali & divinitus tributa ratione usi sunt, id est, rei causas & effecta exposuerunt.” [↑](#footnote-ref-62)
63. See Digby, *De duplici methodo libri duo*. [↑](#footnote-ref-63)
64. [William Temple,] *Admonitio Francisci Mildapetti Navarreni*, p. 55: “Eisdem … praeceptis in veritate pervidenda, eisdem legibus in judicio consequentiae uti possunt & illi, qui nullius elegantiam disciplinae attigerunt, & illi qui Academiam profitentur. Sic methodus non est certis definita personis, non ad res certas alligata …” [↑](#footnote-ref-64)
65. Ibid., p. 64. [↑](#footnote-ref-65)
66. Arnauld and Nicole, *La Logique*, IV, 7. [↑](#footnote-ref-66)
67. E. IV. vii. 3, p. 599. [↑](#footnote-ref-67)