

Aristotle's Rhetoric

A Guide

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Rhetoric (Aristotle)

Aristotle's **Rhetoric** (Greek: Ρητορική; Latin: *Rhetorica*) is an ancient Greek treatise on the art of persuasion, dating from the 4th century BC. The English title varies: typically it is titled *Rhetoric*, the *Art of Rhetoric*, or a *Treatise on Rhetoric*.

Background

Aristotle is generally credited with developing the basics of the system of rhetoric that "thereafter served as its touchstone",^[1] 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."^[2] Gross & Walzer concur, indicating that, just as Alfred North Whitehead considered all Western philosophy a footnote to Plato, "all subsequent rhetorical theory is but a series of responses to issues raised" by Aristotle's *Rhetoric*.^[3] This is largely a reflection of disciplinary divisions, dating back to Peter Ramus' attacks on Aristotelian rhetoric in the late 16th century^[4] and continuing to the present.^[5]

Like the other works of Aristotle that have survived from antiquity, the *Rhetoric* seems not to have been intended for publication, being instead a collection of his students' notes in response to his lectures. The treatise shows the development of Aristotle's thought through two different periods while he was in Athens, and illustrates Aristotle's expansion of the study of rhetoric beyond Plato's early criticism of it in the *Gorgias* (ca. 386 BC) as immoral, dangerous, and unworthy of serious study.^{[6][7]} Plato's final dialogue on rhetoric, the *Phaedrus* (ca. 370 BC), offered a more moderate view of rhetoric, acknowledging its value in the hands of a true philosopher (the "midwife of the soul") for "winning the soul through discourse." This dialogue offered Aristotle, first a student and then a teacher at Plato's Academy, a more positive starting point for the development of rhetoric as an art worthy of systematic, scientific study.

The *Rhetoric* was developed by Aristotle during two periods when he was in Athens, the first, from 367 to 347 BC (when he was seconded to Plato in the Academy), and the second, from 335 to 322 BC (when he was running his own school, the Lyceum)

The study of rhetoric was contested in classical Greece: on the one side were the Sophists, and on the other side were Socrates, Plato, and Aristotle. The trio saw rhetoric and poetry as tools that were too often used to manipulate others by manipulating 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. One of the most important contributions of Aristotle's approach was that he identified rhetoric as one of the three key elements--along with logic and dialectic--of philosophy. Indeed, the first line of the *Rhetoric* is "Rhetoric is a counterpart (*antistrophe*) of dialectic."^[8] According to Aristotle, logic is concerned with reasoning to reach scientific certainty while dialectic and rhetoric are concerned with probability and, thus, are the branches of philosophy that are best suited to human affairs. 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

Most English readers in the 20th century relied on four translations of the *Rhetoric*. The first, by Richard C. Jebb, was published in 1909.^[9] The next two translations were published in 1924. John H. Freese's translation was published as a part of the Loeb Classical Library^[10] while W. Rhys Roberts' was published as a part of the Oxford University series of works in the Classics. Roberts' translation was edited and republished in 1954.^[11] The 1954 edition is widely considered the most readable of these translations and is widely available online. The fourth standard translation, by Lane Cooper, came out in 1932.^[12]

Not until the 1990s did another major translation of the *Rhetoric* appear. Published in 1991 and translated by George A. Kennedy, a leading classicist and rhetorician,^[13] 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*.^[14]

Neo-Aristotelian Theory

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 summed up most clearly in 1925 by Herbert Wichelns.^[15] The dominance of neo-Aristotelian criticism was "virtually unchallenged until the 1960s" and even now is considered not only as one of many approaches to criticism, but as fundamental for understanding other theoretical and critical approaches as they "developed largely in response to [its] strengths and weaknesses."^[16]

Overview Of Book I

The *Rhetoric* consists of three books. 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: those grounded in credibility (*ethos*), in the emotions and psychology of the audience (*pathos*), and in patterns of reasoning (*logos*). 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.^[17]

Chapter One

Aristotle first defines rhetoric as the counterpart (*antistrophos*) of dialectic (Bk. 1:1:1-2). He explains the similarities between the two but fails to comment on the differences. Here he introduces the term enthymeme (Bk. 1:1:3). This chapter is inconsistent with what follows in the others however.

Chapter Two

Aristotle's famous definition of rhetoric is viewed as the ability in any particular case to see the available means of persuasion. He defines *pisteis* as atechnic (inartistic) and entechnic (artistic). Of the *pisteis* provided through speech there are three parts: ethos, pathos, and logos. He introduces paradigms and syllogisms as means of persuasion.

Chapter Three

Introduces the three genres of rhetoric: deliberative, forensic, epideictic. Here he also touches on the "ends" the orators of each of these genres hope to reach with their persuasions – which are discussed in further detail in later chapters (Bk. 1:3:5-7).

Chapter Four

Aristotle discusses the types of political topics of deliberative rhetoric. 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 (Bk. 1:5:5-18).

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* (constitution) useful in deliberative rhetoric: democracy, oligarchy, aristocracy, and monarchy.

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

Discusses what syllogisms should be derived from *kategoria* (accusations) and *apologia* (defenses) for judicial rhetoric. 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.

Chapter Twelve

This chapter, also about judicial rhetoric, discusses people's dispositions of mind and whom people wrong from the *hedone* discussed in the previous chapter. 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 is summarizing 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.

Overview of Book II

Book II of Aristotle's *Rhetoric* generally concentrates on ethos and pathos, and as noted by Aristotle, both affect judgment. 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: Introduction In Chapter 1, Aristotle notes that emotions cause men to change their opinion in regard to their judgments. As such, emotions have specific causes and effects (Book 2.1.2-3). Thus, a speaker can employ his understanding as a stimulus for the sought emotion from an audience. However, Aristotle states that along with pathos, the speaker must also exhibit ethos, which for Aristotle encompasses wisdom (phronesis), virtue (arete), and good will (eunoia) (Book 2.1.5-9).

Chapters 2-11: Efficacious Emotions for Speakers in All Genres of Rhetoric Chapters 2-11 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 2.2.27). Aristotle arranges the discussion of the emotions in opposing pairs, such as anger and calmness or friendliness and enmity. For each emotion, Aristotle discusses the person's state of mind, against whom one directs the emotion, and for what reasons (Book 2.1.9). 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 2.2.3-4). Those who become angry are in a state of distress due to a foiling of their desires (Book 2.2.9). 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 2.2.12-27). 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. The significance of Aristotle's analysis stems from his idea that emotions have logical grounding and material sources.

Chapters 12-17: Ethos: Adapting the Character of the Speech to the Character of the Audience 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 148, Kennedy reveals the purpose of chapters 12-17 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."^[18] As seen in the chapters explaining the various emotions, in chapters 12-17 Aristotle focuses on the necessary means of successfully persuading an audience. 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 2.12.1-15). According to Aristotle, the old are distrustful, cynical, and small-minded for unlike the young their past is long and their future short (Book 2.13.1-5). The old do not act on a basis of desire but rather act for profit (Book 2.13.13-14). Those in the prime of life represent the mean to Aristotle, possessing the advantages of both old and young without excess or deficiency (Book 2.14.1). One of good birth, wealth, or power has the character of a lucky fool, a character in which insolence and arrogance breed if these good fortunes are not used to one's advantage (Book 2.15-17).

Chapters 18-26: Dialectical Features of Rhetoric Common to All Three Genres 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: comparisons, referencing that which has happened before, and fables, inventing an illustration (Book 2.20.2-3). Maxims, or succinct, clever statements about actions, serve as the conclusion of enthymemes (Book 2.1-2). In choosing a maxim, one should assess the audience views and employ a fitting maxim (Book 2.21.15-16). Amplification and depreciation, although not elements of an enthymeme, can contribute to refuting an opponent's enthymeme or revealing a falsehood by exposing it as just or unjust, good or evil, etc. Aristotle also mentions the koina, fallacious enthymemes, and lysis (the refutation of an opponent's enthymeme). In all of these techniques, Aristotle considers popular wisdom and audiences as a central guide. Thus, the speaker's effect on the audience serves as a key theme throughout Book II.

Book II ends with a transition to Book III. The transition concludes the discussion of pathos, ethos, paradigms, enthymemes, and maxims so that Book III may focus on delivery, style, and arrangement.

Overview of Book III

Book III of Aristotle's *Rhetoric* is often overshadowed by the first two books. While Books I and II are more systematic and address ethos, logos, and pathos, Book III is often considered a conglomeration of Greek stylistic devices on rhetoric. However, Book III contains informative material on lexis (style) which refers to the "way of saying" (in Chapters 1-12) and taxis, which refers to the arrangement of words (in Chapters 13-19).

Chapters 1-12: Style (lexis)

Chapter 1

Summarizes Aristotle's Book I and Book II and introduces the term hypokrisis (pronuntiatio). Aristotle argues that voice should be used to most accurately represent the given situation as exemplified by poets (Bk. 3 1:3-4).

Chapter 2

Highlights arête, which is defined as virtue or excellence. When applied to rhetoric, arête means natural rather than forced or artificial (Bk. 3 2:1-4). Metaphors are also addressed as a skill that cannot be taught and should bestow "verbal beauty" (Bk. 3 2:6-13).

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. 3 3:1-4).

Chapter 4

Discusses another figurative part of speech, the simile (also known as an eikon). Similes are only occasionally useful in speech since they are poetic and how similar they actually are to a 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. 3 5:1-6).

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.3 5:1-3).

Chapter 7

Aristotle expands on the use of appropriate style in addressing the subject. "Lexis will be appropriate if it expresses emotion and character and is proportional to the subject matter". Aristotle stresses emotion, credibility, genus (like age), and moral state as important considerations (Bk. 3 7:1-6).

Chapter 8

Rhythm should be incorporated into prose to make it well "rhythmed" but not to the extent of a poem (Bk.3 8:3-7).

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.3 9:3-4).

Chapter 10

Aristotle further highlights the metaphor and addresses how it brings about learning and enables visualization (Bk. 3 10:1-6).

Chapter 11

Explains why devices of style can defamiliarize language. Aristotle warns that it is inappropriate to speak in hyperbole (Bk. 3 11:15).

Chapter 12

The three genres of oral and written language are deliberative, judicial, and epideictic, all of which are written by logographoi (speech writers) who are each skilled at different types of speeches. This transitions into the next section of chapters on *taxis*.

Chapters 13-19: Taxis

Chapter 13

Covers the necessary parts of a speech which include the *prosthesis* (which is the statement of the proposition) and then the *pistis* (which is the proof of the statement), along with the *prooemium* (introduction) and *epilogue* (Bk.3 13:1-4).

Chapter 14

Discusses the *prooemium* (introduction), which demonstrates how the introduction should be used in both epideictic and judicial speeches. Both have the main goal of signaling the end of the speech (Bk. 3 14:1-11).

Chapter 15

Handles prejudicial attacks according to Aristotle which later on became part of *Stasis* (argumentation theory) which is "determining the question at issue in a trial".

Chapter 16

Diēgēsis or narration is discussed and demonstrates how one must work through an argument by using *logos*. Narration differs in epideictic, judicial, and deliberative narratives.

Chapter 17

Looks at the *pistis* or the proof in an oration, and how it varies in each type of speech.

Chapter 18

Erotēsis, also known as interrogation referred to asking and demanding responses in trials during Aristotle's time. It is seen as, "most opportune when an opponent has said one thing and when if the right question is asked, an absurdity results" (Bk. 3 19:1).

Chapter 19

Aristotle's final chapter in Book III discusses *epilogues*, which are the conclusion of speeches and must include four things: "disposing the hearer favorably toward the speaker and unfavorably to the opponent, amplifying and minimizing, moving the hearer into emotional reactions, and giving reminder of the speech's main points" (Bk. 3 19:1-4).

Scholars are turning to Book III once again to develop theories about Greek style and its contemporary relevance.^[19]

Notes

- [1] Bizzell, P. & Bruce Herzberg. (2000). *The Rhetorical Tradition: Readings from Classical Times to the Present*. NY: Bedford/St. Martin's. p.3.
- [2] Golden, James L., Goodwin F. Berquist, William E. Coleman, Ruth Golden, & J.Michael Sproule (eds.). (2007). *The rhetoric of Western thought: From the Mediterranean world to the global setting*, 9th ed. Dubuque, IA (USA): p.67.
- [3] Gross, Alan G. & Arthur E. Walzer. (2000). *Rereading Aristotle's Rhetoric*. Carbondale, IL (USA): Southern Illinois University Press: p.ix.
Gross & Walzer further say that "There is no comparable situation in any other discipline: No other discipline would claim that a single ancient text so usefully informs current deliberations on practice and theory."(p.x).
- [4] Murphy, John J. (1983). "Introduction, " Peter Ramus, *Arguments in Rhetoric against Quintilian*. C.Newlands (trans.), J.J.Murphy (ed.). DeKalb IL (USA): Univ. of Illinois Press.
- [5] Gross & Walzer, 2000, p.ix.
- [6] Griswold, Charles. "Plato on Rhetoric and Poetry" (<http://plato.stanford.edu/entries/plato-rhetoric/>), *Stanford Encyclopedia of Philosophy*, December 22, 2003.
- [7] *Gorgias*, 465a (<http://www.perseus.tufts.edu/cgi-bin/ptext?lookup=Plat.+Gorg.+465a>), Perseus Project.
- [8] Aristotle, *Retoric*, 1.1.1 (<http://www.perseus.tufts.edu/hopper/text?doc=Aristot.+Rh.+1.1.1>).
- [9] Jebb, Richard C. (trans.) (1909). *The Rhetoric of Aristotle*. Cambridge: University Press.
- [10] Freese, John H.(trans.) (1924). *Aristotle, The Art of Rhetoric*. With Greek text. Cambridge: Loeb Classical Library/Harvard University Press.
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- [12] Cooper, Lane (trans.). (1932/1960). *The Rhetoric of Aristotle*. New York: Appleton-Century-Crofts.
- [13] Kennedy, George A. (trans./ed.). 1991. *Aristotle 'On Rhetoric': A Theory of Civic Discourse*. New York/Oxford: Oxford University Press.
- [14] van Noorden, Sally. "A translation of Aristotle's Rhetoric," *The Classical Review*, 1993, 43.2, pp. 251-252.
- [15] WicheIns, H. (1925/1958). 'The Literary Criticism of Oratory' in D.C.Bryant (ed.) *The Rhetorical Idiom: Essays in Rhetoric, Oratory, Language, and Drama*. D.C.Bryant (ed.). Rpt. Ithaca NY (USA): Cornell University Press. p.5-42.
- [16] Foss, Sonja J. (1989). *Rhetorical criticism: Exploration and practice*. Prospect Heights IL (USA): Waveland Press. p.71 & 75.
- [17] Corbett, 1984, pp.v-xxvi.
- [18] Aristotle. On Rhetoric: A Theory of Civic Discourse. Trans. George A. Kennedy. 2nd ed. New York: Oxford University, 2007. Print.
- [19] Graff, Richard (2005). "Prose versus Poetry in Early Greek Theories of Style" (<http://www.jstor.org/stable/20135896>). *Rhetorica* (University of California Press) 23 (4): 303-335. .

Further reading

- Translation of Rhetoric by W. Rhys Roberts (<http://etext.library.adelaide.edu.au/a/a8rh/>)
- Perseus Project Rh.1.1.1 (<http://www.perseus.tufts.edu/hopper/text?doc=Aristot.+Rh.+1.1.1>)
- Aristotle's Rhetoric (<http://plato.stanford.edu/entries/aristotle-rhetoric>) entry by Christof Rapp in the *Stanford Encyclopedia of Philosophy*
- Allen, Danielle S. *Talking to Strangers: Anxieties of Citizenship since Brown v. Board of Education*. Chicago: University of Chicago Press, 2004.
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- Kennedy, George A. *Aristotle, on Rhetoric: A Theory of Civic Discourse*. NY/Oxford: Oxford University Press, 1991.
- Audiobook version of Aristotle's *Rhetoric* (http://www.archive.org/details/rhetoric_ge_librivox) (Public domain. Translated by Thomas Taylor)

Modes of persuasion

The **modes of persuasion** are devices in rhetoric that classify the speaker's appeal to the audience. They are: ethos, pathos, and logos.

Aristotle's *On Rhetoric*^[1] describes the modes of persuasion thus:

Persuasion is clearly a sort of demonstration, since we are most fully persuaded when we consider a thing to have been demonstrated.

Of the modes of persuasion furnished by the spoken word there are three kinds. [...] Persuasion is achieved by the speaker's personal character when the speech is so spoken as to make us think him credible. [...] Secondly, persuasion may come through the hearers, when the speech stirs their emotions. [...] Thirdly, persuasion is effected through the speech itself when we have proved a truth or an apparent truth by means of the persuasive arguments suitable to the case in question.

Ethos

Ethos (plural: *ethē*) is an appeal to the authority or honesty of the presenter. It is how well the presenter convinces the audience that he or she is qualified to present (speak) on the particular subject. It can be done in many ways:

- By being a notable figure in the field in question, such as a college professor or an executive of a company whose business is that of the subject.
- By having a vested interest in a matter, such as the person being related to the subject in question.
- By using impressive *logos* that shows to the audience that the speaker is knowledgeable on the topic.
- By appealing to a person's ethics or character.

Pathos

Pathos (plural: *patha* or *patheā*) is an appeal to the audience's emotions. It can be in the form of metaphor, simile, a passionate delivery, or even a simple claim that a matter is unjust. Pathos can be particularly powerful if used well, but most speeches do not solely rely on pathos. Pathos is most effective when the author or speaker demonstrates agreement with an underlying value of the reader or listener.

In addition, the speaker may use pathos to appeal to fear, in order to sway the audience. Pathos may also include appeals to audience imagination and hopes; done when the speaker paints a scenario of positive future results of following the course of action proposed.

Logos

Logos (plural: *logoi*) is logical appeal or the simulation of it, and the term *logic* is derived from it. It is normally used to describe facts and figures that support the speaker's topic. Having a *logos* appeal also enhances *ethos* (see above) because information makes the speaker look knowledgeable and prepared to his or her audience. However, the data can be confusing and thus confuse the audience. Logos can also be misleading or inaccurate.

External links

- Aristotle's Rhetoric^[2] (translated work)
 - Silva Rhetoricae: Forest of Rhetoric^[3] (general article)
 - European Rhetoric^[4] (general article)
 - Ethos, Logos and Pathos Examples^[5] (Examples of Ethos, Logos and Pathos)
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References

- [1] <http://classics.mit.edu/Aristotle/rhetoric.1.i.html>
- [2] <http://www.public.iastate.edu/~honeyl/Rhetoric/index.html>
- [3] <http://rhetoric.byu.edu/Persuasive%20Appeals/Persuasive%20Appeals.htm>
- [4] <http://www.european-rhetoric.com/rhetoric-101/modes-persuasion-aristotle/>
- [5] <http://pathosethoslogos.com/>

Ethos

Ethos (ἦθος /'i:θɒs/ or /'i:θoʊs/) is a Greek word meaning "character" that is used to describe the guiding beliefs or ideals that characterize a community, nation, or ideology. The Greeks also used this word to refer to the power of music to influence its hearer's emotions, behaviors, and even morals.^[1] Early Greek stories of Orpheus exhibit this idea in a compelling way. The word's use in rhetoric is closely based on the Greek terminology used by Aristotle in his concept of the three artistic proofs.

Etymology and origin

Ethos (ἦθος, ἔθος, plurals: *ethē* (ἦθη), *ethea* (ἔθεα)) is a Greek word originally meaning "accustomed place" (as in ἔθεα ὄπτων "the habitat of horses", Iliad 6.511), "custom, habit", equivalent to Latin *mores*.

Ethos forms the root of *ethikos* (ἠθικός), meaning "moral, showing moral character". Late Latin borrowed it as *ethicus*, the feminine of which (*ethica*, for ἠθική φιλοσοφία "moral philosophy") is the origin of the modern English word *ethics*.

Current usage

Ethos can simply mean the disposition, character, or fundamental values peculiar to a specific person, people, culture, or movement. The Ethos refers to the spirit which motivates the ideas and customs. As T.S. Eliot wrote, "The general ethos of the people they have to govern determines the behavior of politicians."^[2] One historian noted that in the 1920s, "The ethos of the Communist party dominated every aspect of public life in Soviet Russia."^[3]

Ethos may change in response to new ideas or forces. Ideas of economic modernization imported from the West in the 1930s brought about in Jewish settlements in Palestine "the abandonment of the agrarian ethos and the reception of...the ethos of rapid development".^[4]

Rhetoric

In rhetoric, ethos is one of the three artistic proofs (*pistis* (πίστις)) or modes of persuasion (other principles being *logos* and *pathos*) discussed by Aristotle in 'Rhetoric' as a component of argument. Speakers must establish ethos from the start. This can involve "moral competence" only; Aristotle however broadens the concept to include expertise and knowledge. Ethos is limited, in his view, by what the speaker says. Others however contend that a speaker's ethos extends to and is shaped by the overall moral character and history of the speaker—that is, what people think of his or her character before the speech is even begun (cf Isocrates).

According to Nedra Reynolds, Professor of Writing & Rhetoric, "ethos, like postmodern subjectivity, shifts and changes over time, across texts, and around competing spaces" (Reynolds 336). However, Reynolds additionally discusses how one might clarify the meaning of ethos within rhetoric as expressing inherently communal roots. This stands in direct opposition to what she describes as the claim "that ethos can be faked or 'manipulated'" because individuals would be formed by the values of their culture and not the other way around (Reynolds 336). While its meaning and application within literature might differ over time, this classical interpretation persists.

There are three categories of ethos.

- *phronesis* - practical skills & wisdom
- *arete* - virtue, goodness
- *eunoia* - goodwill towards the audience

In a sense, ethos does not belong to the speaker but to the audience. Thus, it is the audience that determines whether a speaker is a high- or a low-ethos speaker. Violations of ethos include:

- The speaker has a direct interest in the outcome of the debate (e.g. a person pleading innocence of a crime);
- The speaker has a vested interest or ulterior motive in the outcome of the debate;
- The speaker has no expertise (e.g. a lawyer giving a speech on space flight is less convincing than an astronaut giving the same speech).

Completely dismissing an argument based on any of the above violations of ethos is a formal fallacy, rendering the dismissal of the argument invalid.

The term "source credibility" has been used as the construct examined in the social sciences. Though recent work has found support for the existence of the three dimensions identified above, work from the 1950s through the 1980s consistently revealed two dimensions (competence and character) with other dimensions such as dynamism found only when broad approaches equating credibility with "person perception" were taken.

Character in Greek tragedy

The ways in which characters in Greek tragedies were constructed is important when considering ethos, or character, in Greek tragedy. Augustus Taber Murray explains that the depiction of a character was limited by the circumstances under which Greek tragedies were presented. These include the single unchanging scene, necessary use of the chorus, small number of characters limiting interaction, large outdoor theaters, and the use of masks, which all influenced characters to be more formal and simple.^[5] Murray also declares that the inherent characteristics of Greek tragedies are important in the makeup of the characters. One of these is the fact that tragedy characters were nearly always mythical characters. This limited the character, as well as the plot, to the already well-known myth from which the material of the play was taken. The other characteristic is the relatively short length of most Greek plays. This limited the scope of the play and characterization, so that the characters were defined by one overriding motivation toward a certain objective from the beginning of the play.^[6]

However, in regard to this trait, Murray clarifies that strict constancy is not always the rule in Greek tragedy characters. To support this, he points out the example of Antigone who, even though she strongly defies Creon in the beginning of the play, begins to doubt her cause and plead for mercy as she is led to her execution.^[7]

Several other aspects of the character element in ancient Greek tragedy are worth noting. One of these, which C. Garet discusses, is the fact that either because of contradictory action or incomplete description, the character cannot be viewed as an individual, or the reader is left confused about the character.^[8] One method of reconciling this would be to consider these characters to be flat, or type-caste, instead of round. This would mean that most of the information about the character centers around one main quality or viewpoint.^[9] Comparable to the flat character option, the reader could also view the character as a symbol. Examples of this might be the Eumenides as vengeance, or Clytemnestra as symbolizing ancestral curse.^[10] Yet another means of looking at character, according to Tycho von Wilamowitz and Howald, is the idea that characterization is not important. This idea is maintained by the theory that the play is meant to affect the viewer or reader scene by scene, with attention being only focused on the section at hand. This point of view also holds that the different figures in a play are only characterized by the situation surrounding them, and only enough so that their actions can be understood.^[11]

Garet makes three more observations about character in Greek tragedy. The first is an abundant variety of types of characters in Greek tragedy. His second observation is that the reader or viewer's need for characters to display a unified identity that is similar to human nature is usually fulfilled. Thirdly, characters in tragedies include

incongruities and idiosyncrasies.^[12]

Another aspect stated by Garet is that tragedy plays are composed of language, character, and action, and the interactions of these three components; these are fused together throughout the play. He explains that action normally determines the major means of characterization. Another principle he states is the importance of these three components' effect on each other; the important repercussion of this being character's impact on action.^[13]

Augustus Taber Murray also examines the importance and degree of interaction between plot and character. He does this by discussing Aristotle's statements about plot and character in his Poetics: that plot can exist without character, but character cannot exist without plot, and so character is secondary to plot. Murray maintains that Aristotle did not mean that complicated plot should hold the highest place in a tragedy play. This is because the plot was, more often than not, simple and therefore not a major point of tragic interest. Murray conjectures that people today do not accept Aristotle's statement about character and plot because to modern people, the most memorable things about tragedy plays are often the characters.^[14] Murray does, however, concede that Aristotle is correct in that "There can be no portrayal of character ... without at least a skeleton outline of plot."^[15]

Character, or ethos, in pictorial narrative

Ethos, or character, also appears in the visual art of famous or mythological ancient Greek events in murals, on pottery, and sculpture, referred to generally as pictorial narrative. Aristotle even praised the ancient Greek painter Polygnotos because his paintings included characterization. The way in which the subject and his actions are portrayed in visual art can convey the subject's ethical character and through this the work's overall theme, just as effectively as poetry or drama can.^[16] This characterization portrayed men as they ought to be, which is the same as Aristotle's idea of what ethos or character should be in tragedy. (Stansbury-O'Donnell, 178) Professor Mark D. Stansbury-O'Donnell states that pictorial narratives often had ethos as its focus, and was therefore concerned with showing the character's moral choices. (Stansbury-O'Donnell, 175) David Castriota, agreeing with Stansbury-O'Donnell's statement, says that the main way Aristotle considered poetry and visual arts to be on equal levels was in character representation and its effect on action.^[17] However, Castriota also maintains about Aristotle's opinion that "his interest has to do with the influence that such ethical representation may exert upon the public." Castriota also explains that according to Aristotle, "The activity of these artists is to be judged worthy and useful above all because exposure of their work is beneficial to the polis."^[17] Accordingly, this was the reason for the representation of character, or ethos, in public paintings and sculptures. In order to portray the character's choice, the pictorial narrative often shows an earlier scene than when the action was committed. Stansbury-O'Donnell gives an example of this in the form of a picture by the ancient Greek artist Exekia which shows the Greek hero Ajax planting his sword in the ground in preparation to commit suicide, instead of the actual suicide scene. (Stansbury-O'Donnell, 177.) Additionally, Castriota explains that ancient Greek art expresses the idea that character was the major factor influencing the outcome of the Greeks' conflicts against their enemies. Because of this, "ethos was the essential variable in the equation or analogy between myth and actuality."^[18]

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Pathos

Pathos (► /'peɪθəs/; plural: *patha* or *pathea*; Greek: πάθος, for "suffering" or "experience;" adjectival form: 'pathetic' from παθητικός) represents an appeal to the audience's emotions. Pathos is a communication technique used most often in rhetoric (where it is considered one of the three modes of persuasion, alongside ethos and logos), and in literature, film and other narrative art.

Emotional appeal can be accomplished in a multitude of ways:

- by a metaphor or story telling, common as a hook,
- by a general passion in the delivery and an overall emotion and sympathies of the speech or writing as determined by the audience. The pathos of a speech or writing is only ultimately determined by the hearers.

Sublime pathos

Pathos is a display of The Rhetorical Device

Logos

Logos (► /'loʊgɒs/, UK /'lɒgɒs/, or US /'loʊgəʊs/; Greek: λόγος, from λέγω *lego* "I say") is an important term in philosophy, psychology, rhetoric, and religion. Originally a word meaning "a ground", "a plea", "an opinion", "an expectation", "word," "speech," "account," "reason,"^{[1][2]} it became a technical term in philosophy, beginning with Heraclitus (ca. 535–475 BC), who used the term for a principle of order and knowledge.^[3]



Ancient philosophers used the term in different ways. The sophists used the term to mean discourse, and Aristotle applied the term to refer to "reasoned discourse"^[4] or "the argument" in the field of rhetoric.^[5] The Stoic philosophers identified the term with the divine animating principle pervading the Universe.

Under Hellenistic Judaism, Philo (ca. 20 BC–AD 50) adopted the term into Jewish philosophy.^[6] The Gospel of John identifies the Logos, through which all things are made, as divine (*theos*),^[7] and further identifies Jesus as the incarnate Logos.

Although the term "Logos" is widely used in this Christian sense, in academic circles it often refers to the various ancient Greek uses, or to post-Christian uses within contemporary philosophy, Sufism, and the analytical psychology of Carl Jung.

Etymology and linguistic issues

In ordinary, non-technical Greek, *logos* had a semantic field extending beyond "word" to notions such as, on the one hand, language, talk, statement, speech, conversation, tale, story, prose, proposition, and principle; and on the other hand, thought, reason, account, consideration, esteem, due relation, proportion, and analogy.^[1]

Despite the conventional translation as "word," it is not used for a word in the grammatical sense; instead, the term *lexis* (λέξις) was used.^[8] However, both *logos* and *lexis* derive from the same verb *legō* (λέγω), meaning "to count, tell, say, speak".^{[1][8][9]}

Philo distinguished between *logos prophorikos* (the uttered word) and the *logos endiathetos* (the word remaining within).^[10] The Stoics also spoke of the *logos spermatikos* (the generative principle of the Universe), which is not important in the Biblical tradition, but is relevant in Neoplatonism.^[11] Early translators from Greek, like Jerome in

the 4th century, were frustrated by the inadequacy of any single Latin word to convey the Logos expressed in the Gospel of John. The Vulgate Bible usage of *in principio erat verbum* was thus constrained to use the perhaps inadequate noun *verbum* for word, but later romance language translations had the advantage of nouns such as *le mot* in French. Reformation translators took another approach. Martin Luther rejected *Zeitwort* (verb) in favor of *Wort* (word), for instance, although later commentators repeatedly turned to a more dynamic use involving *the living word* as felt by Jerome and Augustine.^[12]

In English, *logos* is the root of the "-logy" suffix (e.g., geology).^[13]

Ancient Greek philosophy

Heraclitus

The writing of Heraclitus was the first place where the word *logos* was given special attention in ancient Greek philosophy,^[14] although Heraclitus seems to use the word with a meaning not significantly different from the way it was used in ordinary Greek of his time.^[15] For Heraclitus *logos* provided the link between rational discourse and the world's rational structure.^[16]

This LOGOS holds always but humans always prove unable to understand it, both before hearing it and when they have first heard it. For though all things come to be in accordance with this LOGOS, humans are like the inexperienced when they experience such words and deeds as I set out, distinguishing each in accordance with its nature and saying how it is. But other people fail to notice what they do when awake, just as they forget what they do while asleep.

—Diels-Kranz, 22B1

For this reason it is necessary to follow what is common. But although the LOGOS is common, most people live as if they had their own private understanding.

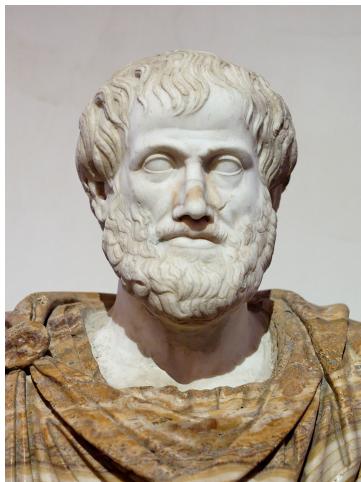
—Diels-Kranz, 22B2

Listening not to me but to the LOGOS it is wise to agree that all things are one.

—Diels-Kranz, 22B50^[17]

What logos means here is not certain: it may mean 'reason' or 'explanation' in the sense of an objective cosmic law; or it may signify nothing more than 'saying' or 'wisdom'.^[18] Yet, an independent existence of a universal *logos* was clearly suggested by Heraclitus.^[19]

Aristotle's rhetorical logos



Aristotle, 384–322 BC.

Following one of the other meanings of the word, Aristotle, in the *Ars Rhetorica*, gave *logos* a different technical definition as argument from reason, one of the three modes of persuasion (the other two modes are *pathos* (Greek: πάθος), persuasion by means of emotional appeal: "putting the hearer into a certain frame of mind",^[20] and *ethos* (ἦθος), persuasion through convincing listeners of one's "moral character.")^[20] According to Aristotle, *logos* relates to "the speech itself, in so far as it proves or seems to prove."^{[20][21]} In the words of Paul Rahe:

For Aristotle, *logos* is something more refined than the capacity to make private feelings public: it enables the human being to perform as no other animal can; it makes it possible for him to perceive and make clear to others through reasoned discourse the difference between what is advantageous and what is harmful, between what is just and what is unjust, and between what is good and what is evil.

—^[4]

Logos, *pathos*, and *ethos* can all be appropriate at different times.^[22] Arguments from reason (logical arguments) have some advantages, namely that data are (ostensibly) difficult to manipulate, so it is harder to argue against such an argument; and such arguments make the speaker look prepared and knowledgeable to the audience, enhancing *ethos*. On the other hand, trust in the speaker, built through *ethos*, enhances the appeal of arguments from reason.^[23]

Robert Wardy suggests that what Aristotle rejects in supporting the use of *logos* "is not emotional appeal per se, but rather emotional appeals that have no 'bearing on the issue,' in that the *pathē* they stimulate lack, or at any rate are not shown to possess, any intrinsic connection with the point at issue – as if an advocate were to try to whip an anti-Semitic audience into a fury because the accused is Jewish; or as if another in drumming up support for a politician were to exploit his listeners's reverential feelings for the politician's ancestors."^[24]

Stoics

In Stoic philosophy, which began with Zeno of Citium c. 300 BC, the *logos* was the active reason pervading and animating the universe. It was conceived of as material, and is usually identified with God or Nature. The Stoics also referred to the *seminal logos*, ("*logos spermatikos*") or the law of generation in the universe, which was the principle of the active reason working in inanimate matter. Humans, too, each possess a portion of the divine *logos*.^[25]

The Stoics took all activity to imply a Logos, or spiritual principle. As the operative principle of the world, to them, the Logos was *anima mundi*, a concept which later influenced Philo of Alexandria, although he derived the contents of the term from Plato.^[26]

Logos in Hellenistic Judaism

In the Septuagint the term *logos* is used for the word of God in the creation of heaven in Psalm 33:6, and in some related contexts.

Philo of Alexandria

Philo (20 BC – 50 AD), a Hellenized Jew, used the term Logos to mean an intermediary divine being, or demiurge.^[6] Philo followed the Platonic distinction between imperfect matter and perfect idea, and therefore intermediary beings were necessary to bridge the enormous gap between God and the material world.^[27] The Logos was the highest of these intermediary beings, and was called by Philo "the first-born of God."^[27] Philo also wrote

that "the Logos of the living God is the bond of everything, holding all things together and binding all the parts, and prevents them from being dissolved and separated."^[28]

The Platonic Ideas were located within the Logos, but the Logos also acted on behalf of God in the physical world.^[27] In particular, the Angel of the Lord in the Hebrew Bible (Old Testament) was identified with the Logos by Philo, who also said that the Logos was God's instrument in the creation of the universe.^[27]

Christianity

Christ the Logos

The Christian concept of the Logos is derived from the first chapter of the Gospel of John, where the Logos (often translated as "Word") is described in terms that resemble, but likely surpass, the ideas of Philo:^[29]

In the beginning was the Word, and the Word was with God, and the Word was God. He was with God in the beginning. Through him all things were made; without him nothing was made that has been made. In him was life, and that life was the light of men. The light shines in the darkness, but the darkness has not understood it.

—^[30]

John also explicitly identifies the Logos with Jesus:

The Word became flesh and made his dwelling among us. We have seen his glory, the glory of the One and Only,[a] who came from the Father, full of grace and truth. John testifies concerning him. He cries out, saying, "This was he of whom I said, 'He who comes after me has surpassed me because he was before me.'"

—^[31]

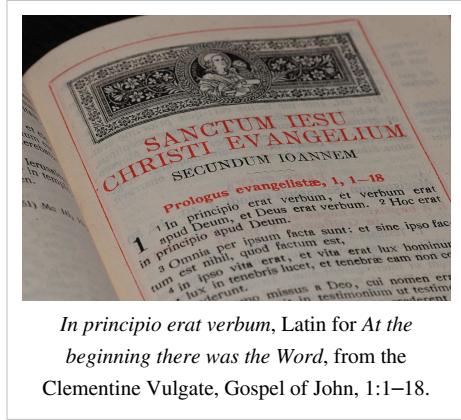
Christians who profess belief in the Trinity often consider John 1:1 to be a central text in their belief that Jesus is God, in connection with the idea that the Father, Jesus, and the Holy Spirit are equals. As theologian Frank Stagg writes:

As the Logos, Jesus Christ is God in self-revelation (Light) and redemption (Life). He is God to the extent that he can be present to man and knowable to man. The Logos is God,^[Jn 1:1] ... Yet the Logos is in some sense distinguishable from God, for "the Logos was with God."^[Jn 1:1] God and the Logos are not two beings, and yet they are also not simply identical. ... The Logos is God active in creation, revelation, and redemption.

—^[32]

"God" or "a god"

The last four words of John 1:1 (Greek: θεὸς ἦν ὁ λόγος, literally "God was the Logos," or "God was the Word") have been a particular topic of debate within Christianity. In this construct, the subject (the Logos) and the complement (God) both appear in the nominative case, and the complement is therefore usually distinguished by dropping any article, and moving it before the verb.^{[33][34]} Grammatically, the phrase could therefore read either "the Word was God" or "the Word was 'a' god."^[33] In Greek grammar the word 'a' is nonexistent and is generally understood as implied by the very nature of its absence. Different translators decide to add it or to not add it. However, according to a grammatical construction known as Colwell's Rule, the predicate of a predicate nominative should not be considered indefinite unless the context mandates it. Since "God" (Greek: θεὸς, *theos*) is the predicate in the predicate nominative construction, it is unlikely that the noun "God" is indefinite (requiring "a god" rather than



"God").^[35] Early New Testament manuscripts did not distinguish upper and lower case,^[33] although many scholars see the movement of "God" to the front of the clause as indicating an emphasis more consistent with "the Word was God."^{[36][37][38][39]} Some translations, such as An American Translation^[40] and Moffatt, New Translation,^[41] preserve a sense of ambiguity with "the Word was divine." Related translations have also been suggested, such as "what God was the Word also was."^[42]

While "the Word was God" is by far the most common English translation,^[43] non-Trinitarian groups such as the Jehovah's Witnesses (in the New World Translation^[44] and their edition of the Emphatic Diaglott^[45]) and Unitarians (in Thomas Belsham's modification^[46] of William Newcome's version) translate "the Word was a god."

Early Christian writers

Following John 1, the early Christian apologist Justin Martyr (c 150) identified Jesus as the Logos.^{[47][48]} Like Philo, Justin also identified the Logos with the Angel of the Lord, and used this as a way of arguing for Christianity to Jews:

I shall give you another testimony, my friends, from the Scriptures, that God begot before all creatures a Beginning, [who was] a certain rational power [proceeding] from Himself, who is called by the Holy Spirit, now the Glory of the Lord, now the Son, again Wisdom, again an Angel, then God, and then Lord and Logos;
—^[49]

In his *First Apology*, Justin used the Stoic concept of the Logos as a way of arguing for Christianity to non-Jews. Since a Greek audience would accept this concept, his argument could concentrate on identifying this Logos with Jesus.^[47] However, Justin does not go so far as to articulate a fully consistent doctrine of the Logos.^[47]

Rhema and logos

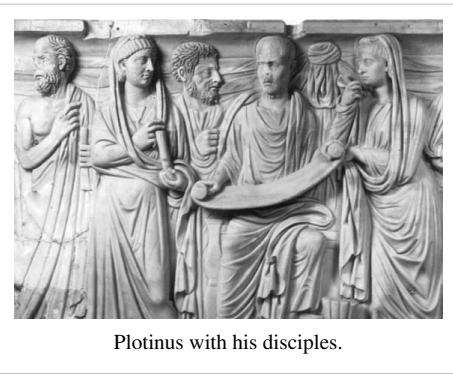
The word logos has been used in different senses along with Rhema. Both Plato and Aristotle used the term logos along with *rhema* to refer to sentences and propositions.^{[50][51]}

The Septuagint translation of the Hebrew Bible into Greek uses the terms Rhema and Logos as equivalents and uses both for the Hebrew word Dabar, as the Word of God.^{[52][53][54]}

Some modern usage in Christian Theology distinguishes Rhema from Logos (which here refers to the written scriptures) while Rhema refers to the revelation received by the reader from the Holy Spirit when the Word (Logos) is read,^{[55][56][57][58]} although this distinction has been criticized.^{[59][60]}

Neoplatonism

Neoplatonist philosophers such as Plotinus (204/5–270 AD) used the term "Logos" in ways that drew on Plato and the Stoics,^[61] but the term Logos was interpreted in different ways throughout Neoplatonism, and similarities to Philo's concept of Logos appear to be accidental.^[62] The Logos was a key element in the meditations of Plotinus^[63] regarded as the first Neoplatonist. Plotinus referred back to Heraclitus and as far back as Thales^[64] in interpreting Logos as the principle of meditation, existing as the interrelationship between the Hypostases^[65] (The 'One', 'Spirit' (nous) and 'Soul').



Plotinus with his disciples.

Plotinus used a trinity concept that consisted of "The One", the "Spirit" and "Soul". The comparison with the Christian Trinity is inescapable, but for Plotinus these were not equal and "The One" was at the highest level, with the "Soul" at the lowest.^[66] For Plotinus, the relationship between the three elements of his trinity is conducted by the outpouring of Logos from the higher principle, and *eros* (loving) upward

from the lower principle.^[67] Plotinus relied heavily on the concept of Logos, but no explicit references to Christian thought can be found in his works, although there are significant traces of them in his doctrine. Plotinus specifically avoided using the term Logos to refer to the second person of his trinity.^[68] However, Plotinus influenced Victorinus who then influenced Augustine of Hippo.^[69] Centuries later, Carl Jung acknowledged the influence of Plotinus in his writings.^[70]

Victorinus differentiated between the Logos interior to God and the Logos related to the world by creation and salvation.^[71]

Augustine of Hippo, often seen as the father of medieval philosophy, was also greatly influenced by Plato and is famous for his re-interpretation of Aristotle and Plato in the light of early Christian thought.^[72] A young Augustine experimented with, but failed to achieve ecstasy using the meditations of Plotinus.^[73] In his Confessions Augustine described Logos as the *Divine Eternal Word*,^[74] by which he, in part, was able to motivate the early Christian thought throughout the Greek-influenced world (of which the Latin speaking West was a part)^[75] Augustine's Logos had taken body in Christ, the man in whom the logos (i.e. veritas or sapientia) was present as in no other man.^[76]

Sufism



Ibn Arabi, 1165–1240.

The concept of Logos in Sufism is used to relate the "Uncreated" (God), to the "Created" (man). In Sufism, for the Deist, no contact between man and God can be possible without the Logos. The Logos is everywhere and always the same, but its personification is "unique" within each region. Jesus and Muhammad are seen as the personifications of the Logos, and this is what enables them to speak in such absolute terms.^{[77][78]}

One of the boldest and most radical attempts to reformulate the Neoplatonic concepts into Sufism arose with the philosopher Ibn Arabi, who traveled widely in Spain and North Africa. His concepts were expressed in two major works *The Ringstones of Wisdom* (*Fusus al-Hikam*) and *The Meccan Illuminations* (*Al-Futūḥāt al-Makkiyya*). To Ibn Arabi, every prophet corresponds to a reality which he called a Logos (Kalimah), as an aspect of the unique Divine Being. In his view the Divine

Being would have for ever remained hidden, had it not been for the prophets, with Logos providing the link between man and divinity.^[79]

Ibn Arabi seems to have adopted his version of the Logos concept from Neoplatonic and Christian sources,^[80] although (writing in Arabic rather than Greek) he used more than twenty different terms when discussing it.^[81] For Ibn Arabi, the Logos or "Universal Man" was a mediating link between individual human beings and the divine essence.^[82]

Other Sufi writers also show the influence of the Neoplatonic Logos.^[83] In the 15th century 'Abd al-Karim al-Jili introduced the *Doctrine of Logos and the Perfect Man*. For al-Jili the *perfect man* (associated with the Logos or the Holy Prophet) has the power to assume different forms at different times, and appear in different guises.^[84]

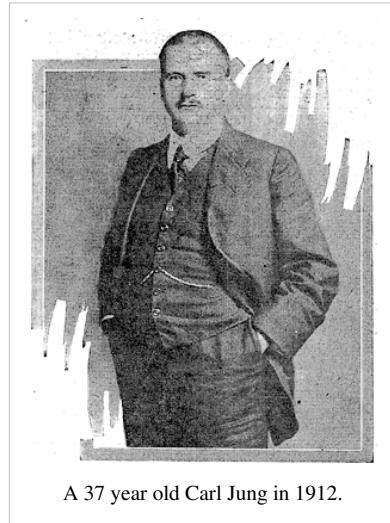
Jung's analytical psychology

Carl Jung contrasted the critical and rational faculties of logos with the emotional, non-reason oriented and mythical elements of *eros*.^[85] In Jung's approach, logos vs eros can be represented as "science vs mysticism", or "reason vs imagination" or "conscious activity vs the unconscious".^[86]

For Jung, logos represented the masculine principle of rationality, in contrast to its female counterpart, *eros*:

Woman's psychology is founded on the principle of *Eros*, the great binder and loosener, whereas from ancient times the ruling principle ascribed to man is *Logos*. The concept of *Eros* could be expressed in modern terms as psychic relatedness, and that of *Logos* as objective interest.

—^[87]



A 37 year old Carl Jung in 1912.

Jung attempted to equate logos and eros, his intuitive conceptions of masculine and feminine consciousness, with the alchemical Sol and Luna. Jung commented that in a man the lunar anima and in a woman the solar animus has the greatest influence on consciousness.^[88] Jung often proceeded to analyze situations in terms of "paired opposites", e.g. by using the analogy with the eastern yin and yang^[89] and was also influenced by the Neoplatonics.^[90]

In his book *Mysterium Coniunctionis* Jung made some important final remarks about anima and animus:

In so far as the spirit is also a kind of "window on eternity"... it conveys to the soul a certain influx divinus... and the knowledge of a higher system of the world, wherein consists precisely its supposed animation of the soul.

And in this book Jung again emphasized that the animus compensates eros, while the anima compensates logos.^[91]

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External links

- The Apologist's Bible Commentary (http://www.forananswer.org/John/Jn1_1.htm)

Enthymeme

An **enthymeme** (Greek: ἐνθύμημα, *enthumēma*), in its modern sense, is an informally stated syllogism (a three-part deductive argument) with an unstated assumption that must be true for the premises to lead to the conclusion. In an enthymeme, part of the argument is missing because it is assumed. In a broader usage, the term "enthymeme" is sometimes used to describe an incomplete argument of forms other than the syllogism,^[1] or a less-than-100% argument.^[2] For Aristotle, who defined it in his *Rhetoric*, an enthymeme was a "rhetorical syllogism" which was based on probable opinions, thus distinguishing it from a scientific syllogism. It is aimed at persuasion while scientific syllogism is aimed at demonstration.^[3] This definition of an enthymeme held fast until the 20th century, when Saul Kripke developed Modal logic. In the context of Modal logic, with Semantic tableaux as developed by Evert Willem Beth, the definition of an enthymeme alters: Rather than suppressing one of the major premises, minor premises, or the conclusion, any incorrect logical inference or proof that is persuasive, satisfies a concept of an enthymeme.

Formal requirements

While syllogisms lay out all of their premises and conclusion explicitly, enthymemes keep at least one of the premises or conclusion unsaid. The assertion left unsaid is intended to be so obvious as to not need stating.^[4]

Thus, enthymemes allow the speaker both to avoid alienating listeners with long chains of inferences and appeal to the audience's common sense without depleting the argument any of its logical force. For instance, a lawyer might say: "Only she had the means, the motive and the opportunity to kill him. She must be the killer." Logically, what's missing? A connection between the statements, which we tend to fill in automatically. Something like "The killer had the means, motive and opportunity to kill him." But a lawyer who spelled this detail out to the jury might be considered pedantic.

Though they require some filling in, enthymemes are intended to have the form of valid deductive syllogisms, so a complete enthymeme has the same premise-premise-conclusion structure as any syllogism, and is intended to guarantee the truth of its conclusion based on the truth of its premises.

Hence the argument...

P1: Only she had the means, the motive and the opportunity to kill him.

P2: The one with the means, motive and opportunity to kill him is the killer. (unstated)

C: She must be the killer.

...is clearly valid and deductive when the unstated premise is made explicit. But leaving the second premise to the imagination of the jurors is more appealing from a rhetorical standpoint.^[4]

Order

There are three conventional orders of enthymemes. A **first-order enthymeme** suppresses the major premise. A **second-order enthymeme** suppresses the minor premise. A **third-order enthymeme** suppresses the conclusion. Other orders of enthymemes, in which 2 elements of the syllogism are suppressed, could be postulated.

Examples

Informal syllogism

- "Socrates is mortal because he's human."

The complete syllogism would be the classic:

All humans are mortal. (major premise - assumed)

Socrates is human. (minor premise - stated)

Therefore, Socrates is mortal. (conclusion - stated)

Maxim, or a less-than-100% argument

- Klamer *et al.* argue in their 2007 paper that Aristotle addressed enthymemes as maxims:

"Aristotle noted that most arguments take the form of an 'enthymeme' ('EN-thu-miem'), an incomplete or not-quite-air-tight syllogism. '*Free trade is good*' or '*Taxes reduce output*' are enthymemes, not-syllogistic arguments. The average French economist may find such arguments 45 percent true, whereas the average American economist may find them 80 percent true. Arguing an enthymeme is successful when the economist defends the 45 or 80 percent true as 'true enough.' Economics, like other sciences, works in approximations."^[2]

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External links

- Extensive bibliography of enthymeme in scholarly literature (<http://rhetjournal.net/RhetJournal/Enthymemes.html>)
- The enthymeme in modern speech (<http://www.figarospeech.com/it-figures/2006/4/15/on-the-other-hand-you-can-blame-judas-ghost-writer.html>)
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Epideictic

The **Epideictic oratory**, also called **ceremonial oratory**, or praise-and-blame rhetoric, is one of the three branches, or "species" (*eidē*), of rhetoric as outlined in Aristotle's *Rhetoric*, to be used to praise or blame during ceremonies.

Origin, pronunciation

The term's root has to do with display or show (*deixis*). It is a literary or rhetorical term from the Greek (ἐπιδεικτικός). It is generally pronounced /ɛpɪ'deɪktɪk/ or /ɛpɪ'deɪktɪk/.^[1] Another English form, now less common, is *epidictic* /ɛpɪ'dɪktɪk/.

Characteristics

This is rhetoric of ceremony, commemoration, declamation, demonstration, on the one hand, and of play, entertainment, display, including self-display. It is also the rhetoric used at festivals, the Olympic games, state visits and other formal events like openings, closings, anniversaries as well as at births, deaths, or marriages. Its major subject is praise and blame, according to Aristotle in the limited space he provides for it in the *Art of Rhetoric* (Freese translation).

This rhetoric deals with goodness, excellence, nobility, shame, honor, dishonor, beauty, and matters of virtue and vice. The virtues or the "components" of virtue according to Aristotle, were "justice, courage, self-control, magnificence, magnanimity, liberality, gentleness, practical and speculative wisdom" or "reason". Vice was the "contrary" of virtue.

In his book *Rhetoric and Poetics in Antiquity*, Jeffrey Walker claims that epideictic rhetoric predates the rhetoric of courts and politics, the study of which began in the 5th or 4th century BC with the Sophists. The other two kinds of public speech were deliberative or political speech, and forensic, judicial, or legal speech. Epideictic rhetoric or style is according to Aristotle most appropriate for material that is written or read. In the *Art of Rhetoric*, Aristotle stated that "The epideictic style is especially suited to written compositions; for its function is reading" .(423)

Aristotle on epideixis

Aristotle instructs that in creating a speech of praise or blame, the author should consider the attitude of his audience: Will they be moved to see his object of praise (be it a person or a thing) in a new light, or will he be wasting everyone's time by "preaching to the choir"? What values and behavior does this particular audience find praiseworthy? Whether the audience is sympathetic, hostile, or indifferent to his object of praise or blame determines how difficult the task is that lies before him. As Aristotle reminds the reader, "[F]or as Socrates used to say, it is not difficult to praise Athenians in Athens" (*Rhetoric*,1367b).^[2]

According to Aristotle's conception of epideixis, "the present is the most important; for all speakers praise or blame in regard to existing qualities, but they often make use of other things, both reminding [the audience] of the past and projecting the course of the future" (*Rhet.* 1358b). Epideixis is Aristotle's least favored and clearly defined topic. Now considered to be the stuff of ceremonies with its exhortations, panegyrics, encomia, funeral orations and displays of oratorical prowess, epideictic rhetoric appears to most to be discourse less about depth and more attuned to style without substance. Still, the *Art of Rhetoric* is cited as an example of epideictic work (Lockwood, 1996).

Epideixis may not deserve the charge of lacking depth. The charge that this branch of rhetoric lacks depth can be countered by the recognition that it systematizes the successful attribution of value (to things, people, or concepts). Attributing value (whether in terms of "the good" and "the bad" or of "virtue" and "vice") to 1) perception, 2) emotions, 3) thought, 4) action, and 5) goals is the fundamental basis of relativistic conceptions of 1) aesthetics, 2) human character, 3) intelligence, 4) ethics, and 5) wisdom. For instance, applying epideixis to 'human perceptions'

yields aesthetics, and its application to 'human action' yields fundamental relativistic ethics. Nevertheless, epideixis can always be reduced to simply the study of how best to preach the positive or negative characteristics of creatures, contraptions, concepts (etc.) to an audience. Epideictic rhetoric appeals to - and serves to sway - personal and cultural values, whereas pure deliberative and judicial rhetoric appeal to reason alone.

And, Lockwood, also in *Reader's Figure*, describes how readers are figured by their readings, and how readers figure their readings, and that readers can accept the readers' account, and forget their own account of their present and past, and that the rhetor's account is produced by language.

Modern authors on epideixis

For centuries, epideictic oratory was a contested term, for it is clearly present in both forensic and deliberative forms, but it is difficult to clarify when it appears as a dominant discursive form. According to Chaim Perelmen and Lucy Olbrechts-Tyteca, "The speaker engaged in epidictic discourse is very close to being an educator. Since what he is going to say does not arouse controversy, since no immediate practical interest is ever involved, and there is no question of attacking or defending, but simply of promoting values that are shared in the community . . ." (52).^[3] Some of the defining terms for epideictic discourse include declamation, demonstration, praise or blame of the personal, and pleasing or inspiring to an audience.

Lawrence W. Rosenfield contends that epideictic practice surpasses mere praise and blame, and it is more than a showy display of rhetorical skill: "Epideictic's understanding calls upon us to join with our community in giving thought to what we witness, and such thoughtful beholding in commemoration constitutes memorializing" (133). Epideictic rhetoric also calls for witnessing events, acknowledging temporality and contingency (140). However, as Rosenfield suspects, it is an uncommon form of discourse because of the rarity of "its necessary constituents — openness of mind, felt reverence for reality, enthusiasm for life, the ability to congeal significant experiences in memorable language . . ." (150).

The philologist Ernst Curtius provides an account of its history, and many examples, in *European Literature and the Latin Middle Ages*. Praise and blame were "reduced" to praise by Aristotle, he wrote; and recently another author called it a "blameless genre". He and Lockwood seem to say that what was in the past called rhetoric was later called literature. Curtius believed that misinterpretations of medieval literature occur because so much of it is epideictic, and the epideictic is so alien to us today. During the Middle Ages it became a "school subject" as the sites for political activity diminished in the West, and as the centuries went on the word "praise" came to mean that which was written. During this period literature (more specifically histories, biographies, autobiographies, geographies) were called praise(s).

Ben Witherington III, writing from a biblical perspective on sacred exhortation, noted that "in general, epideictic rhetoric is highly emotional and meant to inspire the audience to appreciate something or someone, or at the other end of the spectrum, despise something or someone. Epideictic rhetoric seeks to charm or, to cast odium." - I & II Thessalonians: A Socio-Rhetorical Commentary^[4]

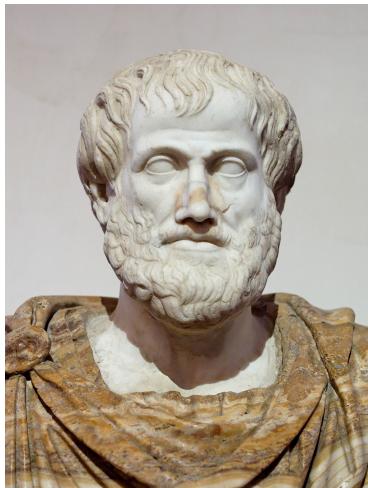
Epideictic writing in poetry is often associated with the *fu* rhapsody that developed in the early Han Dynasty. This highly ornamented style was used for almost any subject imaginable, and often incorporated obscure language with extensive cataloguing of rare items, all in verse of varying rhyme and line length.^[5]

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- [1] <http://www.wordreference.com/definition/epideictic>
- [2] Aristotle. *On Rhetoric* Trans. by George A. Kennedy. Oxford, UK: Oxford University Press, 1991.
- [3] Chaïm Perelman, Lucie Olbrechts-Tyteca, *The new rhetoric: a treatise on argumentation*, University of Notre Dame Press, 1969, p. 52
- [4] Ben Witherington III, I & II Thessalonians: A Socio-Rhetorical Commentary - More Quotes on Epideixis (http://libraryofrhetoric.org/lor/?page_id=90)
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Aristotle

Ἀριστοτέλης, *Aristotélēs*



Marble bust of Aristotle. Roman copy after a Greek bronze original by Lysippus c. 330 BC. The alabaster mantle is modern.

Born	384 BC Stageira, Chalcidice
Died	322 BC (aged 61 or 62) Euboea
Nationality	Greek
Era	Ancient philosophy
Region	Western philosophy
School	Peripatetic school Aristotelianism
Main interests	Physics, Metaphysics, Poetry, Theatre, Music, Rhetoric, Politics, Government, Ethics, Biology, Zoology
Notable ideas	Golden mean, Reason, Logic, Syllogism, Passion

Aristotle (Ancient Greek: Ἀριστοτέλης, *Aristotélēs*) (384 BC – 322 BC)^[1] was a Greek philosopher and polymath, a student of Plato and teacher of Alexander the Great. His writings cover many subjects, including physics, metaphysics, poetry, theater, music, logic, rhetoric, linguistics, politics, government, ethics, biology, and zoology. Together with Plato and Socrates (Plato's teacher), Aristotle is one of the most important founding figures in Western philosophy. Aristotle's writings were the first to create a comprehensive system of Western philosophy, encompassing morality, aesthetics, logic, science, politics, and metaphysics.

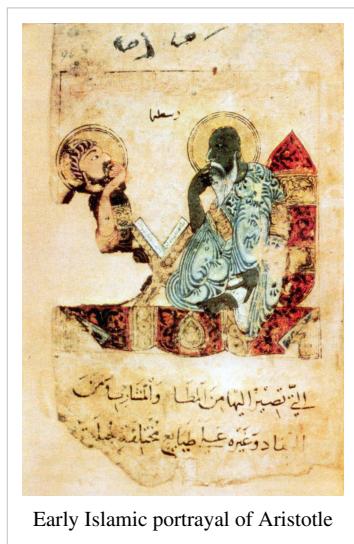
Aristotle's views on the physical sciences profoundly shaped medieval scholarship, and their influence extended well into the Renaissance, although they were ultimately replaced by Newtonian physics. In the zoological sciences, some of his observations were confirmed to be accurate only in the 19th century. His works contain the earliest known formal study of logic, which was incorporated in the late 19th century into modern formal logic. In metaphysics, Aristotelianism had a profound influence on philosophical and theological thinking in the Islamic and Jewish traditions in the Middle Ages, and it continues to influence Christian theology, especially the scholastic tradition of the Catholic Church. Aristotle was well known among medieval Muslim intellectuals and revered as "The

المعلم الأول - "The

First Teacher". His ethics, though always influential, gained renewed interest with the modern advent of virtue ethics. All aspects of Aristotle's philosophy continue to be the object of active academic study today. Though Aristotle wrote many elegant treatises and dialogues (Cicero described his literary style as "a river of gold"),^[2] it is thought that the majority of his writings are now lost and only about one-third of the original works have survived.^[3]

Life

Aristotle, whose name means "the best purpose,"^[4] was born in Stageira, Chalcidice, in 384 BC, about 55 km (34 mi) east of modern-day Thessaloniki.^[5] His father Nicomachus was the personal physician to King Amyntas of Macedon. Aristotle was trained and educated as a member of the aristocracy. At about the age of eighteen, he went to Athens to continue his education at Plato's Academy. Aristotle remained at the academy for nearly twenty years before quitting Athens in 348/47 BC. The traditional story about his departure reports that he was disappointed with the direction the academy took after control passed to Plato's nephew Speusippus upon his death, although it is possible that he feared anti-Macedonian sentiments and left before Plato had died.^[6] He then traveled with Xenocrates to the court of his friend Hermias of Atarneus in Asia Minor. While in Asia, Aristotle traveled with Theophrastus to the island of Lesbos, where together they researched the botany and zoology of the island. Aristotle married Hermias's adoptive daughter (or niece) Pythias. She bore him a daughter, whom they named Pythias. Soon after Hermias' death, Aristotle was invited by Philip II of Macedon to become the tutor to his son Alexander in 343 BC.^[7]



Early Islamic portrayal of Aristotle

Aristotle was appointed as the head of the royal academy of Macedon. During that time he gave lessons not only to Alexander, but also to two other future kings: Ptolemy and Cassander.^[8] Aristotle encouraged Alexander toward eastern conquest, and his attitude towards Persia was unabashedly ethnocentric. In one famous example, he counsels Alexander to be 'a leader to the Greeks and a despot to the barbarians, to look after the former as after friends and relatives, and to deal with the latter as with beasts or plants'.^[8]

By 335 BC he had returned to Athens, establishing his own school there known as the Lyceum. Aristotle conducted courses at the school for the next twelve years. While in Athens, his wife Pythias died and Aristotle became involved with Herpyllis of Stageira, who bore him a son whom he named after his father, Nicomachus. According to the Suda, he also had an eromenos, Palaephatus of Abydus.^[9]

It is during this period in Athens from 335 to 323 BC when Aristotle is believed to have composed many of his works.^[7] Aristotle wrote many dialogues, only fragments of which survived. The works that have survived are in treatise form and were not, for the most part, intended for widespread publication, as they are generally thought to be lecture aids for his students. His most important treatises include *Physics*, *Metaphysics*, *Nicomachean Ethics*, *Politics*, *De Anima (On the Soul)* and *Poetics*.

Aristotle not only studied almost every subject possible at the time, but made significant contributions to most of them. In physical science, Aristotle studied anatomy, astronomy, embryology, geography, geology, meteorology, physics and zoology. In philosophy, he wrote on aesthetics, ethics, government, metaphysics, politics, economics, psychology, rhetoric and theology. He also studied education, foreign customs, literature and poetry. His combined works constitute a virtual encyclopedia of Greek knowledge. It has been suggested that Aristotle was probably the last person to know everything there was to be known in his own time.^[10]

Near the end of Alexander's life, Alexander began to suspect plots against himself, and threatened Aristotle in letters. Aristotle had made no secret of his contempt for Alexander's pretense of divinity, and the king had executed Aristotle's grandnephew Callisthenes as a traitor. A widespread tradition in antiquity suspected Aristotle of playing a

role in Alexander's death, but there is little evidence for this.^[11]

Upon Alexander's death, anti-Macedonian sentiment in Athens once again flared. Eurymedon the hierophant denounced Aristotle for not holding the gods in honor. Aristotle fled the city to his mother's family estate in Chalcis, explaining, "I will not allow the Athenians to sin twice against philosophy,"^{[12][13]} a reference to Athens's prior trial and execution of Socrates. He died in Euboea of natural causes within the year (in 322 BC). Aristotle named chief executor his student Antipater and left a will in which he asked to be buried next to his wife.^[14]

Thought

Logic

With the *Prior Analytics*, Aristotle is credited with the earliest study of formal logic, and his conception of it was the dominant form of Western logic until 19th century advances in mathematical logic. Kant stated in the *Critique of Pure Reason* that Aristotle's theory of logic completely accounted for the core of deductive inference.

History

Aristotle "says that 'on the subject of reasoning' he 'had nothing else on an earlier date to speak of'.^[15] However, Plato reports that syntax was devised before him, by Prodicus of Ceos, who was concerned by the correct use of words. Logic seems to have emerged from dialectics; the earlier philosophers made frequent use of concepts like *reductio ad absurdum* in their discussions, but never truly understood the logical implications. Even Plato had difficulties with logic; although he had a reasonable conception of a deductive system, he could never actually construct one and relied instead on his dialectic.^[16] Plato believed that deduction would simply follow from premises, hence he focused on maintaining solid premises so that the conclusion would logically follow. Consequently, Plato realized that a method for obtaining conclusions would be most beneficial. He never succeeded in devising such a method, but his best attempt was published in his book *Sophist*, where he introduced his division method.^[17]



Aristotle portrayed in the 1493
Nuremberg Chronicle as a
15th-century-A.D. scholar

Analytics and the *Organon*

What we today call *Aristotelian logic*, Aristotle himself would have labeled "analytics". The term "logic" he reserved to mean *dialectics*. Most of Aristotle's work is probably not in its original form, since it was most likely edited by students and later lecturers. The logical works of Aristotle were compiled into six books in about the early 1st century AD:

1. *Categories*
2. *On Interpretation*
3. *Prior Analytics*
4. *Posterior Analytics*
5. *Topics*
6. *On Sophistical Refutations*

The order of the books (or the teachings from which they are composed) is not certain, but this list was derived from analysis of Aristotle's writings. It goes from the basics, the analysis of simple terms in the *Categories*, the analysis of propositions and their elementary relations in *On Interpretation*, to the study of more complex forms, namely, syllogisms (in the *Analytics*) and dialectics (in the *Topics* and *Sophistical Refutations*). The first three treatises form

the core of the logical theory *stricto sensu*: the grammar of the language of logic and the correct rules of reasoning. There is one volume of Aristotle's concerning logic not found in the *Organon*, namely the fourth book of *Metaphysics*.^[16]

Aristotle's scientific method

Like his teacher Plato, Aristotle's philosophy aims at the universal. Aristotle, however, found the universal in particular things, which he called the essence of things, while Plato finds that the universal exists apart from particular things, and is related to them as their prototype or exemplar. For Aristotle, therefore, philosophic method implies the ascent from the study of particular phenomena to the knowledge of essences, while for Plato philosophic method means the descent from a knowledge of universal Forms (or ideas) to a contemplation of particular imitations of these. For Aristotle, "form" still refers to the unconditional basis of phenomena but is "instantiated" in a particular substance (see *Universals and particulars*, below). In a certain sense, Aristotle's method is both inductive and deductive, while Plato's is essentially deductive from *a priori* principles.^[18]

In Aristotle's terminology, "natural philosophy" is a branch of philosophy examining the phenomena of the natural world, and includes fields that would be regarded today as physics, biology and other natural sciences. In modern times, the scope of *philosophy* has become limited to more generic or abstract inquiries, such as ethics and metaphysics, in which logic plays a major role. Today's philosophy tends to exclude empirical study of the natural world by means of the scientific method. In contrast, Aristotle's philosophical endeavors encompassed virtually all facets of intellectual inquiry.

In the larger sense of the word, Aristotle makes philosophy coextensive with reasoning, which he also would describe as "science". Note, however, that his use of the term *science* carries a different meaning than that covered by the term "scientific method". For Aristotle, "all science (*dianoia*) is either practical, poetical or theoretical" (*Metaphysics* 1025b25). By practical science, he means ethics and politics; by poetical science, he means the study of poetry and the other fine arts; by theoretical science, he means physics, mathematics and metaphysics.

If logic (or "analytics") is regarded as a study preliminary to philosophy, the divisions of Aristotelian philosophy would consist of: (1) Logic; (2) Theoretical Philosophy, including Metaphysics, Physics and Mathematics; (3) Practical Philosophy and (4) Poetical Philosophy.

In the period between his two stays in Athens, between his times at the Academy and the Lyceum, Aristotle conducted most of the scientific thinking and research for which he is renowned today. In fact, most of

Aristotle's life was devoted to the study of the objects of natural science. Aristotle's metaphysics contains observations on the nature of numbers but he made no original contributions to mathematics. He did, however,



Plato (left) and Aristotle (right), a detail of *The School of Athens*, a fresco by Raphael. Aristotle gestures to the earth, representing his belief in knowledge through empirical observation and experience, while holding a copy of his *Nicomachean Ethics* in his hand, whilst Plato gestures to the heavens, representing his belief in The Forms.



"Aristotle" by Francesco Hayez (1791–1882)

perform original research in the natural sciences, e.g., botany, zoology, physics, astronomy, chemistry, meteorology, and several other sciences.

Aristotle's writings on science are largely qualitative, as opposed to quantitative. Beginning in the 16th century, scientists began applying mathematics to the physical sciences, and Aristotle's work in this area was deemed hopelessly inadequate. His failings were largely due to the absence of concepts like mass, velocity, force and temperature. He had a conception of speed and temperature, but no quantitative understanding of them, which was partly due to the absence of basic experimental devices, like clocks and thermometers.

His writings provide an account of many scientific observations, a mixture of precocious accuracy and curious errors. For example, in his *History of Animals* he claimed that human males have more teeth than females.^[19] In a similar vein, John Philoponus, and later Galileo, showed by simple experiments that Aristotle's theory that a heavier object falls faster than a lighter object is incorrect.^[20] On the other hand, Aristotle refuted Democritus's claim that the Milky Way was made up of "those stars which are shaded by the earth from the sun's rays," pointing out (correctly, even if such reasoning was bound to be dismissed for a long time) that, given "current astronomical demonstrations" that "the size of the sun is greater than that of the earth and the distance of the stars from the earth many times greater than that of the sun, then...the sun shines on all the stars and the earth screens none of them."^[21]

In places, Aristotle goes too far in deriving 'laws of the universe' from simple observation and over-stretched reason. Today's scientific method assumes that such thinking without sufficient facts is ineffective, and that discerning the validity of one's hypothesis requires far more rigorous experimentation than that which Aristotle used to support his laws.

Aristotle also had some scientific blind spots. He posited a geocentric cosmology that we may discern in selections of the *Metaphysics*, which was widely accepted up until the 16th century. From the 3rd century to the 16th century, the dominant view held that the Earth was the rotational center of the universe.

Since he was perhaps the philosopher most respected by European thinkers during and after the Renaissance, these thinkers often took Aristotle's erroneous positions as given, which held back science in this epoch.^[22] However, Aristotle's scientific shortcomings should not mislead one into forgetting his great advances in the many scientific fields. For instance, he founded logic as a formal science and created foundations to biology that were not superseded for two millennia. Moreover, he introduced the fundamental notion that nature is composed of things that change and that studying such changes can provide useful knowledge of underlying constants.

Geology

As quoted from Charles Lyell's *Principles of Geology*:

He [Aristotle] refers to many examples of changes now constantly going on, and insists emphatically on the great results which they must produce in the lapse of ages. He instances particular cases of lakes that had dried up, and deserts that had at length become watered by rivers and fertilized. He points to the growth of the Nilotic delta since the time of Homer, to the shallowing of the Palus Maeotis within sixty years from his own time... He alludes ...to the upheaving of one of the Eolian islands, previous to a volcanic eruption. The changes of the earth, he says, are so slow in comparison to the duration of our lives, that they are overlooked; and the migrations of people after great catastrophes, and their removal to other regions, cause the event to be forgotten.

He says [12th chapter of his *Meteorics*] 'the distribution of land and sea in particular regions does not endure throughout all time, but it becomes sea in those parts where it was land, and again it becomes land where it was sea, and there is reason for thinking that these changes take place according to a certain system, and within a certain period.' The concluding observation is as follows: 'As time never fails, and the universe is eternal, neither the Tanais, nor the Nile, can have flowed for ever. The places where they rise were once dry, and there is a limit to their operations, but there is none to time. So also of all other rivers; they spring up and they perish; and the sea also continually deserts some lands and invades others. The same tracts, therefore,

the earth are not some always sea, and others always continents, but every thing changes in the course of time.^[23]

Physics

Five elements

Aristotle proposed a fifth element, aether, in addition to the four proposed earlier by Empedocles.

- Earth, which is cold and dry; this corresponds to the modern idea of a solid.
- Water, which is cold and wet; this corresponds to the modern idea of a liquid.
- Air, which is hot and wet; this corresponds to the modern idea of a gas.
- Fire, which is hot and dry; this corresponds to the modern idea of heat.
- Aether, which is the divine substance that makes up the heavenly spheres and heavenly bodies (stars and planets).

Each of the four earthly elements has its natural place. All that is earthly tends toward the center of the universe, i.e., the center of the Earth. Water tends toward a sphere surrounding the center. Air tends toward a sphere surrounding the water sphere. Fire tends toward the lunar sphere (in which the Moon orbits). When elements are moved out of their natural place, they naturally move back towards it. This is "natural motion"—motion requiring no extrinsic cause. So, for example, in water, earthy bodies sink while air bubbles rise up; in air, rain falls and flame rises. Outside all the other spheres, the heavenly, fifth element, manifested in the stars and planets, moves in the perfection of circles.

Motion

Aristotle defined motion as the actuality of a potentiality *as such*.^[24] Aquinas suggested that the passage be understood literally; that motion can indeed be understood as the active fulfillment of a potential, as a transition toward a potentially possible state. Because actuality and potentiality are normally opposites in Aristotle, other commentators either suggest that the wording which has come down to us is erroneous, or that the addition of the "as such" to the definition is critical to understanding it.^[25]

Causality, The Four Causes

Aristotle suggested that the reason for anything coming about can be attributed to four different types of simultaneously active causal factors:

- Material cause describes the material out of which something is composed. Thus the material cause of a table is wood, and the material cause of a car is rubber and steel. It is not about action. It does not mean one domino knocks over another domino.
- The formal cause is its form, i.e., the arrangement of that matter. It tells us what a thing is, that any thing is determined by the definition, form, pattern, essence, whole, synthesis or archetype. It embraces the account of causes in terms of fundamental principles or general laws, as the whole (i.e., macrostructure) is the cause of its parts, a relationship known as the whole-part causation. Plainly put the formal cause is the idea existing in the first place as exemplar in the mind of the sculptor, and in the second place as intrinsic, determining cause, embodied in the matter. Formal cause could only refer to the essential quality of causation. A more simple example of the formal cause is the blueprint or plan that one has before making or causing a human made object to exist.
- The efficient cause is "the primary source", or that from which the change or the ending of the change first starts. It identifies 'what makes of what is made and what causes change of what is changed' and so suggests all sorts of agents, nonliving or living, acting as the sources of change or movement or rest. Representing the current understanding of causality as the relation of cause and effect, this covers the modern definitions of "cause" as either the agent or agency or particular events or states of affairs. More simply again that which immediately sets the thing in motion. So take the two dominos this time of equal weighting, the first is knocked over causing the

second also to fall over. This is effectively efficient cause.

- The final cause is its purpose, or that for the sake of which a thing exists or is done, including both purposeful and instrumental actions and activities. The final cause or telos is the purpose or end that something is supposed to serve, or it is that from which and that to which the change is. This also covers modern ideas of mental causation involving such psychological causes as volition, need, motivation or motives, rational, irrational, ethical, and all that gives purpose to behavior.

Additionally, things can be causes of one another, causing each other reciprocally, as hard work causes fitness and vice versa, although not in the same way or function, the one is as the beginning of change, the other as the goal. (Thus Aristotle first suggested a reciprocal or circular causality as a relation of mutual dependence or influence of cause upon effect). Moreover, Aristotle indicated that the same thing can be the cause of contrary effects; its presence and absence may result in different outcomes. Simply it is the goal or purpose that brings about an event (not necessarily a mental goal). Taking our two dominos, it requires someone to intentionally knock the dominos over as they cannot fall themselves.

Aristotle marked two modes of causation: proper (prior) causation and accidental (chance) causation. All causes, proper and incidental, can be spoken as potential or as actual, particular or generic. The same language refers to the effects of causes, so that generic effects assigned to generic causes, particular effects to particular causes, operating causes to actual effects. Essentially, causality does not suggest a temporal relation between the cause and the effect.

Optics

Aristotle held more accurate theories on some optical concepts than other philosophers of his day. The earliest known written evidence of a camera obscura can be found in Aristotle's documentation of such a device in 350 BC in *Problemata*. Aristotle's apparatus contained a dark chamber that had a single small hole, or aperture, to allow for sunlight to enter. Aristotle used the device to make observations of the sun and noted that no matter what shape the hole was, the sun would still be correctly displayed as a round object. In modern cameras, this is analogous to the diaphragm. Aristotle also made the observation that when the distance between the aperture and the surface with the image increased, the image was magnified.^[26]

Chance and spontaneity

According to Aristotle, spontaneity and chance are causes of some things, distinguishable from other types of cause. Chance as an incidental cause lies in the realm of accidental things. It is "from what is spontaneous" (but note that what is spontaneous does not come from chance). For a better understanding of Aristotle's conception of "chance" it might be better to think of "coincidence": Something takes place by chance if a person sets out with the intent of having one thing take place, but with the result of another thing (not intended) taking place. For example: A person seeks donations. That person may find another person willing to donate a substantial sum. However, if the person seeking the donations met the person donating, not for the purpose of collecting donations, but for some other purpose, Aristotle would call the collecting of the donation by that particular donator a result of chance. It must be unusual that something happens by chance. In other words, if something happens all or most of the time, we cannot say that it is by chance.

There is also more specific kind of chance, which Aristotle names "luck", that can only apply to human beings, since it is in the sphere of moral actions. According to Aristotle, luck must involve choice (and thus deliberation), and only humans are capable of deliberation and choice. "What is not capable of action cannot do anything by chance".^[27]

Metaphysics

Aristotle defines metaphysics as "the knowledge of immaterial being," or of "being in the highest degree of abstraction." He refers to metaphysics as "first philosophy", as well as "the theologic science."

Substance, potentiality and actuality

Aristotle examines the concepts of substance and essence (*ousia*) in his *Metaphysics* (Book VII), and he concludes that a particular substance is a combination of both matter and form. In book VIII, he distinguishes the matter of the substance as the substratum, or the stuff of which it is composed. For example, the matter of a house is the bricks, stones, timbers etc., or whatever constitutes the *potential* house, while the form of the substance is the *actual* house, namely 'covering for bodies and chattels' or any other differentia (see also *predicables*) that let us define something as a house. The formula that gives the components is the account of the matter, and the formula that gives the differentia is the account of the form.^[28]

With regard to the change (*kinesis*) and its causes now, as he defines in his *Physics* and *On Generation and Corruption* 319b-320a, he distinguishes the coming to be from:

1. growth and diminution, which is change in quantity;
2. locomotion, which is change in space; and
3. alteration, which is change in quality.

The coming to be is a change where nothing persists of which the resultant is a property. In that particular change he introduces the concept of potentiality (*dynamis*) and actuality (*entelecheia*) in association with the matter and the form.

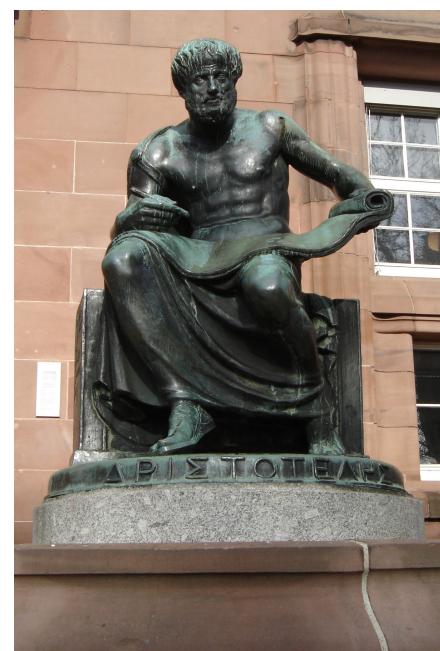
Referring to potentiality, this is what a thing is capable of doing, or being acted upon, if the conditions are right and it is not prevented by something else. For example, the seed of a plant in the soil is potentially (*dynamic*) plant, and if it is not prevented by something, it will become a plant. Potentially beings can either 'act' (*poiein*) or 'be acted upon' (*paschein*), which can be either innate or learned. For example, the eyes possess the potentiality of sight (innate – being acted upon), while the capability of playing the flute can be possessed by learning (exercise – acting).

Actuality is the fulfillment of the end of the potentiality. Because the end (*telos*) is the principle of every change, and for the sake of the end exists potentiality, therefore actuality is the end. Referring then to our previous example, we could say that an actuality is when a plant does one of the activities that plants do.

"For that for the sake of which a thing is, is its principle, and the becoming is for the sake of the end; and the actuality is the end, and it is for the sake of this that the potentiality is acquired. For animals do not see in order that they may have sight, but they have sight that they may see."^[29]

In summary, the matter used to make a house has potentiality to be a house and both the activity of building and the form of the final house are actualities, which is also a final cause or end. Then Aristotle proceeds and concludes that the actuality is prior to potentiality in formula, in time and in substantiality.

With this definition of the particular substance (i.e., matter and form), Aristotle tries to solve the problem of the unity of the beings, for example, "what is it that makes a man one"? Since, according to Plato there are two Ideas: animal and biped, how then is man a unity? However, according to Aristotle, the potential being (matter) and the actual one (form) are one and the same thing.^[30]



Statue of Aristotle (1915) by Cipri Adolf Bermann at the University of Freiburg im Breisgau

Universals and particulars

Aristotle's predecessor, Plato, argued that all things have a universal form, which could be either a property, or a relation to other things. When we look at an apple, for example, we see an apple, and we can also analyze a form of an apple. In this distinction, there is a particular apple and a universal form of an apple. Moreover, we can place an apple next to a book, so that we can speak of both the book and apple as being next to each other.

Plato argued that there are some universal forms that are not a part of particular things. For example, it is possible that there is no particular good in existence, but "good" is still a proper universal form. Bertrand Russell is a contemporary philosopher who agreed with Plato on the existence of "uninstantiated universals".

Aristotle disagreed with Plato on this point, arguing that all universals are instantiated. Aristotle argued that there are no universals that are unattached to existing things. According to Aristotle, if a universal exists, either as a particular or a relation, then there must have been, must be currently, or must be in the future, something on which the universal can be predicated. Consequently, according to Aristotle, if it is not the case that some universal can be predicated to an object that exists at some period of time, then it does not exist.

In addition, Aristotle disagreed with Plato about the location of universals. As Plato spoke of the world of the forms, a location where all universal forms subsist, Aristotle maintained that universals exist within each thing on which each universal is predicated. So, according to Aristotle, the form of apple exists within each apple, rather than in the world of the forms.

Biology and medicine

In Aristotelian science, most especially in biology, things he saw himself have stood the test of time better than his retelling of the reports of others, which contain error and superstition. He dissected animals but not humans; his ideas on how the human body works have been almost entirely superseded.

Empirical research program

Aristotle is the earliest natural historian whose work has survived in some detail. Aristotle certainly did research on the natural history of Lesbos, and the surrounding seas and neighbouring areas. The works that reflect this research, such as *History of Animals*, *Generation of Animals*, and *Parts of Animals*, contain some observations and interpretations, along with sundry myths and mistakes. The most striking passages are about the sea-life visible from observation on Lesbos and available from the catches of fishermen. His observations on catfish, electric fish (*Torpedo*) and angler-fish are detailed, as is his writing on cephalopods, namely, *Octopus*, *Sepia* (cuttlefish) and the paper nautilus (*Argonauta argo*). His description of the hectocotyl arm was about two thousand years ahead of its time, and widely disbelieved until its rediscovery in the 19th century. He separated the aquatic mammals from fish, and knew that sharks and rays were part of the group he called Selachē (selachians).^[31]



Octopus swimming

Another good example of his methods comes from the *Generation of Animals* in which Aristotle describes breaking open fertilized chicken eggs at intervals to observe when visible organs were generated.

He gave accurate descriptions of ruminants' four-chambered fore-stomachs, and of the ovoviparous embryological development of the hound shark *Mustelus mustelus*.^[32]

Classification of living things

Aristotle's classification of living things contains some elements which still existed in the 19th century. What the modern zoologist would call vertebrates and invertebrates, Aristotle called 'animals with blood' and 'animals without blood' (he was not to know that complex invertebrates do make use of hemoglobin, but of a different kind from vertebrates). Animals with blood were divided into live-bearing (humans and mammals), and egg-bearing (birds and fish). Invertebrates ('animals without blood') are insects, crustacea (divided into non-shelled – cephalopods – and shelled) and testacea (molluscs). In some respects, this incomplete classification is better than that of Linnaeus, who crowded the invertebrata together into two groups, Insecta and Vermes (worms).



Torpedo fuscomaculata



Leopard shark

For Charles Singer, "Nothing is more remarkable than [Aristotle's] efforts to [exhibit] the relationships of living things as a *scala naturae*"^[31] Aristotle's *History of Animals* classified organisms in relation to a hierarchical "Ladder of Life" (*scala naturae*), placing them according to complexity of structure and function so that higher organisms showed greater vitality and ability to move.^[33]

Aristotle believed that intellectual purposes, i.e., final causes, guided all natural processes. Such a teleological view gave Aristotle cause to justify his observed data as an expression of formal design. Noting that "no animal has, at the same time, both tusks and horns," and "a single-hooved animal with two horns I have never seen," Aristotle suggested that Nature, giving no animal both horns and tusks, was staving off vanity, and giving creatures faculties only to such a degree as they are necessary. Noting that ruminants had multiple stomachs and weak teeth, he supposed the first was to compensate for the latter, with Nature trying to preserve a type of balance.^[34]

In a similar fashion, Aristotle believed that creatures were arranged in a graded scale of perfection rising from plants on up to man, the *scala naturae* or Great Chain of Being.^[35] His system had eleven grades, arranged according "to the degree to which they are infected with potentiality", expressed in their form at birth. The highest animals laid warm and wet creatures alive, the lowest bore theirs cold, dry, and in thick eggs.

Aristotle also held that the level of a creature's perfection was reflected in its form, but not preordained by that form. Ideas like this, and his ideas about souls, are not regarded as science at all in modern times.

He placed emphasis on the type(s) of soul an organism possessed, asserting that plants possess a vegetative soul, responsible for reproduction and growth, animals a vegetative and a sensitive soul, responsible for mobility and sensation, and humans a vegetative, a sensitive, and a rational soul, capable of thought and reflection.^[36]

Aristotle, in contrast to earlier philosophers, but in accordance with the Egyptians, placed the rational soul in the heart, rather than the brain.^[37] Notable is Aristotle's division of sensation and thought, which generally went against previous philosophers, with the exception of Alcmaeon.^[38]

Successor: Theophrastus

Aristotle's successor at the Lyceum, Theophrastus, wrote a series of books on botany—the *History of Plants*—which survived as the most important contribution of antiquity to botany, even into the Middle Ages. Many of Theophrastus' names survive into modern times, such as *carpos* for fruit, and *pericarpion* for seed vessel.

Rather than focus on formal causes, as Aristotle did, Theophrastus suggested a mechanistic scheme, drawing analogies between natural and artificial processes, and relying on Aristotle's concept of the efficient cause. Theophrastus also recognized the role of sex in the reproduction of some higher plants, though this last discovery was lost in later ages.^[39]

Influence on Hellenistic medicine

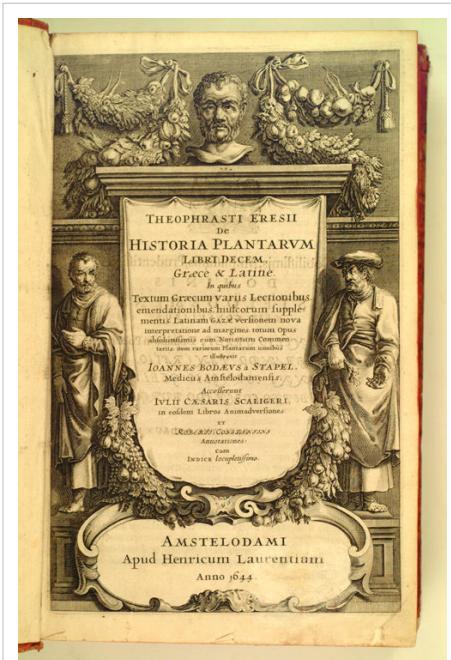
After Theophrastus, the Lyceum failed to produce any original work. Though interest in Aristotle's ideas survived, they were generally taken unquestioningly.^[40] It is not until the age of Alexandria under the Ptolemies that advances in biology can be again found.

The first medical teacher at Alexandria, Herophilus of Chalcedon, corrected Aristotle, placing intelligence in the brain, and connected the nervous system to motion and sensation. Herophilus also distinguished between veins and arteries, noting that the latter pulse while the former do not.^[41] Though a few ancient atomists such as Lucretius challenged the teleological viewpoint of Aristotelian ideas about life, teleology (and after the rise of Christianity, natural theology) would remain central to biological thought essentially until the 18th and 19th centuries. Ernst Mayr claimed that there was "nothing of any real consequence in biology after Lucretius and Galen until the Renaissance."^[42] Aristotle's ideas of natural history and medicine survived, but they were generally taken unquestioningly.^[43]

Psychology

Aristotle's psychology, given in his treatise On the Soul (*peri psyche*, often known by its Latin title *De Anima*), posits three souls ("psyches") in humans: the vegetative soul, the sensitive soul, and the rational soul. Humans share the vegetative soul with all living things, and the sensitive soul with all animals, but only humans of all beings in the world have a rational soul.

For Aristotle, the soul (*psyche*) was a simpler concept than it is for us today. By soul he simply meant the form of a living being. Since all beings are composites of form and matter, the form of living beings is that which endows them with what is specific to living beings, e.g. the ability to initiate movement (or in the case of plants, growth and chemical transformations, which Aristotle considers types of movement).^[44]



Frontispiece to a 1644 version of the expanded and illustrated edition of *Historia Plantarum* (ca. 1200), which was originally written around 200 BC

Practical philosophy

Ethics

Aristotle considered ethics to be a practical rather than theoretical study, i.e., one aimed at becoming good and doing good rather than knowing for its own sake. He wrote several treatises on ethics, including most notably, the *Nicomachean Ethics*.

Aristotle taught that virtue has to do with the proper function (*ergon*) of a thing. An eye is only a good eye in so much as it can see, because the proper function of an eye is sight. Aristotle reasoned that humans must have a function specific to humans, and that this function must be an activity of the *psuchē* (normally translated as *soul*) in accordance with reason (*logos*). Aristotle identified such an optimum activity of the soul as the aim of all human deliberate action, *eudaimonia*, generally translated as "happiness" or sometimes "well being". To have the potential of ever being happy in this way necessarily requires a good character (*ēthikē aretē*), often translated as moral (or ethical) virtue (or excellence).^[45]

Aristotle taught that to achieve a virtuous and potentially happy character requires a first stage of having the fortune to be habituated not deliberately, but by teachers, and experience, leading to a later stage in which one consciously chooses to do the best things. When the best people come to live life this way their practical wisdom (*phronesis*) and their intellect (*nous*) can develop with each other towards the highest possible human virtue, the wisdom of an accomplished theoretical or speculative thinker, or in other words, a philosopher.^[46]

Politics

Like Aristotle, conservatives generally accept the world as it is; they distrust the politics of abstract reason – that is, reason divorced from experience.

Benjamin Wiker^[47]

In addition to his works on ethics, which address the individual, Aristotle addressed the city in his work titled *Politics*. Aristotle considered the city to be a natural community. Moreover, he considered the city to be prior in importance to the family which in turn is prior to the individual, "for the whole must of necessity be prior to the part".^[48] He also famously stated that "man is by nature a political animal." Aristotle conceived of politics as being like an organism rather than like a machine, and as a collection of parts none of which can exist without the others. Aristotle's conception of the city is organic, and he is considered one of the first to conceive of the city in this manner.^[49]

The common modern understanding of a political community as a modern state is quite different to Aristotle's understanding. Although he was aware of the existence and potential of larger empires, the natural community according to Aristotle was the city (*polis*) which functions as a political "community" or "partnership" (*koinōnia*). The aim of the city is not just to avoid injustice or for economic stability, but rather to allow at least some citizens the possibility to live a good life, and to perform beautiful acts: "The political partnership must be regarded, therefore, as being for the sake of noble actions, not for the sake of living together." This is distinguished from modern approaches, beginning with social contract theory, according to which individuals leave the state of nature because of "fear of violent death" or its "inconveniences."^[50]

Rhetoric and poetics

Aristotle considered epic poetry, tragedy, comedy, dithyrambic poetry and music to be imitative, each varying in imitation by medium, object, and manner.^[51] For example, music imitates with the media of rhythm and harmony, whereas dance imitates with rhythm alone, and poetry with language. The forms also differ in their object of imitation. Comedy, for instance, is a dramatic imitation of men worse than average; whereas tragedy imitates men slightly better than average. Lastly, the forms differ in their manner of imitation – through narrative or character, through change or no change, and through drama or no drama.^[52] Aristotle believed that imitation is natural to mankind and constitutes one of mankind's advantages over animals.^[53]

While it is believed that Aristotle's *Poetics* comprised two books – one on comedy and one on tragedy – only the portion that focuses on tragedy has survived. Aristotle taught that tragedy is composed of six elements: plot-structure, character, style, thought, spectacle, and lyric poetry.^[54] The characters in a tragedy are merely a means of driving the story; and the plot, not the characters, is the chief focus of tragedy. Tragedy is the imitation of action arousing pity and fear, and is meant to effect the catharsis of those same emotions. Aristotle concludes *Poetics* with a discussion on which, if either, is superior: epic or tragic mimesis. He suggests that because tragedy possesses all the attributes of an epic, possibly possesses additional attributes such as spectacle and music, is more unified, and achieves the aim of its mimesis in shorter scope, it can be considered superior to epic.^[55]

Aristotle was a keen systematic collector of riddles, folklore, and proverbs; he and his school had a special interest in the riddles of the Delphic Oracle and studied the fables of Aesop.^[56]

Views on women

Aristotle's analysis of procreation describes an active, ensouling masculine element bringing life to an inert, passive female element. On this ground, feminists have accused Aristotle of misogyny^[57] and sexism.^[58] However, Aristotle gave equal weight to women's happiness as he did to men's, and commented in his *Rhetoric* that a society cannot be happy unless women are happy too.

Loss and preservation of his works

Modern scholarship reveals that Aristotle's "lost" works stray considerably in characterization^[59] from the surviving Aristotelian corpus. Whereas the lost works appear to have been originally written with an intent for subsequent publication, the surviving works do not appear to have been so.^[59] Rather the surviving works mostly resemble lecture notes unintended for publication.^[59] The authenticity of a portion of the surviving works as originally Aristotelian is also today held suspect, with some books duplicating or summarizing each other, the authorship of one book questioned and another book considered to be unlikely Aristotle's at all.^[59]

Some of the individual works within the corpus, including the *Constitution of Athens*, are regarded by most scholars as products of Aristotle's "school," perhaps compiled under his direction or supervision. Others, such as *On Colors*, may have been produced by Aristotle's successors at the Lyceum, e.g., Theophrastus and Straton. Still others acquired Aristotle's name through similarities in doctrine or content, such as the *De Plantis*, possibly by Nicolaus of Damascus. Other works in the corpus include medieval palmistries and astrological and magical texts whose connections to Aristotle are purely fanciful and self-promotional.^[60]

According to a distinction that originates with Aristotle himself, his writings are divisible into two groups: the "exoteric" and the "esoteric".^[61] Most scholars have understood this as a distinction between works Aristotle intended for the public (exoteric), and the more technical works intended for use within the school (esoteric). Modern scholars commonly assume these latter to be Aristotle's own (unpolished) lecture notes (or in some cases possible notes by his students).^[62] However, one classic scholar offers an alternative interpretation. The 5th century neoplatonist Ammonius Hermiae writes that Aristotle's writing style is deliberately obscurantist so that "good people may for that reason stretch their mind even more, whereas empty minds that are lost through carelessness will be put to flight by the obscurity when they encounter sentences like these."^[63] Another common assumption is that none of the exoteric works is extant – that all of Aristotle's extant writings are of the esoteric kind. Current knowledge of what exactly the exoteric writings were like is scant and dubious, though many of them may have been in dialogue form. (*Fragments* of some of Aristotle's dialogues have survived.) Perhaps it is to these that Cicero refers when he characterized Aristotle's writing style as "a river of gold";^[64] it is hard for many modern readers to accept that one could seriously so admire the style of those works currently available to us.^[62] However, some modern scholars have warned that we cannot know for certain that Cicero's praise was reserved specifically for the exoteric works; a few modern scholars have actually admired the concise writing style found in Aristotle's extant works.^[65]

The surviving texts of Aristotle are technical treatises from within Aristotle's school, as opposed to the dialogues and other "exoteric" texts he published more widely during his lifetime.

One major question in the history of Aristotle's works, then, is how were the exoteric writings all lost, and how did the ones we now possess come to us?^[66] The story of the original manuscripts of the esoteric treatises is described by Strabo in his *Geography* and Plutarch in his *Parallel Lives*.^[67] The manuscripts were left from Aristotle to his successor Theophrastus, who in turn willed them to Neleus of Scepsis. Neleus supposedly took the writings from Athens to Scepsis, where his heirs let them languish in a cellar until the 1st century BC, when Apellicon of Teos discovered and purchased the manuscripts, bringing them back to Athens. According to the story, Apellicon tried to repair some of the damage that was done during the manuscripts' stay in the basement, introducing a number of errors into the text. When Lucius Cornelius Sulla occupied Athens in 86 BC, he carried off the library of Apellicon to Rome, where they were first published in 60 BC by the grammarian Tyrannion of Amisus and then by philosopher Andronicus of Rhodes.^{[68][69]}

Carnes Lord attributes the popular belief in this story to the fact that it provides "the most plausible explanation for the rapid eclipse of the Peripatetic school after the middle of the third century, and for the absence of widespread knowledge of the specialized treatises of Aristotle throughout the Hellenistic period, as well as for the sudden reappearance of a flourishing Aristotelianism during the first century B.C."^[70] Lord voices a number of reservations concerning this story, however. First, the condition of the texts is far too good for them to have suffered considerable damage followed by Apellicon's inexpert attempt at repair. Second, there is "incontrovertible evidence," Lord says, that the treatises were in circulation during the time in which Strabo and Plutarch suggest they were confined within the cellar in Scepsis. Third, the definitive edition of Aristotle's texts seems to have been made in Athens some fifty years before Andronicus supposedly compiled his. And fourth, ancient library catalogues predating Andronicus' intervention list an Aristotelian corpus quite similar to the one we currently possess. Lord sees a number of post-Aristotelian interpolations in the *Politics*, for example, but is generally confident that the work has come down to us relatively intact.

Legacy

More than twenty-three hundred years after his death, Aristotle remains one of the most influential people who ever lived. He contributed to almost every field of human knowledge then in existence, and he was the founder of many new fields. According to the philosopher Bryan Magee, "it is doubtful whether any human being has ever known as much as he did".^[71] Aristotle was the founder of formal logic,^[72] pioneered the study of zoology, and left every future scientist and philosopher in his debt through his contributions to the scientific method.^{[73][74]} Despite these achievements, the influence of Aristotle's errors is considered by some to have held back science considerably. Bertrand Russell notes that "almost every serious intellectual advance has had to begin with an attack on some Aristotelian doctrine". Russell also refers to Aristotle's ethics as "repulsive", and calls his logic "as definitely antiquated as Ptolemaic astronomy".

Russell notes that these errors make it difficult to do historical justice to Aristotle, until one remembers how large of an advance he made upon all of his predecessors.^[7]



Aristotle with a Bust of Homer, by
Rembrandt

Later Greek philosophers

The immediate influence of Aristotle's work was felt as the Lyceum grew into the Peripatetic school. Aristotle's notable students included Aristoxenus, Dicaearchus, Demetrius of Phalerum, Eudemos of Rhodes, Harpalus, Hephaestion, Meno, Mnason of Phocis, Nicomachus, and Theophrastus. Aristotle's influence over Alexander the Great is seen in the latter's bringing with him on his expedition a host of zoologists, botanists, and researchers. He had also learned a great deal about Persian customs and traditions from his teacher. Although his respect for Aristotle was diminished as his travels made it clear that much of Aristotle's geography was clearly wrong, when the old philosopher released his works to the public, Alexander complained "Thou hast not done well to publish thy acroamatic doctrines; for in what shall I surpass other men if those doctrines wherein I have been trained are to be all men's common property?"^[75]

Influence on Byzantine scholars

Greek Christian scribes played a crucial role in the preservation of Aristotle by copying all the extant Greek language manuscripts of the corpus. The first Greek Christians to comment extensively on Aristotle were John Philoponus, Elias, and David in the sixth century, and Stephen of Alexandria in the early seventh century.^[76] John Philoponus stands out for having attempted a fundamental critique of Aristotle's views on the eternity of the world, movement, and other elements of Aristotelian thought.^[77] After a hiatus of several centuries, formal commentary by Eustratius and Michael of Ephesus reappears in the late eleventh and early twelfth centuries, apparently sponsored by Anna Comnena.^[78]

Influence on Islamic theologians

Aristotle was one of the most revered Western thinkers in early Islamic theology. Most of the still extant works of Aristotle,^[79] as well as a number of the original Greek commentaries, were translated into Arabic and studied by Muslim philosophers, scientists and scholars. Averroes, Avicenna and Alpharabius, who wrote on Aristotle in great depth, also influenced Thomas Aquinas and other Western Christian scholastic philosophers. Alkindus considered Aristotle as the outstanding and unique representative of philosophy^[80] and Averroes spoke of Aristotle as the "exemplar" for all future philosophers.^[81] Medieval Muslim scholars regularly described Aristotle as the "First Teacher".^[82] The title "teacher" was first given to Aristotle by Muslim scholars, and was later used by Western philosophers (as in the famous poem of Dante) who were influenced by the tradition of Islamic philosophy.^[83]

In accordance with the Greek theorists, the Muslims considered Aristotle to be a dogmatic philosopher, the author of a closed system, and believed that Aristotle shared with Plato essential tenets of thought. Some went so far as to credit Aristotle himself with neo-Platonic metaphysical ideas.^[79]

Influence on Western Christian theologians

With the loss of the study of ancient Greek in the early medieval Latin West, Aristotle was practically unknown there from c. AD 600 to c. 1100 except through the Latin translation of the *Organon* made by Boethius. In the twelfth and thirteenth centuries, interest in Aristotle revived and Latin Christians had translations made, both from Arabic translations, such as those by Gerard of Cremona,^[84] and from the original Greek, such as those by James of Venice and William of Moerbeke. After Thomas Aquinas wrote his theology, working from Moerbeke's translations, the demand for Aristotle's writings grew and the Greek manuscripts returned to the West, stimulating a revival of Aristotelianism in Europe that continued into the Renaissance.^[85] Aristotle is referred to as "The Philosopher" by Scholastic thinkers such as Thomas Aquinas. See *Summa Theologica*, Part I, Question 3, etc. These thinkers blended Aristotelian philosophy with Christianity, bringing the thought of Ancient Greece into the Middle Ages. It required a repudiation of some Aristotelian principles for the sciences and the arts to free themselves for the discovery of modern scientific laws and empirical methods. The medieval English poet Chaucer describes his student as being happy by having

*at his beddes heed
Twenty booke, clad in blak or reed,
Of aristotle and his philosophie,*^[86]

The Italian poet Dante says of Aristotle in the first circles of hell,

*I saw the Master there of those who know,
Amid the philosophic family,
By all admired, and by all reverenced;
There Plato too I saw, and Socrates,
Who stood beside him closer than the rest.*^[87]

Post-Enlightenment thinkers

The German philosopher Friedrich Nietzsche has been said to have taken nearly all of his political philosophy from Aristotle.^[88] However implausible this is, it is certainly the case that Aristotle's rigid separation of action from production, and his justification of the subservience of slaves and others to the virtue – or *arete* – of a few justified the ideal of aristocracy. It is Martin Heidegger, not Nietzsche, who elaborated a new interpretation of Aristotle, intended to warrant his deconstruction of scholastic and philosophical tradition. Ayn Rand accredited Aristotle as "the greatest philosopher in history" and cited him as a major influence on her thinking. More recently, Alasdair MacIntyre has attempted to reform what he calls the Aristotelian tradition in a way that is anti-elitist and capable of disputing the claims of both liberals and Nietzscheans.^[89]

List of works

The works of Aristotle that have survived from antiquity through medieval manuscript transmission are collected in the Corpus Aristotelicum. These texts, as opposed to Aristotle's lost works, are technical philosophical treatises from within Aristotle's school. Reference to them is made according to the organization of Immanuel Bekker's Royal Prussian Academy edition (*Aristotelis Opera edidit Academia Regia Borussica*, Berlin, 1831–1870), which in turn is based on ancient classifications of these works.

Notes and references

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Tutti lo miran, tutti onor li fanno:
quivi vid'io Socrate e Platone
che 'nnanzi a li altri più presso li stanno;
Dante, L'Inferno (Hell), Canto IV. Lines 131–135
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- P. Remacle's collection (<http://remacle.org/bloodwolf/philosophes/Aristote/table.htm>) – Greek with French translation
- The 11-volume 1837 Bekker edition of *Aristotle's Works* in Greek (PDF (<http://isnature.org/Files/Aristotle/>) | DJVU (http://grid.ceth.rutgers.edu/ancient/greek/aristotle_greek/))
- Bekker's Prussian Academy of Sciences edition of the complete works of Aristotle at Archive.org: volume 1 (<http://www.archive.org/details/aristotelisopera01arisrich>), volume 2 (<http://www.archive.org/details/aristotelisopera02arisrich>), volume 3 (<http://www.archive.org/details/aristotelisopera03arisrich>), volume 4 (<http://www.archive.org/details/aristotelisopera04arisrich>), volume 5 (<http://www.archive.org/details/aristotelisopera05arisrich>)

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Other

- Timeline of Aristotle's life (http://www.concharto.org/search/eventsearch.htm?_tag=timeline of aristotle&_maptype=0)
- Aristotle (<http://planetmath.org/encyclopedia/Aristotle.html>) at PlanetMath
- Works by or about Aristotle (<http://worldcat.org/identities/lccn-n79-4182>) in libraries (WorldCat catalog)

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