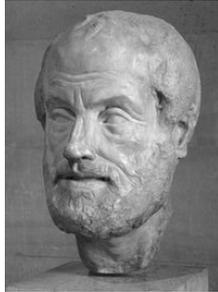


5 EVIDENCE



Writing is so complex an activity, so closely tied to a person's intellectual development, that it must be nurtured and practiced over all the years of a student's schooling and in every curricular area. – Barbara Walvoord

5.1 Aristotelian Rhetoric

We have talked about three different building blocks of academic writing—grammar, structure, and content—and this chapter will begin to focus on the third. To repeat our discussion in chapter one, all three are necessary to good writing. Again, think of a camera tripod. If one leg is missing, the whole thing topples over. A paper that is grammatically correct, with a fluid, lucid arrangement of ideas, about a subject lacking a point or proof—is worthless. Again, there are genres of writing intended solely to inform the reader, such as journalism, but most academic papers deal with arguments.

In earlier chapters we examined how to construct arguments and thesis statements, but also how to arrange or present your thesis in a structured way that makes it easy for the reader to understand and be persuaded by

your ideas. This is still part of the discipline of rhetoric—the methods and tools of convincing an audience of your viewpoint. In this chapter we will talk about the forms of rhetoric in more detail as they concern the content of your argumentation.

Much of the western tradition of thought came from the sequence of Socrates, his student Plato, and his student Aristotle—in fact many subjects and the western university itself to an extent originate from the academy they founded. Aristotle (384-322 BC), who was in his day a polymath responsible for fostering many fields of inquiry, from the sciences to philosophy, can also be said to be one of the fathers of rhetoric. 23 centuries later composition theorists still owe a great deal to Aristotle, who along with the Romans set some of the ground rules for successful argumentation.

Rhetoric is the art and technique of persuasion, and Aristotle believed it to be so important that he viewed it as one of the three branches of philosophy along with logic and dialectic (discussion practices). Aristotle was chiefly interested in *spoken* rhetoric, the rules for convincing a jury or a group of voters or policy-makers. I keep emphasizing that speeches and academic papers are different, but much of what Aristotle says about making a winning speech also applies to good writing. His methodology breaks down into yet another group of three components, which he calls *modes of persuasion*: *logos*, *pathos*, and *ethos*.

Rhetoric does value a well-crafted argument for its own sake, but essentially rhetoric is audience-oriented—another Greek term in the discipline is *kairos* (καιρός), which simply refers to choosing the right ‘moment’ or occasion to persuade. A good rhetorical argument is one which successfully sways the speaker's listeners, and only

indirectly one involving true statements. As I mentioned in the planning chapter, it is tempting to think of your paper's audience as the instructor and go no further, but again ideally you should be visualizing a readership of academic peers as knowledgeable as you are about your general subject, but less aware about your specific area of interest in it.

5.2 Logos (λόγος)

Logos is easy to recognize as its etymological descendant, *logic*. Logos asks, is the argument logically sound? Does the argument make reasoned sense? Does it consist of principles that do not conflict and which support a conclusion, however it is framed? Does it derive a conclusion from factual or statistical evidence?

Admittedly, this discussion of logic will be rather western. One of the deal-breakers of classical Greco-Roman logic is the principle of non-contradiction; you cannot argue A is B and also A is not B. A western reader is unlikely to accept an Asian Yin-and-Yang assertion that A is really both B and not B. This is especially so in my experience in the United States. Once more, considering your audience's prior background before framing your arguments is essential.

Again, technically, rhetoric is concerned with the *appearance* of sound reasoning and truth in order to convince an audience. For this reason rhetoric often has a bad connotation in popular usage—a politician's speech might be mocked as mere rhetoric, beautiful words that obscure lies or inaction. Aristotle's forebear Plato still took a dim view of rhetoric, seeing it as the seductive sophistry which unfairly condemned Socrates to death. Nevertheless, an argument based on solid reason and

genuine conviction is more likely to be an actually true one, and such an argument will probably be easier to persuade an audience of than one knowingly flawed and dubiously held.

Facts, whether empirical observations, statistics, or conclusions are obvious forms of logos, as are related *groups* of facts. For the Greeks a favorite rhetorical device was the *syllogism*, made of a major premise, minor premise, and conclusion:

Major: Only people wear glasses.

Minor: Fred wears glasses.

Concl.: Therefore, Fred is a person.

Mr. Kim claims he saw an owl at the time of the crime. The crime happened in daytime, and owls are nocturnal. Therefore, Mr. Kim cannot be correct.

These are logical conclusions derived from premises. Logic can of course be faulty, where one or both of the premises are incorrect or they don't match, resulting in a false syllogism:

Only people wear glasses.

Mary does not wear glasses.

☒ Therefore, Mary is not a person.

A famous problematic syllogism is the promise the witches make to Macbeth. They tell him:

No man born from a woman can hurt you.

Macbeth thinks: *Every* man is born from a woman!

☒ Therefore, Macduff can't possibly hurt me.

The climax of the play is where Macduff reveals that he was delivered by caesarian section—thus *technically* he was never born—and he kills Macbeth. The syllogism is strictly true, but misleading. Does your syllogism actually prove what you believe it is proving? What if a *woman* were to kill Macbeth?—she would also not be ‘a man born from a woman,’ correctly following the letter of the syllogism but being flawed in practice.

The benefit of a logos argument is that if it is soundly correct it can be extremely persuasive, as hard logic is difficult to refute. A paper based on logos can be a straightforward paper to write because you are dealing with principles that act much like mathematical symbols. This is no accident, for the ancient Greek philosophers thought of logic in exactly such terms, esteeming mathematics as the purest subject. It is no surprise that Aristotle esteemed logos above the other forms of persuasion.

The problem is that if you have any faulty logic the entire paper collapses rather spectacularly. If your paper contradicts itself—you write that women should do military service and later argue that they should not—your paper will crash as well.

Bad Logic

These arguments display faulty logic or are otherwise suspect as evidence. For a fuller list go to <https://yourlogicalfallacyis.com>. Recognizing that the example statements are factually false is not the point—obvious situations are used to clearly illustrate the concepts involved. Rather, try to grasp the abstract reasoning of *why* the logic underlying these statements is flawed. The first reaction of students is to say “I would

never do this.” But the reasoning errors committed here *do* show up in student papers.

1. *False Analogy / Comparison*. Why do I need to wear clothes in church? I don’t have to wear clothes in the bathtub. (The situations are not the same.) Or: Why does Korea have military service when New Zealand doesn’t? (New Zealand is not bordered by a nuclear-armed state—or bordered by anyone, being an island.) False comparison claims often happen in literature papers when students compare time periods: “The Wife of Bath is foolish to depend on her husband when women now can just live on their own.” Present-day society is not the same as the one of 1386 was.
2. *False Premise*. Everyone wants to live to old age. Fitness and good eating habits are essential to longevity. Therefore, everyone should exercise and eat well. (This may be true, but not everyone wants to live to old age.) Or: Gatsby’s racism causes him to work hard to be rich, and this wealth allows him to try to get Daisy back. (The latter is true, but no proof is given that Gatsby is racist.)
3. *False Equivalence*. “There are many opinions about the moon. Scientists believe it is made of rock. Some people believe it is made of cheese.” (The fact that there are opposing opinions on a topic does not mean you need to give both equal respect or space in your paper.) A variation on this is the *Middle Ground* error, where the writer tries to be ‘reasonable’ by taking a middle point between two arguments. It’s laudable to consider the opposing viewpoint, but not always a virtue to compromise—deciding that the

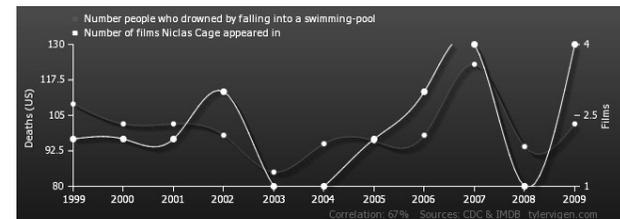
moon is perhaps made of *extremely hard cheese* to please both sides is a silly concession.

4. *Ad Hominem* ('against the man'). Dr. Jones's opinions can't be believed. He has a strange nose and a creepy mustache. (Dr. Jones's personal appearance has no connection to the validity of his claims.) Similarly, to me criticizing Bill Clinton's presidency because he had an affair is irrelevant, although a student did point out to me that his private morality could affect his presidential decisions. This is a fair claim. But to me this conclusion can't simply be assumed; it requires evidence.
5. *Bandwagon*. In a recent study, 87% of respondents indicated that refugees will cause crime; this is why the new law should be passed. (Surveys aren't necessarily right.) A popular belief or conclusion may be interesting—arguably it may even be *supplementary* evidence—but it cannot be assumed correct because a majority thinks it is. Crime *might* rise or not, but it would be better to quote a statistician, not a survey of the public. It doesn't matter whether the public thinks gravity is real or not.
6. *Either / Or Fallacy*. Either you are our nation's ally or you are on the side of Al Qaeda—or ISIS or the Chinese or Indians or Danish or whoever this week. (The statement pretends only two choices exist.) Or: Your mother tells you, your room can be clean or it can be a pigpen. But this pretends that your room must be one *or* the other, and no gradations between fastidiously spotless and filthy are possible. In literature: "Macbeth is either crazy or he isn't." (Insanity can occur along a wide spectrum; it may

also be possible that Macbeth's sanity changes throughout the play.)

7. *False Cause, or Coincidence Fallacy*. All of the teenagers at this school with tattoos have discipline problems. Thus tattoos lead to discipline problems. (One event does not necessarily cause the second.) This is a surprisingly common logic error—the problem may be that the order of events is misunderstood (does infidelity cause divorce, or did preexisting marital problems cause both?). Or, there may be no relationship; this is called a *non sequitur*, meaning there is no sequence: If a new iPhone is released and then it begins to rain more, it's unlikely that one action caused the other.

Number people who drowned by falling into a swimming-pool
correlates with
Number of films Nicolas Cage appeared in



	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Number people who drowned by falling into a swimming-pool Deaths (US) (CDC)	109	102	102	98	85	95	96	98	123	94	102
Number of films Nicolas Cage appeared in Films (IMDB)	2	2	2	3	1	1	2	3	4	1	4
Correlation: 0.666004											

An internet image showing silly (but technically true) correlations between different statistics.

8. *Circular Argument*. A Greek salad is healthier than pizza because it is better for you. (The "reason" simply re-states the first argument.) This argument is also known as 'begging the question' (*petitio principii*).

Another example is: “same-sex marriage is wrong because marriage is a bond between a man and a woman.” Or: “Bonderby is a villain because he tries to hurt people for his own benefit.” Note that ‘begging the question’ does *not* mean ‘invite the question,’ as it is often misused.

9. *Cherry-Picking*. Hitler was an excellent leader and a good person. Under his government, Germany built the autobahn and introduced the highly efficient Volkswagen. Hitler loved dogs and was kind to his pets. (While true, these are highly selective facts ignoring the larger evidence.) A variation of cherry-picking in literature papers is ‘quote mining,’ where a single incidence or a small number of excerpts from a text are used to support a large claim; or worse, contradictory textual passages are ignored or discounted. Shakespeare uses the word ‘grapes’ nine times in all of his writings—to argue that his love of grapes is the key to understanding his plays would be ridiculous. Unfortunately, quote mining is a depressingly common event in Shakespearean criticism—I’m not sure the ‘grapes’ claim would stand out.
10. *No True Scotsman*. “x-people are lazy.” “But look at Susan! She has two jobs and does charity work!” “Then she must not be a true x, because x-people are lazy.” (Evidence contradicting the position is discounted *because* it contradicts the position.) This logical error is also called *special pleading*, where you seek to rule out any examples which don’t support your prejudice: A country without religion would be better—but North Korea, Soviet Russia, and revolutionary France don’t count.

11. *Ad Snarkium*. “Only an idiot would argue that cigarette smoking should be abolished, or a look-at-me PC grouchy-grinch who hates freedom.” (Insults and sarcasm are not proof.) Here the opposing position is phrased in a mocking way to make it sound foolish. Sadly, this is a logic error constantly present in internet discussion threads. A variation on *ad snarkium* is the “scarecrow” argument, where you deliberately misrepresent the opposing argument to make it easier to counter: “Gun advocates, who believe that mistaking their pet dogs for burglars and marrying their cousins is more fun than learning to read, argue that...” Of course you can make negative arguments about gun owners, but the statement above does not fairly describe a position.
12. *Selection Bias*. The survey we conducted in the Ediya Café shows that 68% of Koreans like jazz music. (But people who drink coffee in cafés are more likely to like jazz music than the general public. The survey erred in only questioning those people.) A variation on selection bias is *sample error*: The four engineers we surveyed prove that 75% of experts believe that the city water supply is safe. (There are many engineers and the tiny number surveyed may not be representative.)
13. *Slippery Slope*. If people are allowed to pirate software files, they will gradually lose respect for all laws, and they will try to do whatever they want, including murder, terrorism, and cannibalism. (It is not necessarily true that people will do this in practice.) Or: If small children are allowed to stay up an hour later, they will continually beg to stay up an hour later. (This is true to an extent, but children cannot

stay up 24 hours a day—eventually they will stop begging.) Note that later in our list these logic errors are becoming more subtle. Whereas a false premise argument is nearly always wrong, an argument which appeals to consequences may not always be a slippery slope one. Some people believe marijuana use is a gateway or slippery slope to using heavier drugs, but some activists dispute this claim with statistics or other arguments.

14. *Moving the Goalposts*. “President x, whom I like, was very educated because he had a master’s degree, but President y, whom I dislike, was stupid.” “But President y had a doctoral degree.” “Yes, but President x held office in 1903, when few people had degrees, and so he was better educated than most.” (Is it fair to compare educational qualifications between 1903 and now? Maybe, yes, no?) This is moving the goalposts, based on the literal idea of unfairly trying to place your own soccer team’s posts in a better position. Evidence for the opposing side of your argument is held to harsher standards than your own—here by using dubious reasoning to favor a president you prefer.

Grey Evidence

I’ve used obvious examples to illustrate these errors, but in life logical flaws in arguments aren’t always so clear-cut. As well, as I indicated, in some of these examples they only *may* be logically flawed. One of the more advanced abilities you will need to develop as a writer while reasoning out problems is that of evaluating *degrees* of factual error; it may not always happen that a statement is entirely true or false. A slippery slope argument may be

only *mostly* false (the software pirates may not progress to being mass murderers, but they *may* lose respect for electronic property laws and other rules); the sequence of events may be partly but not *entirely* be a coincidence fallacy (what if increased production of new iPhones causes air pollution in cities with factories?) It may very well turn out that the thesis of your paper lies in debating whether an argument made concerning your subject is an error of logic or not.

Moreover, as noted, not all arguments using survey evidence showing a majority supports a viewpoint are bandwagon errors. If a majority believes something, it does not compellingly show something to be factually true and you cannot assume it to be so on that basis; but you might state the evidence as background support showing there is a good circumstantial likelihood something is true. A study showing 94% of people believe something does not prove but does imply a greater probability that it is true. This might be called ‘grey’ evidence, and using it carefully is a delicate skill.

5.3 Pathos (πάθος)

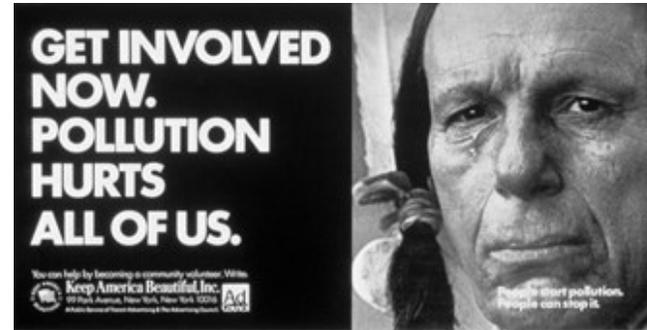
A pathos strategy asks: Does the argument move people’s hearts to care? Does it have an emotional appeal to bring the audience to agree?

Aristotle himself argued that logos is the purest form of rhetoric and that other forms of persuasion are useful but less respectable ways of pursuing an argument. Perhaps a little arrogantly, he saw pathos as an unfortunate necessity for an ignorant public which requires frequent spoon-feeding—in a *perfect* world cold logos would be enough. Yet Aristotle prudently saw that pathos works.

Pathos sounds like *pathetic*, which suggests disgust or disappointment: “Every day you come to work drunk! That’s pathetic!” In a movie, pathos may simply refer to a sad or tragic story. Like *argument*, the word has an everyday meaning and an academic meaning. What Aristotle means by pathos is using emotions and the power of a dramatic delivery to sway an audience’s feelings and make them agree with you. Again, he was talking about oral speech, which implies other tools of swaying people’s hearts (diction, body language), but many pathos techniques apply equally to text.

When I was a boy it was much more acceptable to ride in a car on the highway eating a hamburger and then throw the paper wrappers out the window. Littering is now far less socially acceptable in the west than it was at the time, partly because of advertisements which stigmatized people who litter as irresponsible and selfish. Similarly, it was once regrettably funny to joke about driving drunk in old movie comedies or in popular culture, or even domestic violence. Most people would find such joking offensive or tasteless now, and much of this social change is because of government-sponsored campaigns relying on pathos arguments.

The USA had a public service commercial in the early 1970s which featured little more than someone throwing rubbish out of their car window and a native Indian seeing this and weeping as the car drove away. A logos-based commercial discouraging litter based on dry statistics and facts about animal deaths or car fatalities might have convinced the public in their heads, but not their hearts. In a country where people remain sensitive about the fraught history of first nations relations, this emotional strategy was far more effective in changing people’s behaviors.



Keep America Beautiful ad campaign, 1971

More recently, the Michelin tire company had a series of commercials where babies play on the tires. A series of dull statistics proving that certain tires function better under selected emergency situations could be effective, but the image of the babies raised powerful protective emotions in parents that made them equate the tires with safety. This advertisement campaign was also highly successful, particularly with mothers. Advertisers can be experts at moving people to identify with a product based on primal emotions of sex, power, adventure, or security. Notice when observing advertisements for alcoholic beverages or other products how the objects are held, what body gestures the models have, and what colors and fonts are employed. These features are often very carefully calculated to suggest sexual meanings or other emotional or physical responses.

As noted, Aristotle’s forebears disapproved of pathos. The main objection to using it was and is that it has the potential to mislead people, to dishonestly manipulate them into accepting positions that would be properly recognized as false using reason. That is admittedly sometimes true. Pathos arguments are much

like rich desserts. They can complement a reasoned position very well in small amounts, but an entire meal of pie would make people nauseated and unsatisfied. They require judicious use to avoid having a text full of overblown melodrama that convinces no one.

If your thesis statement is *solely* an emotional claim, it may (or may not) have no actual claim to logos-based reason: “Look at this poor single mother—how can people support sex education in school?” is a statement relying on dubiously related propositions (how does sex education cause single mothers?); but more problematically, its argument lies mostly in trying to make readers feel guilty over single mothers so that they will accept the thesis statement. In fact, an “appeal to emotion” is sometimes categorized as another logical fallacy. Or, to be more ridiculous: “Drunk driving is good because it is fun. Why do some people hate fun?”

A passionately emotional argument praising fun as a reason for allowing drunk driving would be at best ludicrous and at worst ethically dishonest. Some readers might be moved to accept a false argument, and others would be annoyed at the attempt to manipulate them. Perhaps at some time in your life you have been irritated after watching a movie which used music and emotions to endorse behavior or ideas you disapproved of—someone had an affair on their spouse as beautiful music played and the two walked in cherry blossoms. A classic example is the Nazi propaganda movie *Triumph of the Will* (1935), which used music and imagery to corrupt its audience into emotionally accepting the Nazi program.

Academic arguments should not be based on pathos alone, but it can be used effectively to support and give flavor to a reasonable logos argument. A politician who has solid arguments *and* an ear for powerful, moving

images that resonate with the crowd’s passions will be more successful. In writing, particularly if the position is controversial, taking a tone which attempts to identify with and find common cause with the reader will likely be more persuasive.

Often personal examples are an effective use of pathos. If you write a paper about alcoholism in university students you could detail a list of statistics about fatalities, expulsions, broken relationships, or academic problems that result from binge drinking. All this could be very convincing as evidence. But if you included a short anecdote about a dormitory roommate of yours who had a drinking problem, and mentioned some of the problems that person experienced, such as a sexual assault or failing out, that sort of personal anecdote is not only relevant but highly persuasive in capping your other arguments.

A personal story is also one of the few situations where using ‘I’ is warranted in academic writing. Often ‘I’ should be avoided because it is redundant—we already know you are the writer and something is your viewpoint—but there are circumstances where it is useful as a pathos strategy. The only danger in using personal references in an anecdote is that you must be careful to keep the story brief and on-topic. The temptation is to continue talking about yourself and to lose sight of the subject of the paper. Thus using ‘I’ is also an editing topic to which we will return in a later chapter.

My science and engineering students are likely to object here that their papers are unlikely to have pathos as rhetorical strategies. Are there really feelings at play when discussing a chemical reagent or gas sequestration technique? Aristotle can’t answer to such problems, but he would likely reply that there is a *kairos* moment to do

things—some topics and disciplines are naturally going to be more or less applicable to a pathos rhetorical strategy. Thus yes, pathos will probably be rare in a STEM paper—although I would venture that there might be appropriate moments in an introduction or conclusion to state that a certain process has implications regarding some sympathetic human goal. It is not over-sentimental to note that a scientific finding might make people’s lives safer or happier, or to quote the widow of someone who drowned before discussing an electrolytic process for making concrete stronger.

Is it possible to apply pathos in a literature paper? Also less so. Probably there is little range for pathos in a paper on Shakespeare—how is your own experience relevant to something written 400 years ago? There might be exceptions, such as a paper discussing your own or the audience’s response to the play’s performance—but again, unless the paper is explicitly about this question, it could very well turn into an essay about *you*, forgetting about the text. However, in deploying a brief pathos strategy, the pathos need not be your *own*. One could perhaps write a paper defending Charlotte in *Pride and Prejudice* against the charge that she marries for cold advantage rather than love, and the essay could note that Charlotte has few choices given the bad luck she has (plain looks, little family wealth, a backwater village) in order to evoke the reader’s emotional sympathies.

5.4 Ethos (ἦθος)

Ethos asks: Do I trust you? Does the argument seem to have credibility and authority? Does the paper give the sense that the writer is deeply knowledgeable? Ethos refers to the atmosphere of credibility created in the

paper and the level of confidence which the reader has in the writer. Do not confuse *ethos* with *ethics*. There is some overlap in that a good person might be more honest, but ethos is technically unrelated to the personal morals of the writer—it is concerned with the audience’s perception of his or her competence. U.S. President Richard Nixon may not have been an ethical politician, but as an educated and important man his writing would certainly have ethos. Morally dubious figures such as American statesman Henry Kissinger or ex-president Park Geun-Hye might not be ethical models, but they may have credibility in discussing the historical events they witnessed. There are of course limits; a scholar who committed a horrendous crime might be a gifted public intellect but his or her ideas would nevertheless be tainted and viewed with distrust.

Aristotle, once again, discussed ethos in the speech act and not in writing. In his view, logos ought to be sufficient to convince intelligent people, but in practice it isn’t. He likely also observed with reluctance that how one speaks and looks can be as important in persuading an audience as the speech’s content. Someone who has gravitas and a deep, commanding voice and clear elocution, and a mastery of the rhythms of speech will be more persuasive in moving an audience than a subject expert with a halting, shaky voice who has an untidy appearance. In English we say “Gold in the pockets of fools is still gold,” meaning that the truth is the truth no matter who says it, but in daily life reality does not support these beautiful aspirations. People pay attention to the credibility and impression of the person speaking and how they are perceived by others in a social context—to an equal or even greater extent than they pay attention to what is said.

Textually, ethos reflects a certain intimacy between the writer and the reader. There is a feeling of closeness in the written word not found in a speech to a group of people: You are holding a piece of paper face to face—physically if not at least virtually—and there is a kind of bond between you and the reader, who is trusting you with his or her time. You will never put your heart on the line the way you will if you write someone a love letter, committing yourself to a piece of paper. The girl may not accept you, but she will probably keep that letter for the rest of her life.

Visual and Textual Ethos

I argue that there are two main forms of ethos in writing, visual and textual. Visual credibility comes from having a professional presentation, using correct text formats and layout, and a standardized visual appearance. This is partly why composition instructors teach citation systems such as MLA and APA—using them correctly gives the impression to the reader that the paper belongs within a community of scholars.

Even where no actual citation system is specified, the paper's typography and appearance performs (or does not perform) ethos. Using clean paper with Times New Roman in clear, black ink gives an impression of authority and academic seriousness which Hello Kitty paper and Comic Sans does not. This ought to be obvious. But I have received undergraduate papers with interesting content that visually looked terrible. I have had papers that were dirty, crumpled, smeared with ink or rain, on pink paper, or even smelling of marijuana. Such details are going to detract from the readability of the paper and your reader's confidence in your ideas.

I sometimes have students who use gigantic fonts or supersized margins. They are asked to use 11 or 12 Times New Roman or Ariel fonts, generally the standard for academia, and they use a calligraphy font or some ridiculous typeface in 24-point size. They do this because they were asked to write five pages and they finish three and run out of ideas or effort, and believe that they can simply enlarge the font to stretch the text over more pages. The result looks lazy and juvenile, and you diminish trust and ethos in your reader, who can see what you are trying to do.



Allegorical Figure of Rhetoric,
by Giuseppe Cesari

These statements are not rules for the sake of rules, but a concession to human psychology. The *appearance* of knowing what you are doing (even if you don't) will have an effect in convincing your reader that you are competent and that your arguments are strong ones. As with many aspects of rhetoric, it's possible to disguise bad writing by prettifying its presentation, and again for this reason *rhetoric* often has a negative connotation; but optimally, professional visual appearance complements and reinforces professional content.

Secondary Ethos

The other way of building ethos is to make the textual content of the paper more credible, and a major way to do this is using external sources. An e-mail written to a friend recommending an action requires little secondary support—you should go to Mexico because I had fun there—and you can trust my personal experience. But a formal academic paper cannot rely on this relationship, and even if the reader does know you or of you by reputation, you don't have first-hand experience of Victorian England or King Sejong to give yourself authority with.

There is a cliché that U.S. president Ronald Reagan wasn't intelligent but knew to surround himself with gifted advisors. In the same way, using the knowledge of others who are credible and prominent in your field will make your ideas stronger by association with these experts. This is one of many reasons why academic papers quote from secondary sources and refer to outside authorities; as with paper standards, using them will improve your standing by situating yourself as a member of a community discussing its concepts and ideas. This is such an important part of academic writing that it requires a separate chapter.

In summary, a paper might proportionately use any or all of these lines of argumentation in marshalling evidence: logos, pathos, or ethos, bearing in mind that some subjects and fields may gravitate toward one or more rhetorical approaches. But there is no rule; each section in your essay could even take a different evidentiary strategy if it works for your purposes. Some forms of evidence are also multiform—a statistic might be simultaneously a logos and ethos strategy.