1: Aristotle's Logic (Stanford Encyclopedia of Philosophy)

TRANSLATION OF MAIMONIDES' TREATISE ON LOGIC A Treatise on the art of logic, by the head of the religion of Israel, Musa ibn 'Obaid Allah of Cordova, may God be gracious.

Scope[edit] Scholars have debated the scope of rhetoric since ancient times. Although some have limited rhetoric to the specific realm of political discourse, many modern scholars liberate it to encompass every aspect of culture. Contemporary studies of rhetoric address a much more diverse range of domains than was the case in ancient times. While classical rhetoric trained speakers to be effective persuaders in public forums and institutions such as courtrooms and assemblies, contemporary rhetoric investigates human discourse writ large. Rhetoricians have studied the discourses of a wide variety of domains, including the natural and social sciences, fine art, religion, journalism, digital media, fiction, history, cartography, and architecture, along with the more traditional domains of politics and the law. Public relations, lobbying, law, marketing, professional and technical writing, and advertising are modern professions that employ rhetorical practitioners. Because the ancient Greeks highly valued public political participation, rhetoric emerged as a crucial tool to influence politics. Consequently, rhetoric remains associated with its political origins. However, even the original instructors of Western speechâ€"the Sophists â€"disputed this limited view of rhetoric. According to the Sophists, such as Gorgias , a successful rhetorician could speak convincingly on any topic, regardless of his experience in that field. This method suggested rhetoric could be a means of communicating any expertise, not just politics. In his Encomium to Helen , Gorgias even applied rhetoric to fiction by seeking for his own pleasure to prove the blamelessness of the mythical Helen of Troy in starting the Trojan War. He criticized the Sophists for using rhetoric as a means of deceit instead of discovering truth. In "Gorgias", one of his Socratic Dialogues , Plato defines rhetoric as the persuasion of ignorant masses within the courts and assemblies. Thus, Plato considered any speech of lengthy prose aimed at flattery as within the scope of rhetoric. Aristotle both redeemed rhetoric from his teacher and narrowed its focus by defining three genres of rhetoricâ€" deliberative , forensic or judicial, and epideictic. When one considers that rhetoric included torture in the sense that the practice of torture is a form of persuasion or coercion , it is clear that rhetoric cannot be viewed only in academic terms. However, the enthymeme based upon logic especially, based upon the syllogism was viewed as the basis of rhetoric. However, since the time of Aristotle, logic has changed. For example, Modal logic has undergone a major development that also modifies rhetoric. He restricted rhetoric to the domain of the contingent or probable: The contemporary neo-Aristotelian and neo-Sophistic positions on rhetoric mirror the division between the Sophists and Aristotle. Neo-Aristotelians generally study rhetoric as political discourse, while the neo-Sophistic view contends that rhetoric cannot be so limited. Rhetorical scholar Michael Leff characterizes the conflict between these positions as viewing rhetoric as a "thing contained" versus a "container". The neo-Aristotelian view threatens the study of rhetoric by restraining it to such a limited field, ignoring many critical applications of rhetorical theory, criticism, and practice. Simultaneously, the neo-Sophists threaten to expand rhetoric beyond a point of coherent theoretical value. Over the past century, people studying rhetoric have tended to enlarge its object domain beyond speech texts. Kenneth Burke asserted humans use rhetoric to resolve conflicts by identifying shared characteristics and interests in symbols. By nature, humans engage in identification , either to identify themselves or another individual with a group. This definition of rhetoric as identification broadened the scope from strategic and overt political persuasion to the more implicit tactics of identification found in an immense range of sources. Influenced by theories of social construction , White argues that culture is "reconstituted" through language. Just as language influences people, people influence language. Language is socially constructed, and depends on the meanings people attach to it. Because language is not rigid and changes depending on the situation, the very usage of language is rhetorical. An author, White would say, is always trying to construct a new world and persuading his or her readers to share that world within the text. Even in the field of science , the practices of which were once viewed as being merely the objective testing and reporting of knowledge, scientists must persuade their audience to accept their findings by sufficiently demonstrating that their study or experiment was conducted

reliably and resulted in sufficient evidence to support their conclusions. The vast scope of rhetoric is difficult to define; however, political discourse remains, in many ways, the paradigmatic example for studying and theorizing specific techniques and conceptions of persuasion, considered by many a synonym for "rhetoric". Because of its associations with democratic institutions, rhetoric is commonly said to flourish in open and democratic societies with rights of free speech , free assembly, and political enfranchisement for some portion of the population. Those who classify rhetoric as a civic art believe that rhetoric has the power to shape communities, form the character of citizens and greatly effect civic life. Rhetoric was viewed as a civic art by several of the ancient philosophers. Aristotle and Isocrates were two of the first to see rhetoric in this light. In his work, Antidosis , Isocrates states, "We have come together and founded cities and made laws and invented arts; and, generally speaking, there is no institution devised by man which the power of speech has not helped us to establish. He further argues in his piece Against the Sophists that rhetoric, although it cannot be taught to just anyone, is capable of shaping the character of man. He writes, "I do think that the study of political discourse can help more than any other thing to stimulate and form such qualities of character. In the words of Aristotle, in the Rhetoric, rhetoric is " According to Aristotle, this art of persuasion could be used in public settings in three different ways. Garver writes, "Rhetoric articulates a civic art of rhetoric, combining the almost incompatible properties of techne and appropriateness to citizens. Because rhetoric is a public art capable of shaping opinion, some of the ancients including Plato found fault in it. They claimed that while it could be used to improve civic life, it could be used equally easily to deceive or manipulate with negative effects on the city. The masses were incapable of analyzing or deciding anything on their own and would therefore be swayed by the most persuasive speeches. Thus, civic life could be controlled by the one who could deliver the best speech. Plato explores the problematic moral status of rhetoric twice: This concern is still maintained to nowadays. More trusting in the power of rhetoric to support a republic, the Roman orator Cicero argued that art required something more than eloquence. A good orator needed also to be a good man, a person enlightened on a variety of civic topics. Modern day works continue to support the claims of the ancients that rhetoric is an art capable of influencing civic life. In his work Political Style, Robert Hariman claims, "Furthermore, questions of freedom, equality, and justice often are raised and addressed through performances ranging from debates to demonstrations without loss of moral content". In his book, When Words Lose Their Meaning, he argues that words of persuasion and identification define community and civic life. He states that words produce "the methods by which culture is maintained, criticized, and transformed". In modern times, rhetoric has consistently remained relevant as a civic art. In speeches, as well as in non-verbal forms, rhetoric continues to be used as a tool to influence communities from local to national levels. As a course of study[edit] Rhetoric as a course of study has evolved significantly since its ancient beginnings. Through the ages, the study and teaching of rhetoric has adapted to the particular exigencies of the time and venue. Rhetoric began as a civic art in Ancient Greece where students were trained to develop tactics of oratorical persuasion, especially in legal disputes. Rhetoric originated in a school of pre-Socratic philosophers known as the Sophists circa BC. Demosthenes and Lysias emerged as major orators during this period, and Isocrates and Gorgias as prominent teachers. Rhetorical education focused on five particular canons: Modern teachings continue to reference these rhetorical leaders and their work in discussions of classical rhetoric and persuasion. Rhetoric was later taught in universities during the Middle Ages as one of the three original liberal arts or trivium along with logic and grammar. With the rise of European monarchs in following centuries, rhetoric shifted into the courtly and religious applications. Augustine exerted strong influence on Christian rhetoric in the Middle Ages, advocating the use of rhetoric to lead audiences to truth and understanding, especially in the church. The study of liberal arts, he believed, contributed to rhetorical study: That is, influential scholars like Ramus argued that the processes of invention and arrangement should be elevated to the domain of philosophy, while rhetorical instruction should be chiefly concerned with the use of figures and other forms of the ornamentation of language. Scholars such as Francis Bacon developed the study of "scientific rhetoric". In the 18th century, rhetoric assumed a more social role, initiating the creation of new education systems. In his most famous work "Lectures on Rhetoric and Belles Lettres", he advocates rhetorical study for common citizens as a resource for social success. The rhetorical studies of ancient Greece

and Rome were resurrected in the studies of the era as speakers and teachers looked to Cicero and others to inspire defense of the new republic. Leading rhetorical theorists included John Quincy Adams of Harvard who advocated the democratic advancement of rhetorical art. Recently, there have been studies conducted examining the rhetoric used in political speech acts to illustrate how political figures will persuade audiences for their own purposes. The American lyceum in particular was seen as both an educational and social institution, featuring group discussions and guest lecturers. Throughout the 20th century, rhetoric developed as a concentrated field of study with the establishment of rhetorical courses in high schools and universities. Courses such as public speaking and speech analysis apply fundamental Greek theories such as the modes of persuasion: Rhetoric has earned a more esteemed reputation as a field of study with the emergence of Communication Studies departments as well as Rhetoric and Composition programs within English departments in universities and in conjunction with the linguistic turn. Rhetorical study has broadened in scope, and is especially utilized by the fields of marketing, politics, and literature. Rhetoric, as an area of study, is concerned with how humans use symbols, especially language, to reach agreement that permits coordinated effort of some sort. Rhetoric, in this sense, how to properly give speeches, played an important role in their training. Rhetoric was soon taught in departments of English as well. But it is fairly clear that while knowledge is primarily concerned with what is commonly known as "truth", rhetoric is primarily concerned with statements and their effects on the audience. The word "rhetoric" may also refer to "empty speak", which reflects an indifference to truth, and in this sense rhetoric is adversarial to knowledge. Plato famously criticized the Sophists for their rhetoric which had persuaded people to sentence his friend Socrates to death regardless of what was true. However, rhetoric is also used in the construction of true arguments, or in identifying what is relevant, the crux of the matter, in a selection of true but otherwise trivial statements. Hence, rhetoric is also closely related to knowledge. Eloquentia Perfecta[edit] Eloquentia Perfecta is a Jesuit rhetoric that revolves around cultivating a person as a whole, as one learns to speak and write for the common good. History[edit] Rhetoric has its origins in Mesopotamia. The Egyptians held eloquent speaking in high esteem, and it was a skill that had a very high value in their society. The "Egyptian rules of rhetoric" also clearly specified that "knowing when not to speak is essential, and very respected, rhetorical knowledge". Their "approach to rhetoric" was thus a "balance between eloquence and wise silence". Their rules of speech also strongly emphasized "adherence to social behaviors that support a conservative status quo" and they held that "skilled speech should support, not question, society". The tradition of Confucianism emphasized the use of eloquence in speaking.

2: Logical Fallacies and the Art of Debate

On the Purity of the Art of Logic: The Shorter and the Longer Treatises (Yale Library of Medieval Philosophy Seri)
[Walter Burley, Mr. Paul Vincent Spade] on www.enganchecubano.com *FREE* shipping on qualifying offers.

Background[edit] Aristotle is generally credited with developing the basics of the system of rhetoric that "thereafter served as its touchstone", [2] influencing the development of rhetorical theory from ancient through modern times. The Rhetoric is regarded by most rhetoricians as "the most important single work on persuasion ever written. The study of rhetoric was contested in classical Greece: The trio saw rhetoric and poetry as tools that were too often used to manipulate others by appealing to emotion and omitting facts. They particularly accused the sophists, including Gorgias and Isocrates , of this manipulation. Plato, particularly, laid the blame for the arrest and the death of Socrates at the feet of sophistical rhetoric. In stark contrast to the emotional rhetoric and poetry of the sophists was a rhetoric grounded in philosophy and the pursuit of enlightenment. Indeed, the first line of the Rhetoric is "Rhetoric is a counterpart antistrophe of dialectic". Dialectic is a tool for philosophical debate; it is a means for skilled audiences to test probable knowledge in order to learn. Conversely, rhetoric is a tool for practical debate; it is a means for persuading a general audience using probable knowledge to resolve practical issues. Dialectic and rhetoric create a partnership for a system of persuasion based on knowledge instead of upon manipulation and omission. English translation[edit] Most English readers in the 20th century relied on four translations of the Rhetoric. The first, by Richard C. Jebb, was published in The fourth standard translation, by Lane Cooper, came out in Published in and translated by George A. Kennedy , a leading classicist and rhetorician, [14] this work is notable for the precision of its translation and for its extensive commentary, notes, and references to modern scholarship on Aristotle and the Rhetoric. It is generally regarded today as the standard scholarly resource on the Rhetoric. Neo-Aristotelianism rhetorical criticism Rhetorical theory and criticism in the first half of the 20th century was dominated by neo-Aristotelian criticism, the tenets of which were grounded in the Rhetoric and were traditionally considered to have been summed up most clearly in by Herbert Wichelns. Hill argues that while Wichelns traditionally gets the credit for summing up Neo-Aristotelian theory, that instead Hoyt Hopewell Hudson is more deserving of this credit. Book I offers a general overview, presenting the purposes of rhetoric and a working definition; it also offers a detailed discussion of the major contexts and types of rhetoric. Book II discusses in detail the three means of persuasion that an orator must rely on: Book III introduces the elements of style word choice, metaphor, and sentence structure and arrangement organization. Some attention is paid to delivery, but generally the reader is referred to the Poetics for more information in that area. Chapter One Aristotle first defines rhetoric as the counterpart antistrophe of dialectic Book 1: He explains the similarities between the two but fails to comment on the differences. Here he introduces the term enthymeme Book 1: Of the pisteis provided through speech there are three parts: He introduces paradigms and syllogisms as means of persuasion. Chapter Three Introduces the three genres of rhetoric: Here he also touches on the "ends" the orators of each of these genres hope to reach with their persuasionsâ€"which are discussed in further detail in later chapters Book 1: Aristotle introduces these three genres by saying that "[t]he kinds of rhetoric are three in number, corresponding to the three kinds of hearers". The five most common are finance, war and peace, national defense, imports and exports, and the framing of laws. Chapter Five Aristotle discusses the different ethical topics of deliberative rhetoric. Aristotle identifies the goal of human action with "happiness" and describes the many factors contributing to it Book 1: Chapter Six This is a continuation of Chapter Five, explaining in greater detail the stoikhea elements of the "good" described in the previous chapter. Chapter Seven Introduces the term koinon of degree. Discusses the "ends" of deliberative rhetoric in relation to the greater good or more advantageous. Chapter Eight Aristotle defines and discusses the four forms of politeia useful in deliberative rhetoric: Chapter Nine This chapter discusses the virtues and concepts of to kalon the honorable included in epideictic rhetoric. Aristotle describes what makes certain topics appropriate or worthy for praise or blame. He also states that it is important to highlight certain traits of the subject of praise. Chapter Ten Aristotle discusses what syllogisms should be derived from kategoria

accusations and apologia defenses for judicial rhetoric. He also introduces the wrongdoing, which is useful for judicial rhetoric. Chapter Eleven This chapter discusses the many different types of hedone pleasure useful for judicial rhetoric. Aristotle states these as the reasons for people doing wrong. Aristotle emphasizes the importance of willingness, or intentions, of wrongdoings. Chapter Thirteen Aristotle classifies all acts that are just and unjust defined in judicial rhetoric. He also distinguishes what kinds of actions are fair and unfair with being just. Chapter Fourteen This chapter parallels the koinon described in Chapter Seven. Aristotle is clarifying the magnitude in relation to questions of "wrongdoing" meant for judicial rhetoric. Chapter Fifteen Aristotle summarizes the arguments available to a speaker in dealing with evidence that supports or weakens a case. These atechnic pisteis contain laws, witnesses, contracts, tortures, and oaths. Specifically, Aristotle refers to the effect of ethos and pathos on an audience since a speaker needs to exhibit these modes of persuasion before that audience. Chapter 1[edit] In Chapter 1, Aristotle notes that emotions cause men to change their opinions and judgments. As such, emotions have specific causes and effects Book 2. A speaker can therefore employ this understanding to stimulate particular emotions from an audience. However, Aristotle states that along with pathos, the speaker must also exhibit ethos, which for Aristotle encompasses phronesis , arete , and eunoia Book 2. Chapters 2â€"11[edit] Chapters 2â€"11 explore those emotions useful to a rhetorical speaker. Aristotle provides an account on how to arouse these emotions in an audience so that a speaker might be able to produce the desired action successfully Book 2. Aristotle arranges the discussion of the emotions in opposing pairs, such as anger and calmness or friendliness and enmity. It is pertinent to understand all the components in order to stimulate a certain emotion within another person. For example, to Aristotle, anger results from the feeling of belittlement Book 2. Those who become angry are in a state of distress due to a foiling of their desires Book 2. The angry direct their emotion towards those who insult the latter or that which the latter values. These insults are the reasoning behind the anger Book 2. In this way, Aristotle proceeds to define each emotion, assess the state of mind for those experiencing the emotion, determine to whom people direct the emotion, and reveal their reasoning behind the emotion. Chapters 12â€"17[edit] George A. Kennedy in On Rhetoric: A Theory of Civic Discourse remarks that ethos predominantly refers to the "moral character" of actions and mind. On page , Kennedy reveals the purpose of chapters 12â€"17 as a demonstration to the speaker of "how his ethos must attend and adjust to the ethos of varied types of auditor if he is to address them successfully. Yet, in these chapters, Aristotle analyzes the character of different groups of people so that a speaker might adjust his portrayed ethos in order to influence the audience. First, he describes the young as creatures of desire, easily changeable and swiftly satisfied. The young hate to be belittled because they long for superiority Book 2. According to Aristotle, the old are distrustful, cynical, and small-minded for unlike the young their past is long and their future short Book 2. The old do not act on a basis of desire but rather act for profit Book 2. Those in the prime of life represent the mean to Aristotle, possessing the advantages of both old and young without excess or deficiency Book 2. Chapters 18â€"26[edit] Although Book II primarily focuses on ethos and pathos, Aristotle discusses paradigm and enthymeme as two common modes of persuasion. There exist two kinds of paradigm: Maxims , or succinct, clever statements about actions, serve as the conclusion of enthymemes Book 2. In choosing a maxim, one should assess the audience views and employ a fitting maxim Book 2. In all of these techniques, Aristotle considers popular wisdom and audiences as a central guide. The transition concludes the discussion of pathos, ethos, paradigms, enthymemes, and maxims so that Book III may focus on delivery, style, and arrangement. However, Book III contains informative material on lexis style which refers to the "way of saying" in Chapters and taxis , which refers to the arrangement of words in Chapters Aristotle argues that voice should be used to most accurately represent the given situation as exemplified by poets Bk. Metaphors are also addressed as a skill that cannot be taught and should bestow "verbal beauty" Bk. Chapter 3 Deals with "frigid" language. This occurs when one uses elaborate double words, archaic , and rare words, added descriptive words or phrases, and inappropriate metaphors Bk. Chapter 4 Discusses another figurative part of speech, the simile also known as an eikon. Similes are only occasionally useful in speech due to their poetic nature and similarity to metaphor. Chapter 5 Addresses how to speak properly by using connectives, calling things by their specific name, avoiding terms with ambiguous meanings, observing the gender of nouns, and correctly using singular and plural words Bk.

Chapter 6 Gives practical advice on how to amplify language by using onkos expansiveness and syntomia conciseness. Not using the term circle, but giving its definition, would exemplify onkos, and using the word as the definition would exemplify syntomia Bk. Chapter 7 Aristotle expands on the use of appropriate style in addressing the subject. Aristotle stresses emotion, credibility, genus like age , and moral state as important considerations Bk. Chapter 8 Rhythm should be incorporated into prose to make it well "rhythmed" but not to the extent of a poem Bk. Chapter 9 Looks at periodic style and how it should be seen as a rhythmical unit and used to complete a thought to help understand meaning Bk. Chapter 10 Aristotle further highlights the metaphor and addresses how it brings about learning and enables visualization Bk. Chapter 11 Explains why devices of style can defamiliarize language.

"Note on Maimonides' Treatise on the Art of Logic," Studies in Platonic Political Philosophy, University of Chicago Press, Excerpt: Toward the end of chapter 11 and in chapter 13, Maimonides begins to refer again to the Arabic grammarian.

No deduction has two negative premises No deduction has two particular premises A deduction with an affirmative conclusion must have two affirmative premises A deduction with a negative conclusion must have one negative premise. A deduction with a universal conclusion must have two universal premises He also proves the following metatheorem: All deductions can be reduced to the two universal deductions in the first figure. His proof of this is elegant. First, he shows that the two particular deductions of the first figure can be reduced, by proof through impossibility, to the universal deductions in the second figure: This proof is strikingly similar both in structure and in subject to modern proofs of the redundancy of axioms in a system. Many more metatheoretical results, some of them quite sophisticated, are proved in Prior Analytics I. In contrast to the syllogistic itself or, as commentators like to call it, the assertoric syllogistic , this modal syllogistic appears to be much less satisfactory and is certainly far more difficult to interpret. Aristotle gives these same equivalences in On Interpretation. However, in Prior Analytics, he makes a distinction between two notions of possibility. He then acknowledges an alternative definition of possibility according to the modern equivalence, but this plays only a secondary role in his system. Most often, then, the questions he explores have the form: A premise can have one of three modalities: Aristotle works through the combinations of these in order: Two necessary premises One necessary and one assertoric premise Two possible premises One assertoric and one possible premise One necessary and one possible premise Though he generally considers only premise combinations which syllogize in their assertoric forms, he does sometimes extend this; similarly, he sometimes considers conclusions in addition to those which would follow from purely assertoric premises. Since this is his procedure, it is convenient to describe modal syllogisms in terms of the corresponding non-modal syllogism plus a triplet of letters indicating the modalities of premises and conclusion: The conversion rules for necessary premises are exactly analogous to those for assertoric premises: Aristotle generalizes this to the case of categorical sentences as follows: This leads to a further complication. Such propositions do occur in his system, but only in exactly this way, i. Such propositions appear only as premises, never as conclusions. He does not treat this as a trivial consequence but instead offers proofs; in all but two cases, these are parallel to those offered for the assertoric case. The exceptions are Baroco and Bocardo, which he proved in the assertoric case through impossibility: A very wide range of reconstructions has been proposed: Malink , however, offers a reconstruction that reproduces everything Aristotle says, although the resulting model introduces a high degree of complexity. This subject quickly becomes too complex for summarizing in this brief article. From a modern perspective, we might think that this subject moves outside of logic to epistemology. However, readers should not be misled by the use of that word. We have scientific knowledge, according to Aristotle, when we know: The remainder of Posterior Analytics I is largely concerned with two tasks: Aristotle first tells us that a demonstration is a deduction in which the premises are: Aristotle clearly thinks that science is knowledge of causes and that in a demonstration, knowledge of the premises is what brings about knowledge of the conclusion. The fourth condition shows that the knower of a demonstration must be in some better epistemic condition towards them, and so modern interpreters often suppose that Aristotle has defined a kind of epistemic justification here. However, as noted above, Aristotle is defining a special variety of knowledge. Comparisons with discussions of justification in modern epistemology may therefore be misleading. In Posterior Analytics I. Whatever is scientifically known must be demonstrated. The premises of a demonstration must be scientifically known. They then argued that demonstration is impossible with the following dilemma: If the premises of a demonstration are scientifically known, then they must be demonstrated. The premises from which each premise are demonstrated must be scientifically known. Either this process continues forever, creating an infinite regress of premises, or it comes to a stop at some point. If it continues forever, then there are no first premises from which the subsequent ones are demonstrated, and so nothing is demonstrated. On the other

hand, if it comes to a stop at some point, then the premises at which it comes to a stop are undemonstrated and therefore not scientifically known; consequently, neither are any of the others deduced from them. Therefore, nothing can be demonstrated. Aristotle does not give us much information about how circular demonstration was supposed to work, but the most plausible interpretation would be supposing that at least for some set of fundamental principles, each principle could be deduced from the others. Some modern interpreters have compared this position to a coherence theory of knowledge. However, he thinks both the agnostics and the circular demonstrators are wrong in maintaining that scientific knowledge is only possible by demonstration from premises scientifically known: To solve this problem, Aristotle needs to do something quite specific. It will not be enough for him to establish that we can have knowledge of some propositions without demonstrating them: Moreover and obviously , it is no solution to this problem for Aristotle simply to assert that we have knowledge without demonstration of some appropriate starting points. He does indeed say that it is his position that we have such knowledge An. There is wide disagreement among commentators about the interpretation of his account of how this state is reached; I will offer one possible interpretation. What he is presenting, then, is not a method of discovery but a process of becoming wise. The kind of knowledge in question turns out to be a capacity or power dunamis which Aristotle compares to the capacity for sense-perception: Likewise, Aristotle holds, our minds have by nature the capacity to recognize the starting points of the sciences. In the case of sensation, the capacity for perception in the sense organ is actualized by the operation on it of the perceptible object. Similarly, Aristotle holds that coming to know first premises is a matter of a potentiality in the mind being actualized by experience of its proper objects: So, although we cannot come to know the first premises without the necessary experience, just as we cannot see colors without the presence of colored objects, our minds are already so constituted as to be able to recognize the right objects, just as our eyes are already so constituted as to be able to perceive the colors that exist. It is considerably less clear what these objects are and how it is that experience actualizes the relevant potentialities in the soul. Aristotle describes a series of stages of cognition. First is what is common to all animals: Next is memory, which he regards as a retention of a sensation: Even fewer have the next capacity, the capacity to form a single experience empeiria from many repetitions of the same memory. Finally, many experiences repeated give rise to knowledge of a single universal katholou. This last capacity is present only in humans. Definitions The definition horos, horismos was an important matter for Plato and for the Early Academy. External sources sometimes the satirical remarks of comedians also reflect this Academic concern with definitions. Aristotle himself traces the quest for definitions back to Socrates. What has an essence, then? In general, however, it is not individuals but rather species eidos: A species is defined by giving its genus genos and its differentia diaphora: As an example, human might be defined as animal the genus having the capacity to reason the differentia. However, not everything essentially predicated is a definition. Such a predicate non-essential but counterpredicating is a peculiar property or proprium idion. Aristotle sometimes treats genus, peculiar property, definition, and accident as including all possible predications e. Later commentators listed these four and the differentia as the five predicables, and as such they were of great importance to late ancient and to medieval philosophy e. Just what that doctrine was, and indeed just what a category is, are considerably more vexing questions. They also quickly take us outside his logic and into his metaphysics. Here are two passages containing such lists: These are ten in number: An accident, a genus, a peculiar property and a definition will always be in one of these categories. To give a rough idea, examples of substance are man, horse; of quantity: Categories 4, 1b25â€"2a4, tr. Ackrill, slightly modified These two passages give ten-item lists, identical except for their first members. Here are three ways they might be interpreted: First, the categories may be kinds of predicate: On this interpretation, the categories arise out of considering the most general types of question that can be asked about something: Thus, the categories may rule out certain kinds of question as ill-formed or confused. Second, the categories may be seen as classifications of predications, that is, kinds of relation that may hold between the predicate and the subject of a predication. For Aristotle, the relation of predicate to subject in these two sentences is quite different in this respect he differs both from Plato and from modern logicians. The categories may be interpreted as ten different ways in which a predicate may be related to its subject. Third, the categories may be seen as kinds of

entity, as highest genera or kinds of thing that are. A given thing can be classified under a series of progressively wider genera: Socrates is a human, a mammal, an animal, a living being. The categories are the highest such genera. Each falls under no other genus, and each is completely separate from the others. Which of these interpretations fits best with the two passages above? The answer appears to be different in the two cases.

4: A Treatise on Logic

*The longer treatise on the purity of the art of logic, tract 1: On the properties of terms [Gualterus Burlaeus] on www.enganchecubano.com *FREE* shipping on qualifying offers.*

Debate is, fortunately or not, an exercise in persuasion, wit, and rhetoric, not just logic. Instead, debaters have to bring together various facts, insights, and values that others share or can be persuaded to accept, and then show that those ideas lead more or less plausibly to a conclusion. Logic is a useful tool in this process, but it is not the only tool -- after all, "plausibility" is a fairly subjective matter that does not follow strict logical rules. The trick is not getting caught. So why learn logical fallacies at all? I can think of a couple of good reasons. First, it makes you look smart. If you can not only show that the opposition has made an error in reasoning, but you can give that error a name as well in Latin! Second, and maybe more importantly, pointing out a logical fallacy is a way of removing an argument from the debate rather than just weakening it. On the other hand, if you can show that the original argument actually commits a logical fallacy, you put the opposition in the position of justifying why their original argument should be considered at all. Logic as a form of rhetoric Unfortunately, the account I have just given is a bit idealized. State the name of the logical fallacy, preferably in both Latin and English, and make sure you use the phrase "logical fallacy. But this is just the logical fallacy of argumentum ad populum , appeal to public opinion! But be careful -- you have to do this without sounding pedantic. Give a really obvious example of why the fallacy is incorrect. It is especially important to avoid obvious logical fallacies like the one above argumentum ad populum , because they are vulnerable to such powerful and persuasive refutations. But sometimes, a logical fallacy -- or at least an unjustified logical leap -- is unavoidable. And there are some types of argument that are listed as logical fallacies in logic textbooks, but that are perfectly acceptable in the context of the rules of debate. The most important guideline for committing such fallacies yourself is to know when you are doing it, and to be prepared to justify yourself later if the opposition tries to call you down for it. For examples of logical fallacies that can sometimes be acceptable in the context of debate, see ad ignorantiam , ad logicam , complex question , slippery slope , straw man , and tu quoque in the list below. The list of logical fallacies What follows is not a comprehensive list of all the known logical fallacies. Nor is this intended as a rigorous philosophical treatise on logical reasoning. Critical page ; I owe a debt to these pages for reminding me of a number of fallacies I had forgotten about. Argumentum ad antiquitatem the argument to antiquity or tradition. Because an argumentum ad antiquitatem is easily refuted by simply pointing it out, in general it should be avoided. For instance, you might make an evolutionary argument to the effect that the prevalence of a particular practice in existing societies is evidence that societies that failed to adopt it were weeded out by natural selection. This argument is weak, but better than the fallacy alone. Argumentum ad hominem argument directed at the person. This is the error of attacking the character or motives of a person who has stated an idea, rather than the idea itself. The most obvious example of this fallacy is when one debater maligns the character of another debater e. A more typical manifestation of argumentum ad hominem is attacking a source of information -- for example, responding to a quotation from Richard Nixon on the subject of free trade with China by saying, "We all know Nixon was a liar and a cheat, so why should we believe anything he says? In all of these cases, the relevant question is not who makes the argument, but whether the argument is valid. It is always bad form to use the fallacy of argumentum ad hominem. But there are some cases when it is not really a fallacy, such as when one needs to evaluate the truth of factual statements as opposed to lines of argument or statements of value made by interested parties. If someone has an incentive to lie about something, then it would be naive to accept his statements about that subject without question. For example, someone might argue that global warming is certainly occurring because nobody has demonstrated conclusively that it is not. But failing to prove the global warming theory false is not the same as proving it true. Whether or not an argumentum ad ignorantiam is really fallacious depends crucially upon the burden of proof. In an American courtroom, where the burden of proof rests with the prosecution, it would be fallacious for the prosecution to argue, "The defendant has no alibi, therefore he must have committed the crime. In debate, the proposing team in a debate round is usually but not always

assumed to have the burden of proof, which means that if the team fails to prove the proposition to the satisfaction of the judge, the opposition wins. But the burden of proof can sometimes be shifted; for example, in some forms of debate, the proposing team can shift the burden of proof to the opposing team by presenting a prima facie case that would, in the absence of refutation, be sufficient to affirm the proposition. Still, the higher burden generally rests with the proposing team, which means that only the opposition is in a position to make an accusation of argumentum ad ignorantiam with respect to proving the proposition. Argumentum ad logicam argument to logic. This is the fallacy of assuming that something is false simply because a proof or argument that someone has offered for it is invalid; this reasoning is fallacious because there may be another proof or argument that successfully supports the proposition. This fallacy often appears in the context of a straw man argument. This is another case in which the burden of proof determines whether it is actually a fallacy or not. If a proposing team fails to provide sufficient support for its case, the burden of proof dictates they should lose the debate, even if there exist other arguments not presented by the proposing team that could have supported the case successfully. Moreover, it is common practice in debate for judges to give no weight to a point supported by an argument that has been proven invalid by the other team, even if there might be a valid argument the team failed to make that would have supported the same point; this is because the implicit burden of proof rests with the team that brought up the argument. For further commentary on burdens of proof, see argumentum ad ignorantiam , above. Argumentum ad misericordiam argument or appeal to pity. The English translation pretty much says it all. How could we be so cruel as not to help them? It is, of course, perfectly legitimate to point out the severity of a problem as part of the justification for adopting a proposed solution. The fallacy comes in when other aspects of the proposed solution such as whether it is possible, how much it costs, who else might be harmed by adopting the policy are ignored or responded to only with more impassioned pleas. You should not call your opposition down for committing this fallacy unless they rely on appeals to pity to the exclusion of the other necessary arguments. It is perfectly acceptable to use appeal to pity in order to argue that the benefits of the proposed policy are greater than they might at first appear and hence capable of justifying larger costs. Argumentum ad nauseam argument to the point of disgust; i. This is the fallacy of trying to prove something by saying it again and again. But no matter how many times you repeat something, it will not become any more or less true than it was in the first place. Of course, it is not a fallacy to state the truth again and again; what is fallacious is to expect the repitition alone to substitute for real arguments. Nonetheless, this is a very popular fallacy in debate, and with good reason: The appropriate time to mention argumentum ad nauseam in a debate round is when the other team has made some assertion, failed to justify it, and then stated it again and again. This fallacy is very similar to argumentum ad populum , the appeal to the people or to popularity. When a distinction is made between the two, ad populum is construed narrowly to designate an appeal to the opinions of people in the immediate vicinity, perhaps in hope of getting others such as judges to jump on the bandwagon, whereas ad numerum is used to designate appeals based purely on the number of people who hold a particular belief. The distinction is a fine one, and in general the terms can be used interchangeably in debate rounds. Argumentum ad populum argument or appeal to the public. This is the fallacy of trying to prove something by showing that the public agrees with you. For an example, see above. This fallacy is nearly identical to argumentum ad numerum , which you should see for more details. Argumentum ad verecundiam argument or appeal to authority. This fallacy occurs when someone tries to demonstrate the truth of a proposition by citing some person who agrees, even though that person may have no expertise in the given area. Of course, it is not a fallacy at all to rely on authorities whose expertise relates to the question at hand, especially with regard to questions of fact that could not easily be answered by a layman -- for instance, it makes perfect sense to quote Stephen Hawking on the subject of black holes. In general, there is nothing wrong with doing so. Even if the person quoted has no particular expertise in the area, he may have had a particularly eloquent way of saying something that makes for a more persuasive speech. In general, debaters should be called down for committing argumentum ad verecundiam only when a they rely on an unqualified source for information about facts without other qualified sources of verification, or b they imply that some policy must be right simply because so-and-so thought so. Circulus in demonstrando circular argument. Circular argumentation occurs when someone uses what they are trying to prove as part of

the proof of that thing. Here is one of my favorite examples in pared down form: They are always illegitimate, though, and pointing them out in a debate round looks really good if you can do it. The best strategy for pointing out a circular argument is to make sure you can state clearly the proposition being proven, and then pinpoint where that proposition appears in the proof. A good summing up statement is, "In other words, they are trying to tell us that X is true because X is true! A complex question is a question that implicitly assumes something to be true by its construction, such as "Have you stopped beating your wife? Complex questions are a well established and time-honored practice in debate, although they are rarely so bald-faced as the example just given. Complex questions usually appear in cross-examination or points of information when the questioner wants the questionee to inadvertently admit something that she might not admit if asked directly. For instance, one might say, "Inasmuch as the majority of black Americans live in poverty, do you really think that self-help within the black community is sufficient to address their problems? This is a sneaky tactic, but debate is sometimes a sneaky business. The majority of blacks do not live in poverty. Get your facts straight before you interrupt me again! This is the familiar fallacy of mistaking correlation for causation -- i. It is always fallacious to suppose that there is a causative link between two things simply because they coexist. But a correlation is usually considered acceptable supporting evidence for theories that argue for a causative link between two things. In debate rounds, what this means is that it is acceptable to demonstrate a correlation between two phenomenon and to say one caused the other if you can also come up with convincing reasons why the correlation is no accident. Cum hoc ergo propter hoc is very similar to post hoc ergo propter hoc , below. The two terms can be used almost interchangeably, post hoc as it is affectionately called being the preferred term. Dicto simpliciter spoken simply, i. This is the fallacy of making a sweeping statement and expecting it to be true of every specific case -- in other words, stereotyping. As the example indicates, dicto simpliciter is fairly common in debate rounds. Most of the time, it is not necessary to call an opposing debater down for making this fallacy -- it is enough to point out why the sweeping generalization they have made fails to prove their point. Since everybody knows what a sweeping generalization is, using the Latin in this case will usually sound condescending.

5: John Stuart Mill's System of Logic

An Introduction to the Study of Philosophy With an Outline Treatise on Logic by E. V. Gerhart Principles of Logic by George Hayward Joyce A Class Room Logic, Deductive and Inductive With Special Application to the Science and Art of Teaching by George Hastings McNair.

THERE is as great diversity among authors in the modes which they have adopted of defining logic, as in their treatment of the details of it. This is what might naturally be expected on any subject on which writers have availed themselves of the same language as a means of delivering different ideas. Ethics and jurisprudence are liable to the remark in common with logic. Almost every writer having taken a different view of some of the particulars which these branches of knowledge are usually understood to include, each has so framed his definition as to indicate beforehand his own peculiar tenets, and sometimes to beg the question in their favour. This diversity is not so much an evil to be complained of, as an inevitable and in some degree a proper result of the imperfect state of those sciences. It is not to be expected that there should be agreement about the definition of anything, until there is agreement about the thing itself. To define, is to select from among all the properties of a thing, those which shall be understood to be designated and declared by its name; and the properties must be well known to us before we can be competent to determine which of them are fittest to be chosen for this purpose. Accordingly, in the case of so complex an aggregation of particulars as are comprehended in anything which can be called a science, the definition we set out with is seldom that which a more extensive knowledge of the subject shows to be the most appropriate. Until we know the particulars themselves, we cannot fix upon the most correct and compact mode of circumscribing, them by a general description. It was not until after an extensive and accurate acquaintance with the details of chemical phenomena, that it was found possible to frame a rational definition of chemistry; and the definition of the science of life and organisation is still a matter of dispute. So long as the sciences are imperfect, the definitions must partake of their imperfection; and if the former are progressive, the latter ought to be so too. As much, therefore, as is to be expected from a definition placed at the commencement of a subject, is that it should define the scope of our inquiries: The reader is at liberty to object to it as a definition of logic; but it is at all events a correct definition of the subject of these volumes. Logic has often been called the Art of Reasoning. A writer who has done more than any other person to restore this study to the rank from which it had fallen in the estimation of the cultivated class in our own country, has adopted the above definition with an amendment; he has defined Logic to be the Science, as well as the Art, of reasoning; meaning by the former term, the analysis of the mental process which takes place whenever we reason, and by the latter, the rules, grounded on that analysis, for conducting the process correctly. There can be no doubt as to the propriety of the emendation. A right understanding of the mental process itself, of the conditions it depends on, and the steps of which it consists, is the only basis on which a system of rules, fitted for the direction of the process, can possibly be founded. Art necessarily presupposes knowledge; art, in any but its infant state, presupposes scientific knowledge: So complicated are the conditions which govern our practical agency, that to enable one thing to be done, it is often requisite to know the nature and properties of many things. Logic, then, comprises the science of reasoning, as well as an art, founded on that science. But the word Reasoning, again, like most other scientific terms in popular use, abounds in ambiguities. In another of its senses, to reason is simply to infer any assertion, from assertions already admitted and in this sense induction is as much entitled to be called reasoning as the demonstrations of geometry. Writers on logic have generally preferred the former acceptation of the term: I do this by virtue of the right I claim for every author, to give whatever provisional definition he pleases of his own subject. But sufficient reasons will, I believe, unfold themselves as we advance, why this should be not only the provisional but the final definition. It involves, at all events, no arbitrary change in the meaning of the word; for, with the general usage of the English language, the wider signification, I believe, accords better than the more restricted one. But Reasoning, even in the widest sense of which the word is susceptible, does not seem to comprehend all that is included, either in the best, or even in the most current, conception of the scope and province of our science. The employment of the word Logic to

denote the theory of Argumentation, is derived from tho Aristotelian, or, as they are commonly termed, the scholastic, logicians. Yet even with them, in their systematic treatises, Argumentation was the subject only of the third part: By some, indeed these previous topics were professedly introduced only on account of their connexion with reasoning, and as a preparation for the doctrine and rules of the syllogism. Yet they were treated with greater minuteness, and dwelt on at greater length, than was required for that purpose alone. More recent writers on logic have generally understood the term as it was employed by the able author of the Port Royal Logic; viz. Nor is this acceptation confined to books, and scientific inquiries. Even in ordinary conversation, the ideas connected with the word Logic include at least precision of language, and accuracy of classification: Again, a man is often called a great logician, or a man of powerful logic. Whether, therefore, we conform to the practice of those who have made the subject their particular study, or to that of popular writers and common discourse, the province of logic will include several operations of the intellect not usually considered to fall within the meaning of the terms Reasoning and Argumentation. These various operations might be brought within the compass of the science, and the additional advantage be obtained of a very simple definition, if, by an extension of the term, sanctioned by high authorities, we were to define logic as the science which treats of the operations of the human understanding in the pursuit of truth. For to this ultimate end, naming, classification, definition, and all other operations over which logic has ever claimed jurisdiction, are j essentially subsidiary. They may I all be regarded as contrivances for enabling a person to know the truths which are needful to him, and to know them at the precise moment at which they are needful. Other purposes, indeed, are also served by these operations; for instance, that of imparting our knowledge to others. But, viewed with regard to this purpose, they have never been considered as within the province of the logician. Logic takes cognisance of our intellectual operations, only as they conduce to our own knowledge, and to our command over that knowledge for our own uses. If there were but one rational being in the universe, that being might be a perfect logician; and the science and art of logic would be the same for that one person as for the whole human race. But, if the definition which we formerly examined included too little, that which is now suggested has the opposite fault of including too much. Truths are known to us in two ways: The former are the subject of Intuition, or Consciousness [I use these terms indiscriminately, because, tor the purpose in view, there is no need for making any distinction between them. But metaphysicians usually restrict the name Intuition to the direct knowledge we are supposed to base of things external to our minds, and Consciousness to our own mental phenomena] the latter of Inference The truths known by intuition are the original premises from which all others are inferred. Our assent to the conclusion being grounded on the truth of the premises, we never could arrive at any knowledge by reasoning, unless something could be known antecedently to all reasoning. Examples of truths known to us by immediate consciousness, are our own bodily sensations and mental feelings. I know directly, and of my own knowledge, that I was vexed yesterday or that I am hungry to-day. Examples of truth-s which we know only by way of inference, are occurrences which took place while we were absent, the events recorded in history, or the theorems of mathematics. The two former we infer from the testimony adduced, or from the traces of those past occurrences which still exist; the latter, from the premises laid down in books of geometry, under the title of definitions and axioms. Whatever we are capable of knowing must belong to the one class or to the other; must be in the number of the primitive data, or of the conclusions which can be drawn from these. With the original data, or ultimate premises of our knowledge; with their number or nature, the mode in which they are obtained, or the tests by which they may be distinguished; logic, in a direct way at least, has, in the sense in which I conceive the science, nothing to do. These questions are partly not a subject of science at all, partly that of a very different science. Whatever is known to us by consciousness, is known beyond possibility of question. What one sees or feels, whether bodily or mentally, one cannot but be sure that one sees or feels. No science is required for the purpose of establishing such truths; no rules of art can render our knowledge of them more certain than it is in itself. There is no logic for this portion of our knowledge. But we may fancy that we see or feel what we in reality infer. A truth, or supposed truth, which is really the result of a very rapid inference, may seem to be apprehended intuitively. It has long been agreed by thinkers of the most opposite schools, that this mistake is actually made in so familiar an instance as that of the eyesight. There is nothing of which we appear to

ourselves to be more directly conscious, than the distance of an object from us. The perception of distance by the eve, which seems so like intuition, is thus, in reality, an inference grounded on experience; an inference, too, which we learn to make; and which we make with more and more correctness as our experience increases; though in familiar cases it takes place so rapidly as to appear exactly on a par with those perceptions of sight which are really intuitive, our perceptions of colour. Of the science, therefore, which expounds the operations of the human understanding in the pursuit of truth, one essential part is the inquiry: What are the facts which are the objects of intuition or consciousness, and what are these which we merely infer? But this inquiry has never been considered a portion of logic. Its place is in another and a perfectly distinct department of science, to which the name metaphysics more particularly belongs: To this science appertain the great and much debated questions of the existence of matter; the existence of spirit, and of a distinction between it and matter; the reality of time and space, as things without the mind, and distinguishable from the objects which are said to exist in them. For in the present state of the discussion on these topics, it is almost universally allowed that the existence of matter or of spirit, of space or of time, is in its nature insusceptible of being proved; and that if anything is known of them, it must be by immediate intuition. To the same science belong the inquiries into the nature of Conception, Perception, Memory, and Belief; all of which are operations of the understanding in the pursuit of truth; but with which, as phenomena of the mind, or with the possibility which may or may not exist of analysing ally of them into simpler phenomena, the logician as such has no concern. To this science must also be referred the following, and all analogous questions: To what extent our intellectual faculties and our emotions are innate - to what extent the result of association: Whether God, and duty, are realities, the existence of which is manifest to us a priori by the constitution of our rational faculty; or whether our ideas of them are acquired notions, the origin of which we are able to trace and explain; and the reality of the objects themselves a question not of consciousness or intuition, but of evidence and reasoning. The province of logic must be restricted to that portion of our knowledge which consists of inferences from truths previously known; whether those antecedent data be general propositions or particular observations and perceptions. Logic is not the science of Belief, but the science of Proof, or Evidence. In so far as belief professes to be founded on proof, the office of logic is to supply a test for ascertaining whether or not the belief is well grounded. With the claims which any proposition has to belief on the evidence of consciousness, that is, without evidence in the proper sense of the word, logic has nothing to do. By far the greatest portion of our knowledge, whether of general truths or of particular facts, being avowedly matter of inference, nearly the whole, not only of science, but of human conduct, is amenable to the authority of logic. To draw inferences has been said to be the great business of life. Every one has daily, hourly, and momentary need of ascertaining facts which he has not directly observed; not from any general purpose of adding to his stock of knowledge, but because the facts themselves are of importance to his interests or to his occupations. The business of the magistrate, of the military commander, of the navigator, of the physician, of the agriculturist, is merely to Jud ,e of evidence, an l to act accordingly. They all have to ascertain certain facts, in order that they may afterwards apply certain rules, either devised by themselves, or prescribed for their guidance by others; and as they do this well or ill, so they discharge well or ill the duties of their several callings. It is the only occupation in which the mind never ceases to be engaged; and is the subject, not of logic, but of knowledge in general. Logic, however, is not the same thing with knowledge, though the field of logic is coextensive with the field of knowledge. Logic is the common judge and arbiter of all particular investigations. It does not undertake to find evidence, but to determine whether it has been found. Logic neither observes, nor invents, nor discovers; but judges. It is no part of the business of logic to inform the surgeon what appearances are found to accompany a violent death. This he must learn from his own experience and observation, or from that of others, his predecessors in his peculiar pursuit. But logic sits in judgment on the sufficiency of that observation and experience to justify his rules, and on the sufficiency of his rules to justify his conduct. It does not give him proofs, but teaches him what makes them proofs, and how he is to judge of them. It does not teach that any particular fact proves any others but points out to what conditions all facts must conform, in order that they may prove other facts. To decide whether any given fact fulfils these conditions, or whether facts can be found which fulfil them in a given case, belongs exclusively to the particular art or science, or to our knowledge of the particular subject. It

is in this sense that logic is, what it was so expressively called by the schoolmen and by Bacon, ars artium; the science of science itself. All science consists of data and conclusions from those data, of proofs and what they prove: If there be any such indispensable relations, and if these can be precisely determined, every particular branch of science, as well as every individual in the guidance of his conduct, is bound to conform to those relations, under the penalty of making false inferences - of drawing conclusions which are not grounded in the realities of things. Whatever has at any time been concluded justly, whatever knowledge has been acquired otherwise than by immediate intuition, depended on the observance of the laws which it is the province of logic to investigate. If the conclusions are just, and the knowledge real, those laws, whether known or not, have been observed.

6: Aristotle's Rhetoric (Stanford Encyclopedia of Philosophy)

Book Reviews of such exactitude. By examining a more reliable text of Maimonides' Treatise on the Art of Logic than was used by some of his predecessors, Kraemer is able to correct.

THE following work has grown out of my necessities and my experience as a teacher. When, several years ago, I accepted a professorship, the duties of which required me to teach Logic, I could nowhere find a text-book that seemed to me to satisfy the demands of the science. Nor was this feeling peculiar to myself. Arguments that commend themselves to any untaught mind as valid and practically important, have no place in a system that professedly includes all reasoning whatever; and an attempt to reduce to its technical forms the first few pages of any scientific work, has generally ended in failure and disgust. Of all the efforts which have recently been made to remedy this deficiency, two can be considered as requiring notice in this place: The work of Mr. De Morgan has earned a name in his own department mathematics , which scholars hereafter will be pleased to remember and contemplate. But philosophy, in any of its departments, is not his calling. His theory is essentially numerical. He measures every thing by numerical quantity rather than logical. In this case, X, Y and Z, 2 X and X2, are assumed as representing simply number; that is, a number of units. Now, units have no individual properties â€"nothing to distinguish one from another. But the words or symbols used in Logic represent the conceptions that we form of objects of thought, which are not units merely, but individuals also, having each of them inseparable and peculiar properties of their own, upon which not only their adequate conception, but any use which we can make of that conception in the Formula, whether of mediate or of immediate deduction, depends. This fact has been overlooked in Prof. Perhaps the best test of any theory, is a comparison of its deductions with the obvious facts and first principles of knowledge. Philosophy may undertake to correct the common sense notions of mankind, but Logic cannot. And with how much success philosophy can pursue such an attempt we will not now undertake to decide. But in this case it cannot succeed. The conclusion, if established, would be generalized at once-as in fact it ought to be-and we should have the doctrine that identity depends upon the separable accidents; and then all science, all knowledge, ethics, and religion, too, will be afloat and dissolved into fragments. He is not the same man to-day that he was yesterday â€" is not bound to fulfil the contracts of yesterday, or to suffer the penalty due to its transgression. A theory that not only gives such results, but openly avows them, may be safely considered ab absurdo. His rank will undoubtedly be in the first class â€"with Aristotle, Plato, Descartes, Locke, and Cousin-the few great names that stud the galaxy of history. For an acquaintance with the learning and works of others in the department of speculative philosophy, he stands unrivalled, and probably will never be surpassed. But I have not been able to form any such high estimate of his attempts at originality. He assumes that there may be affirmative judgments with distributed predicates. But, as I have showr Part I, chap. But, again, he assumes that there may be negative judgments with undistributed predicates. To this I have given what I think will be found a sufficient answer in p. A subject is excluded from a Predicate only because it has not the Essentia of the class-conception denoted by that predicate. But the Essentia of one part of the individuals contained in it, can never be different from that of another. Hence, whatever would exclude a subject from a part of the predicate-that is, the predicate as an undistributed termwould exclude it for the whole of the predicate as a distributed term. But believing as I do, and for the reasons given, that his theory of quantification is fundamentally wrong, I have adhered to the old doctrine, so modifying the statement and exposition of it as to provide for the cases which he had regarded as demanding the new theory. It will also be observed, that in the following treatise I have made more account of Method than recent writers have been generally inclined to do. Many of them, in fact, have omitted it entirely. Vii properly denoted by the word Method, and in thus giving a practical direction and applicability to the whole study. If Logic is as CousIN has remarked,-" the Mathematics of thought," it must comprehend not only an analysis of the Formula which we use in thinking, but also the methods of the successful application of these Formulae, and the discussion of Methods will require some consideration of the Matter to which they are to be applied, and the faculties by which we apply them. As the Analytic of Formulae may be compared to Geometry, so Method may with equal propriety be compared to

Arithmetic, Algebra, and the Calculus in pure Mathematics-the former treats of Form in Space, considered simply as continuous quantity; the latter of methods of finding results in discrete quantity. Every mathematician knows that the truth of the result depends upon two conditions, 1. I have also provided in the Appendix a liberal supply of examples for Praxis. Our limits will not allow of the insertion of examples illustrative of some of the principles of Method which we have described. Nor can they be represented in any brief or abstract, in such a way as to test the principle or be of use in criticising the examples themselves. I have also divided these examples into classes, so that, if thought best, they may be used as the student progresses in the Analysis of Formulhe-the first four sections being arranged with a view to corresponding divisions of Part I. Among the many analogies between Logic and Grammar, no one is more important and striking than that property in common from which it results; that as in the one case, so in the other, there is scarcely the possibility of getting a thorough knowledge of principles and formula without much experience in what in Grammar we call parsing. This practice in Logic has come to be called Praxis. But the very process by which we thus perfect our knowledge of the Principles and Formulae into familiarity with their use, is precisely that which we are obliged to practise in all cases where we apply our Logic at all in the purposes and uses of life. Praxis only makes perfect in the art of using our faculties and our knowledge in the wider and more important spheres for which our studies are designed to fit us. It is, I believe, owing to the neglect of Praxis, together with the practical difficulty which nothing but much practice can remove of putting propositions into a Formal shape, that the impression that a large part of the arguments in every book to which the mind assents, cannot, nevertheless, be put into any one of the known and recognized Formulae, has become so general. Rules of rhetoric and taste would forbid such prolixity, even if it were possible. But Logic supposes nothing. It demands that all that is in the thought should be fully and explicitly stated. And one who has given a thorough logical analysis to any production, must of necessity understand it as well as he who wrote it, and probably, in nine cases out of ten at least, he would really understand it much better. He must understand it thoroughly, which is certainly more than can in all cases with propriety be said of the author himself. How many Enthymemes are uttered, the suppressed premises of which are wholly unknown and unsuspected to him who expresses the Enthymeme? How many conditionals, the sequences of which are unknown to the writer or speaker himself? But all the latent elements of these imperfect arguments must have been brought out, stated, and examined by him who has gone through with a thorough logical criticism of the production. The student and the teacher likewise will probably find the ehapter on Methods of instruction the least full and satisfactory of any. The reason for this is assigned in the chapter itself. And, after much deliberation, I have decided to send it out as it is, regarding it as the best that I can make of the matter now and under the present circumstances. Such as it is, however, I trust that it will not be found unworthy of attention and diligent study. It is to all the speculative sciences, every branch of knowledge except mathematics, what arithmetic and algebra are to the Mathematics themselves-as an instrument in constructing those sciences-and it is as necessary as grammar itself to rhetoric, and all the departments of literary criticism, dialectics, and oratory. In speaking thus of the importance of the science, and of a thorough education in it, I am not of course advocating the introduction of its technicalities and Formulhe into public speaking and writing; the analogy of grammar and rhetoric holds here also. No one, in speaking or writing, stops to parse his words, or to name every figure of speech which he uses, or every rule of rhetoric which he may have had in mind when he wrote or spoke. No more is it expected that the same thing should be done in regard to Logic. Here, as elsewhere, it may be said, the greatest art is to conceal art-to write with a perfect knowledge of all the terms and principles of the -science of writing, and yet never thrust them forward in such a way as to be offensive to good taste, or vexatious to the reader. To reason logically is not the same as to reason formally. All good reasoning is of necessity logical, just as all good writing must fulfil the rules and requirements of grammar and rhetoric. But it is not expected that the arguments will always be stated in the precise forms that are given in this book; nor that all that is requisite to their completion shall be expressly given. It allows of no omissions-no ellipses. On the contrary, rhetoric, good taste, brevity," and more than all, the scantiness of thought in the mind of the speaker, make this necessary. And thus the reasoning fulfils the Formula-becomes formal-or, as it is commonly but very improperly called, logical. One might with as much propriety object to the study of the

Binomial Theorem, on the ground that in equations of the second degree, we seldom or never find the square of the Binomial complete. Without these Formulae and technicalities, what is written and said can never be comprehended or intelligibly discussed. But, after all, it must be distinctly considered that Logic, like the pure Mathematics, is only a means and not an end. The pursuit of the study may be valuable as a discipline. Its results will be of great service to any one who has thoroughly comprehended them. But if one looks to its Formulae as a substitute for common sense in the common affairs of life, or of investigation in the higher pursuits of literature and science, or of patient and laborious thought anywhere, he will be sadly disappointed. Of the Order in Criticising Arguments, Examples in Hypothetical Syllogisms, Examples Involving Questions of Method, THE word Logic has been used in many different senses, and most treatises on the subject have Logi, various. It sometimes denotes the science which explains the laws of thought merely. It is sometimes used to denote the art of convincing and persuading. It has been thought to imply the consideration of the means of discovering truth, and also the general principles of Method. Philosophy was in existence and cultivated some time before Logic appeared as a distinct Philosophy beScience or Art. The reason is obvious. The earliest schools of Greek Philosophy and of the Hindoo Philosophy we cannot now speak, for want of chronological data -the Ionian and the Pythagorean-argued and dogmatized without fear or expectation of contradiction; they were too sanguine and confident to feel the need of Logic. But as soon as the doctrines of these two schools came into conflict, some Canon, or test, of truth was founfd The origin of to be necessary. Not only terms in which Logic. No system of Logic, however, was formally deo veloped and digested until Aristotle. As soon, however, as Philosophy had sufficiently explored the field which it had to occupy, to form any definite idea of what is contained in it, we find Plato dividing it into three coordinate branches: Logic is derived from the Greek A67yo, and in Logic, how the sense used by Plato, it means whatever used by Plato. Logic was used to denote the whole of what, in modern times, has been called Intellectual Philosophy, or Metaphysics. But Intellectuai Philosophy or Metaphysics, in this broad extent of meaning, includes at least three distinct departments of science. The last element of this definition is what has usually been called METHOD; and latterly Methodnotinthere has been a tendency to regard it as a cluded latterly. Excluding Method, therefore, from our definition, Logic may be defined as the Science of Deductive Thinking. As there may be true and legitimate deductions as well as such as are false and delusive, Logic a Scithere must be a Science of deduction, by ee which the true may be distinguished from the false; and the laws and formulas of deduction itself so explained and developed, as to enable one to select and pursue those methods which lead to right conclusions, and avoid those that are fallacious. But it is necessary for the practical benefits of the science, to take some note of language, Its relationto or the words and signs by which thinking thetcrt orf Rhe is expressed; of the matter of which we toric. Logic, as an Art, is more properly called Dialectics or Rhetoric. Logic as a Science, that we have chiefly to do in this volume.

In history of logic: The 17th century is usually termed simply the Port-Royal Logic after the seat of the anticlerical Jansenist movement outside Paris. It was written by Antoine Arnauld and Pierre Nicole, possibly with others, and was published in French in with the title La Logique ou l'art de penser "Logic or the Art of.

But the evidence for the position of this dialogue is too tenuous to support such strong conclusions: Cicero seems to use this collection itself, or at least a secondary source relying on it, as his main historical source when he gives a short survey of the history of pre-Aristotelian rhetoric in his Brutus 46â€" Whereas most modern authors agree that at least the core of Rhet. III are not mentioned in the agenda of Rhet. The conceptual link between Rhet. III is not given until the very last sentence of the second book. It is quite understandable that the authenticity of this ad hoc composition has been questioned: Regardless of such doubts, the systematic idea that links the two heterogeneous parts of the Rhetoric does not at all seem to be unreasonable: The chronological fixing of the Rhetoric has turned out to be a delicate matter. At least the core of Rhet. Most striking are the affinities to the also early Topics; if, as it is widely agreed, the Topics represents a pre-syllogistic state of Aristotelian logic, the same is true of the Rhetoric: The Agenda of the Rhetoric The structure of Rhet. The first division consists in the distinction among the three means of persuasion: The second tripartite division concerns the three species of public speech. The speech that takes place in the assembly is defined as the deliberative species. In this rhetorical species, the speaker either advises the audience to do something or warns against doing something. Accordingly, the audience has to judge things that are going to happen in the future, and they have to decide whether these future events are good or bad for the polis, whether they will cause advantage or harm. The speech that takes place before a court is defined as the judicial species. The speaker either accuses somebody or defends herself or someone else. Naturally, this kind of speech treats things that happened in the past. The audience or rather jury has to judge whether a past event was just or unjust, i. While the deliberative and judicial species have their context in a controversial situation in which the listener has to decide in favor of one of two opposing parties, the third species does not aim at such a decision: The first book of the Rhetoric treats the three species in succession. These chapters are understood as contributing to the argumentative mode of persuasion orâ€"more preciselyâ€"to that part of argumentative persuasion that is specific to the respective species of persuasion. The second part of the argumentative persuasion that is common to all three species of rhetorical speech is treated in the chapters II. The second means of persuasion, which works by evoking the emotions of the audience, is described in the chapters II. Though the following chapters II. The underlying theory of this means of persuasion is elaborated in a few lines of chapter II. The aforementioned chapters II. Why the chapters on the argumentative means of persuasion are separated by the treatment of emotions and character in II. Rhetoric as a Counterpart to Dialectic Aristotle stresses that rhetoric is closely related to dialectic. He offers several formulas to describe this affinity between the two disciplines: This analogy between rhetoric and dialectic can be substantiated by several common features of both disciplines: Rhetoric and dialectic are concerned with things that do not belong to a definite genus or are not the object of a specific science. Rhetoric and dialectic rely on accepted sentences endoxa. Rhetoric and dialectic are not dependent on the principles of specific sciences. Rhetoric and dialectic are concerned with both sides of an opposition. Rhetoric and dialectic rely on the same theory of deduction and induction. Rhetoric and dialectic similarly apply the so-called topoi. The analogy to dialectic has important implications for the status of rhetoric. However, though dialectic has no definite subject, it is easy to see that it nevertheless rests on a method, because dialectic has to grasp the reason why some arguments are valid and others are not. Now, if rhetoric is nothing but the counterpart to dialectic in the domain of public speech, it must be grounded in an investigation of what is persuasive and what is not, and this, in turn, qualifies rhetoric as an art. Further, it is central to both disciplines that they deal with arguments from accepted premises. Hence the rhetorician who wants to persuade by arguments or rhetorical proofs can adapt most of the dialectical equipment. Nevertheless, persuasion that takes place before a public audience is not only a matter of arguments and proofs, but also of credibility and emotional attitudes. This is why there are

also remarkable differences between the two disciplines: Dialectic can be applied to every object whatsoever, rhetoric is useful especially in practical and public matters. Dialectic proceeds by questioning and answering, while rhetoric for the most part proceeds in continuous form. Dialectic is concerned with general questions, while rhetoric is concerned for the most part with particular topics i. Certain uses of dialectic apply qualified endoxa, i. Rhetoric must take into account that its target group has only restricted intellectual resources, whereas such concerns are totally absent from dialectic. While dialectic tries to test the consistency of a set of sentences, rhetoric tries to achieve the persuasion of a given audience. Non-argumentative methods are absent from dialectic, while rhetoric uses non-argumentative means of persuasion. Correspondingly, rhetoric is defined as the ability to see what is possibly persuasive in every given case Rhet. This is not to say that the rhetorician will be able to convince under all circumstances. Rather he is in a situation similar to that of the physician: Similarly, the rhetorician has a complete grasp of his method, if he discovers the available means of persuasion, though he is not able to convince everybody. This capacity can be used for good or bad purposes; it can cause great benefits as well as great harms. There is no doubt that Aristotle himself regards his system of rhetoric as something useful, but the good purposes for which rhetoric is useful do not define the rhetorical capacity as such. Thus, Aristotle does not hesitate to concede on the one hand that his art of rhetoric can be misused. But on the other hand he tones down the risk of misuse by stressing several factors: Generally, it is true of all goods, except virtue, that they can be misused. Secondly, using rhetoric of the Aristotelian style, it is easier to convince of the just and good than of their opposites. Finally, the risk of misuse is compensated by the benefits that can be accomplished by rhetoric of the Aristotelian style. Even those who just try to establish what is just and true need the help of rhetoric when they are faced with a public audience. Aristotle tells us that it is impossible to teach such an audience, even if the speaker had the most exact knowledge of the subject. Obviously he thinks that the audience of a public speech consists of ordinary people who are not able to follow an exact proof based on the principles of a science. Further, such an audience can easily be distracted by factors that do not pertain to the subject at all; sometimes they are receptive to flattery or just try to increase their own advantage. And this situation becomes even worse if the constitution, the laws, and the rhetorical habits in a city are bad. Finally, most of the topics that are usually discussed in public speeches do not allow of exact knowledge, but leave room for doubt; especially in such cases it is important that the speaker seems to be a credible person and that the audience is in a sympathetic mood. For all those reasons, affecting the decisions of juries and assemblies is a matter of persuasiveness, not of knowledge. It is true that some people manage to be persuasive either at random or by habit, but it is rhetoric that gives us a method to discover all means of persuasion on any topic whatsoever. But how does he manage to distinguish his own project from the criticized manuals? The general idea seems to be this: Previous theorists of rhetoric gave most of their attention to methods outside the subject; they taught how to slander, how to arouse emotions in the audience, or how to distract the attention of the hearers from the subject. This style of rhetoric promotes a situation in which juries and assemblies no longer form rational judgments about the given issues, but surrender to the litigants. Aristotelian rhetoric is different in this respect: Since people are most strongly convinced when they suppose that something has been proven Rhet. Since people have a natural disposition for the true Rhet. It is understandable that several interpreters found an insoluble tension between the argumentative means of pertinent rhetoric and non-argumentative tools that aim at what is outside the subject. It does not seem, however, that Aristotle himself saw a major conflict between these diverse tools of persuasion—presumably for the following reasons: Thus, it is not surprising that there are even passages that regard the non-argumentative tools as a sort of accidental contribution to the process of persuasion, which essentially proceeds in the manner of dialectic cp. His point seems to be that the argumentative method becomes less effective, the worse the condition of the audience is. This again is to say that it is due to the badness of the audience when his rhetoric includes aspects that are not in line with the idea of argumentative and pertinent rhetoric. The prologue of a speech, for example, was traditionally used for appeals to the listener, but it can also be used to set out the issue of the speech, thus contributing to its clearness. Similarly, the epilogue has traditionally been used to arouse emotions like pity or anger; but as soon as the epilogue recalls the conclusions reached, it will make the speech more understandable. Further, methodical persuasion must rest

on a complete analysis of what it means to be persuasive. A speech consists of three things: It seems that this is why only three technical means of persuasion are possible: Technical means of persuasion are either a in the character of the speaker, or b in the emotional state of the hearer, or c in the argument logos itself. If the speaker appears to be credible, the audience will form the second-order judgment that propositions put forward by the credible speaker are true or acceptable. This is especially important in cases where there is no exact knowledge but room for doubt. But how does the speaker manage to appear a credible person? Again, if he displayed i without ii and iii , the audience could doubt whether the aims of the speaker are good. Finally, if he displayed i and ii without iii , the audience could still doubt whether the speaker gives the best suggestion, though he knows what it is. But if he displays all of them, Aristotle concludes, it cannot rationally be doubted that his suggestions are credible. It must be stressed that the speaker must accomplish these effects by what he says; it is not necessary that he is actually virtuous: Thus, the orator has to arouse emotions exactly because emotions have the power to modify our judgments: Thesis i is false for the simple reason that the aim of rhetorical persuasion is a certain judgment krisis , not an action or practical decision prohairesis.

8: Rhetoric - Wikipedia

Overview. This volume contains Israel Efros' English translation of Maimonides' Treatise on Logic, as well as the original Arabic text, the Tibbon version, the Ahitub version, and the Vivas version, with Efros' textual comments.

A supplementary file to accompany my entry "Insolubles" in the Stanford Encyclopedia of Philosophy. Professor Stephen Read has kindly taken over editorship of that entry. I am preparing an updated and more "Web-friendly" version Version 3. It will be posted here in Adobe PDF format when it is ready. It is long way from being ready! This files requires the PDF reader version 4. This is the document popularly and unofficially known as "The Course in the Box," for reasons explained in the document itself. It is a set of lecture notes, handouts and other materials I have used over the years in teaching survey courses in mediaeval philosophy at various levels. The package has circulated freely in printed form since , and previous versions since before that. For reasons of time and technicalities, I never got around to converting the files to a more up-to-date format. He converted my old FancyFont files to WordPerfect 5. The several translatations the files have been through virtually guarantee that there are problems of detail. And there are other things that were lost in the translation as well. But never mind; his files were still tremendously useful to me, and I owe Parsons an enormous debt of gratitude. I made all these files available here for downloading, although they could not be viewed on screen. Well, that system gradually fell apart. First the Mac files somehow got corrupted. Then people started reporting mysterious "server errors" when trying to download the ZIP files for PC. So that is what I have done. You can download it for free as described above. If you missed the link then, here it is again: I want to emphasize that the PDF file available here is merely an interim version of the familiar Version 2. You use this material at your own risk. In particular, some of what I say about Avicenna on the human soul is just plain false. Also the material on Scotus is very sloppy. And the chapter on Nicholas of Cusa at the end can only be described as, well, perfunctory. You may well find other gross failings as well. I have, but I leave it as homework for you to find where they are. All the materials in the Survey are copyrighted by me. But if you do so, please include the copyright notice at the beginning. Here is a complete PDF scan of the original Version 2. No codes, no mysterious markup, just a scan of the original. Some of the pages are a little blurry, because the paper copy was a little blurry to begin with. This file requires the PDF reader version 9. How to get the " supposition dragon " that graces the Home Page.

9: An elementary treatise of logic;

See also: Chapter 4 of Joel L. Kraemer, Maimonides. The Life and World of One of Civilization's Greatest Minds, Doubleday, Kraemer paraphrases: The most important chapter of the logic treatise for our present and future purposes is chapter 8, in which Maimonides discussed four kinds of propositions that do not require proof and five types of syllogisms.

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