Methods of Argument
By Judy Baker

Table of Contents

What is and isn't argument?

It is useful to distinguish between forms in which we present a subject to see where argument fits in the spectrum:

Data	objective measurements or records of specific events or entities
Information	observations or descriptions of the patterns or meanings of data
Fact	information about a subject endorsed/widely accepted by the established body of experts of a field
Opinion	view or belief about a subject, identified with individuals or subjective contexts
Persuasion	stance or position on a subject, advocated to an audience in pursuit of support/agreement
Argument	proposition or hypothesis about a subject proven valid with a test accepted by the audience's field or context
Theory	consensus thesis reached through documented testing and deliberation by the established body of experts of a field

Examples from social and health sciences:

Data	The surrender of Japan was signed on September 2, 1945.
Info	This document agreed officially to an "end of hostilities" by the Japanese.
Fact	World War II ended in 1945 [at least in terms of armed combat between the US and Japan].
Opinion	It was right/wrong for the US to use the atomic bomb on civilian populations to "end the war."
Persuasion	The alliances and conflicts that existed at the end of WWII still drive much of international politics.
Argument	The Marshall Plan made the current European Union prosperity possible.
Theory	Mechanization of combat changed the course of military conflict permanently.
Data	The scale says I weigh 150 lbs.
Information	That's considered "overweight."
Fact	Being overweight has been found to increase risk of many diseases, so it is considered unhealthy.
Opinion	I don't want to get painful or debilitating diseases, but I don't want to suffer too much pain or inconvenience to avoid them, either. I like my life the way it is; I just want to be healthier.
Persuasion	My doctor says that the best way to reach and maintain a healthy weight for middle-aged women is to reduce their daily calorie intake and increase low-impact exercise per week, not any specific diet or regimen that I would find weird.

Argument	If my daily calorie intake is 1400-1600 and my average weekly exercise 5-6 hours, my weight should drop to the "healthy" range [BMI 25] in 10 weeks. If I maintain 1600 daily calories and 5 hours of weekly exercise, my weight should stabilize. If not, there may be underlying medical conditions I need to have investigated for possible treatment.
Theory	Body Mass Index [BMI] indicators determine healthy and unhealthy weight levels as factors of risk for disease in the general population.

The Classical Greek concepts of appeals to reason, authority/ethics or emotion (*logos*, *ethos* and *pathos,* respectively**)** capture the broad spectrum of ways to present a subject to an audience:

Pathetic appeals provoke the audience to "experience" an emotional connection to the subject (**You deserve a break today**).
Ethical appeals ask the audience to agree to a set of standards for judgment of a subject (**9 out of 10 doctors recommend***…*).
Logical appeals invite the audience to weigh evidence and reasoning and endorse a conclusion (**You can't win if you don't play**).

Persuasion and argument are very close. They both seek to convince an audience of the truth of a subject, but they differ in their approach. Persuasion asks the audience to "feel" a certain way or "accept" a certain view about a subject, essentially *pathos* or *ethos,* although it commonly includes logical appeals to justify its stance. Argument asks that the audience consider findings that **examine, reveal insight about, challenge, clarify, or alter understanding of a subject in the form of a proof**, essentially *logos*, with a dimension of *ethos* as the "rules of argument." Argument uses *pathos* sparingly (or at least subtly), because subjectivity is seen as a barrier to establishing validity (as opposed to garnering agreement)—see discussion of standards of argument below.

Arguers can effectively integrate facts, opinions, theory and even persuasion into their proof. The integration is accomplished through **reasoning**—which is another way of saying, **justifying why information is relevant and useful**. At base, reasoning answers questions the audience might logically ask, like:

Data	Who, what, where, when and how was this collected? (needs context to be interpreted)
Information	Why is this data useful or meaningful? (needs analysis to be understood)
Fact	Okay, so….? (needs connection to a purpose)
Opinion	…says who? (needs credibility to become fact or elaboration to become persuasion)
Persuasion	This position matters…why? (needs explanation for audience to agree, needs testing to become argument)
Argument	Is that so? Prove it! (needs evidence and reasoning to derive results that VALIDATE)
Theory	…applies to new contexts how? (needs application to a purpose)

Basic Toulmin Analysis of Argument
Expert teachers, like the authors of *Everything's An Argument,* explain that recognizing the fundamental components of argumentation guide us in proving or evaluating the validity of any argument. They cite Stephen Toulmin, leading theorist on argument, who classified the components as:

Claim	explicit statement that some proposition is valid	X is true...
Reason	explicit or implicit (even self-evident) corollary answering the question because *why* would that claim be valid?	X is true [claim] because... Y test will show 'X is true' to be valid [reason]
Warrant	assumption or qualifier implicit in the claim and/or reason that must be accepted by the audience for the argument to be plausible	X is my hypothesis, Y will test it, and my plan is reasonable *if we agree Z conditions apply...*

As you can see, reasons and reasoning—justification and justifying—are the core of logical appeals. Argumentation is the process of presenting information (evidence) and reasoning to determine the validity or invalidity of a claim.

Advanced Toulmin Analysis of Argument
Toulmin goes on to trace the process of argument as addressing backing and grounds, sub-claims (often called *points*), that, combined together, lay out the proof for a complex argumentative claim, reason and warrants (which, combined together, make a thesis). Backing points offer proof that you share the critical assumptions your audience has about your subject—that you see eye to eye on what you're talking about. Grounds points are the sub-claims that you reason through to analyze your test results—showing step by step how you got to your conclusions.

Example Toulmin Analysis from Basic through Advanced

Basic Toulmin

What claim is being made?
I am 5'3"
What is the reason [test] that the claim is true/valid?
…because using accepted measuring methodology shows the length of my body currently corresponds to this measurement
What are significant warrants of this claim and reason?
…assuming that the following conditions apply:
         Measurement is standard (not metric: I'm not 5 meters, 3 centimeters)

"My body" is defined as my flattened feet to the top of my head (no fair adding my hair, hat, disco shoes, etc!)
"Length" is vertical height of my body in perpendicular intersection with a flat surface (not my width, volume, age, etc)
No other measure is more relevant than this one for the situation (like say, my blood pressure after an accident)

So, what is the OVERALL argument to be proven? (thesis)

Applying accepted measuring methodology indicates that Judy Baker's body has a height of 5 feet, 3 inches.

Advanced Toulmin

Backing for Warrants (need to be proven to establish thesis is plausible):

Measurements are standard
"Body" is flattened feet to the top of head
"Length" is vertical height
Height measurement is relevant for the situation

Grounds for Claims (need to be proven to show thesis' claim passed the test of its reason):

Accepted measuring methodology was used. [perpendicularity, calibration of instruments, credentials of measurer, etc]
Body length was justifiably determined to be 5 feet 3 inches. [rounding method, outlier data, etc]

Connecting the dots to construct an argument

Logical claims (and thus their backing and grounds) fall into two basic categories, according to *Everything's An Argument*:

Definition Evaluation	A is/isn't B	because A fits/doesn't fit the criteria established for B
Cause/Effect Proposal	A likely does or can/does not or cannot cause B	because with/without A, B probably will/won't happen

Butte College, the University of Pittsburgh, Linfield College and—go figure!—Wikipedia, separately, offer clear explanations of well-established paths to link the components of argumentation (claim, evidence, analysis and commentary; intro, conclusion, OPV) logically, through reasoning.

Deductive reasoning: conclusion is certain
Deductive reasoning starts with the assertion of a general rule as an accepted claim and progresses logically from there to a guaranteed conclusion claim, the specific application of the rule. In deductive reasoning if the original assertions are valid, logical necessity requires that the conclusion must also be valid. Sound deductive reasoning can give absolutely certain conclusions. Forms of deductive reasoning are:

Syllogism is proof of definition/evaluation claims comprising a major premise, a minor premise, and a derived conclusion. Its three basic patterns are:

Categorical

If all A is B, And if all C is A, Then all C is B.	If all cats are animals, and all tabbies are cats, then all tabbies are animals.	If any impoverished adult receives welfare, and if welfare recipients are required to work, then impoverished adults are required to work.

Hypothetical

If A is true, Then B is true. So if A is found, Then B is present.	If I jump, I will land; I jumped, thus I landed.	If the use of chemical weapons against civilians occurs, the US promises to declare war. Chemical weapon use has been verified, so war must now be declared.

Disjunctive

Only A or B is true. So if A is true, Then B isn't.	Either it is sunny or cloudy, so if it is sunny, then it is not cloudy.	Cutting taxes—that is, reducing the government's "take" from individual's wealth—either boosts or it hinders growth of the economy. So if you say reduced taxes will help the economy, then no tax cuts hurt the economy

Scientific reasoning is a series of cause/effect claims tying observation to prediction to experimentation to repetition. Arguers observe a phenomenon, establish a hypothesis, perform experiments to confirm or reject their hypothesis, and repeat to ensure credibility of results. Basic standards for scientific reasoning are:

• Consistency—connecting steps are systematic, utilizing methods that justifiably prove alignment or cause/effect.
• Acceptability—appropriate norms, respected and expected by the audience, are applied.
• Repeatability—methods and results withstand refutation, alternative hypotheses, and confirmation experiments.

Quantitative reasoning proves claims describing existing relationships by means of numerical, symbolic or visual representations, often in the form of models or formulas that apply appropriate assumptions to determine a value, deduce consequences or make predictions. **Algebra** is quintessential quantitative reasoning—as I like to say, algebra is established means for determining the most information from the least amount of data.

Inductive reasoning: conclusion merely likely

Inductive reasoning argues proposal claims begins with observations that are specific but limited in scope and progresses to a generalized conclusion that is probable and plausible, but not certain, in light of accumulated evidence. It is the converse of deductive, which moves from the specific to the general. Much scientific research is carried out inductively: gathering evidence, seeking patterns in it, and forming a hypothesis or theory to explain what is seen. Conclusions reached by the inductive method are not logical necessities. Inductive arguments thus cannot be simply true or factual. Rather, they are cogent: that is, when reasoning and evidence seem comprehensive, relevant, and convincing, the conclusion is probably true. Nor are inductive arguments simply false; rather, they are not cogent. Academic theories (**Evolution, Trickle-Down Economics, Feminism**) are inductive. If you are reasoning inductively, for cogency use very precise language to narrate your claims, evidence and analysis but cautious and conditional language to describe results, like "the findings suggest…"

Qualitative reasoning argues claims by creating non-numerical descriptors of systems and their behavior, preserving important behavioral properties and classifying gradations (usually of intensity like High, Moderate, Low) or other distinctions as indicators to draw conclusions, without precise quantitative formulas or models. An example is **observing heavy rain and noting rising water level of a river, and then judging this sufficient cause/effect indication to take action against possible flooding without determining exact water level, rate of change in volume, or historical data**. This is used extensively by computer programmers trying to make "intelligent" programs that can run quickly and accurately without getting bogged down in computation to reach a more precise calculation.

Abductive reasoning argues proposal claims beginning with a known-to-be-incomplete set of observations or data and progresses— through inference—to the most likely, plausible explanation of them. Abductive reasoning is doing its best with the information at hand, so it is always reaches a "preliminary" or "interim" but never a "final" conclusion. Due diligence (honest consideration and weighing of evidence, adherence to established protocols and impartiality toward the subject) is the governing standard for arguing through abduction. A **medical diagnosis** is an application of abductive reasoning: given this set of symptoms, what is the diagnosis that would best explain most of them? Likewise, when jurors hear evidence in a criminal case, they must consider whether the prosecution or the defense has the best explanation to cover all the points of evidence. While there may be no certainty about their **verdict**, since there may exist additional evidence that was not admitted in the case, they make their best guess based on what they know at the time.

Specialized Argument Types

Gray, an ethicist, names more specific argument types that are challenging, but often perfectly matched to argue a particular proposition to a specific audience, given the assumptions, premises and/or context:

Argument from analogy is using definition/evaluation claims comparing two different entities to emphasize a relevant but "generalized" similarity between them, making it possible to see the forest despite the trees. For example, **both kicking and punching are often morally wrong because they are intended to hurt people and often succeed in doing so**. We could say that kicking and punching are "analogous" insofar as they are both similar in a certain way and are often morally wrong due to that similarity.

Not all analogies are reasonable. Some of them are false analogies. Many people even argue that "all analogies fail." Is the analogy drawn between kicking and punching a false analogy? Someone could argue that **kicking and punching is a false analogy because it's wrong to kick people in a boxing match, but it's not wrong to punch people in a boxing match**. However, outside the specific context of boxing, this objection lacks significance against the two acts' many similarities. Many people seem to assume arguments by analogy must prove that two things are *equivalent* to be true, but that misapprehends the purpose (analogy never compares equivalents). Analogy succeeds in revealing that disparate, divergent concepts, situations or observations share some important aspects worth noting. We see that kicking and punching are both often used to hurt something or someone. Whenever it's wrong to cause harm in a context, we now see that it's also likely wrong to punch or to kick.

When are analogies false? When they fail to establish enough *relevant* similarity to withstand challenge—that is when they are not cogent. For example, some people have suggested that **same-sex marriage is analogous to marriage between a human and a pet, because both are incompatible pairings of "parties" for the purpose of marriage**. However, a pet-human marriage is wrong because pets can't consent to marriage or understand its purpose. Two humans can both consent to marry and understand its purpose, so they are compatible "parties" for pairing.

Thought experiments create imagined situations to illustrate a generalization in action, translating the unfamiliar into something familiar. Thought experiments can be used to exemplify analogies, help us classify when a belief is intuitive (or counterintuitive), or

prove through division that a theory is inconsistent. Not all thought experiments prove what we think they do. An example of a failed thought experiment is **Aristotle thinking that a heavy object falls faster than a light one and then concluding that weight must determine velocity of a freefall**. Many people even today share this intuition, but dividing up an actual fall and classifying its constituent factors (gravity, resistance, momentum, torque, etc) reveals that freefall velocity is governed by less perceptible and intuitive aspects (distance from the surface, gravitational field) not weight.

Argument from absurdity or *reductio ad absurdum* is a means for testing warrants by providing rhetorical evidence for or against a belief or assertion—to apply *logos* to pathetic or ethical claims. This is done by assuming an assertion is sound (or belief is true) and proceeding strictly logically to show the absurd consequences that result from it. These absurd consequences are often actually counterexamples—states of affairs that would be impossible if the assertion was sound (or belief was true). For example, someone could claim to know that **nothing is truly morally wrong, but we might argue that "if that's true, then there's nothing morally wrong with torturing a small child, but we know there is something morally wrong with that."** The fact that we know that it's wrong to torture children is a counterexample to the belief that nothing is morally wrong. Narration and progression play a big role in such arguments, since they rely on the logic that using "true" premises to derive false conclusions means the reasoning connecting them must be invalid and/or unreliable—which relies on precision of language. Note that saying, "There is no universal morality" and then following up with "if this is true, yet no one agrees that it is moral to torture children, there must be *some* universal moral standard" captures the same argument in more abstract wording, which may be more appropriate for the context.

Indirect proof (also called negation) is traditionally used in logic and mathematics to show that reasoning is valid by assuming part of an assertion is invalid, then proceeding through comparison to show that this leads to a logical contradiction—the opposite progression of rhetorical evidence. For example, the following syllogism uses valid, categorical reasoning:

> **If Lassie is a dog, then she's a mammal.**
> **Lassie is a dog.**
> **Therefore, Lassie is a mammal.**

To use negation, we assume the conclusion is false to derive a contradiction and prove that the argument must then be valid:

If Lassie is a dog, then she's a mammal. **Lassie is a dog.**	valid syllogistic reasoning we want to test
But what if Lassie is *not* a mammal?	new, assumedly "invalid" negation we use to test it
Since we still accept the premise that dogs are mammals, then Lassie is not a dog.	valid reasoning we apply to new premise
This would mean that we accept that Lassie is a dog and we conclude that she is not a dog.	logical contradiction is the result
Thus, it's illogical for the original syllogism to be invalid.	rhetorical evidence "proves" test is passed

This pattern of argument succeeds in disproving a belief without technically being an objection to a belief—it gives an alternative hypothesis a "fighting chance" through reasoning. Indirect proof, done carefully, can draw attention to logical gaps that, if emphasized tactlessly, might offend or at least distance an audience. Contrast it with "calling out" someone on a statement: **Great leaders make mistakes. Oh, yeah? So, you think Hitler was a great leader then?**

Rogerian Argument: we can all get along
Writing Commons' "Rogerian Argument" and other sources cite the textbook *Rhetoric: Discovery and Change* saying, "users of [Rogerian Argument] deliberately avoid conventional persuasive structures and techniques because these devices tend to produce a sense of threat." This is not to say the argument has no structure, but rather the pattern of Rogerian reasoning is a narration "more directly the product of a particular writer, a particular topic, and a particular audience" (275). The danger of the arguer being exclusionary and/or stifling participation, is greatly reduced by this negotiative form of argument.
An academic argument taking Carl Rogers' approach would include emphases other approaches would not. These are:
- discussion of the problem/issue from multiple points of view using value-neutral language
- acknowledgment of opponents' points of view along with identification of selected facts or assertions the arguer might concede to opponents
- explanation of the arguer's point of view with identification of selected facts or assertions opponents might accept
- derived conclusion establishes a compromise position regarding the problem/issue, somewhere between the divergent points of view and integrating concessions from the arguer and opponents.

Reaching a mutually-agreed-upon solution, rather than proof, is the mission of Rogerians. Fair and balanced representation and language along with due diligence are the key standards that must be maintained for the argument to succeed. **Diplomatic agreements** are often Rogerian, or reached through Rogerian argument.

How is argument argued?

If we apply Toulmin Analysis, the only way to argue is by proving the points (backing and grounds) relevant to the type of argument to cover the warrants and reason of an overall thesis. The process for articulating your proof follows closely the core paragraph structure fundamental to expository writing and speaking, with the topic sentence specialized to match argument (as opposed to persuasion):

Topic Sentence	(what claim are you going to prove?)
Evidence	(whose expertise/ what data back up your claim?)
Analysis	(why does your evidence show you're right about this claim?—and not something else)
Commentary	(how does it matter that you proved this claim?—beyond your claim itself)

What is argumentative evidence?

Best as I can tell from my own readings of real writing, three types of information effectively encompass what and who backs up claims. Using the example claims from above, they are:

Cases/Examples demonstrate the validity of your claim

This is the most common type of evidence for an argument and includes facts, statistics, studies, anecdotes, observations, "documentation," analogous situations, etc. (Evidence is an example of where A has been true.)

> The instrument used to measure my height was calibrated. In fact, the Austerman Model 17-A yardstick is listed as "certified accurate to within .001 inch." This is acceptable accuracy for determining the height of a human body.

Expert Testimony corroborates your claim

This is usually a statement attributed to a credible source that jibes with a claim. (Evidence is documentation that authorities see A as true.)

> The person who measured my height was properly credentialed. While not a professional, the measurer Tad is, according to his AP Physics teacher, "the best, most detail-oriented TA I've ever had." Since as a TA he must help students measure, this makes him qualified enough to measure height.

The last type of evidence is logically tricky; it is when the argument is structured to be *self*-evident. Yikes! The Greeks called this rhetoric or rhetorical argument. I call it …(get ready for a *really* bad joke)…

Not-C reasoning implies that nothing else can be true BUT your claim.

This requires that you demonstrate that **no other options are likely valid except, by implication, YOUR argument**. (My logical explanation of why C is not B implies that *A* is B—and *not C*—must be true, instead.)

> Sure, I may make myself seem like a "giant" to students by looking down on them from great heights of authority and power. But, perceptions notwithstanding, standing perpendicular to the floor, I am actually a mere 5' 3". My stature is thus largely projected, even if disproportionate to the space I occupy (but I wouldn't underestimate me!).

Famous examples of rhetoric in this form are Lincoln's "Gettysburg Address" and former slave Sojourner Truth's "Ain't I A Woman?"

What is argumentative analysis?

Evidence **isn't** proof—although we often use the terms interchangeably. It needs reasoning by you to "prove" anything. Analysis is justifying **what your evidence means and how its meaning supports the validity of your claim**. Analysis is *by definition* a claim or series of claims about your evidence…that means reasoning has its own warrants and backing and grounds to cover. To justify it:

1. express what you're saying is true about your evidence as logically sound argument (not *pathos*, persuasion or opinion and not fallacy—more on which, later).
2. clarify significant warrants of what you're saying about your evidence (define the assumptions/conditions that apply).
3. include additional evidence necessary to validate your explanation (such as X, who is "Super Professor of the Year at Yale" according to FactCheck.org, argues…)

What is argumentative commentary?

Commentary is **not** your "comments" on the point (that's usually *pathos*; for example: "This is really terrible and it should stop!"). It is your answer to "*So what* if this evidence and analysis shows my claim is true?" It is the **conclusion** you draw from justifying your results. Commentary/Conclusion is logically NEVER:

1. a restatement of your claim, even in different words (because?...that's redundant)
2. a summary/recap of analysis or evidence (because…that's repetitive)
3. a new perspective or point to consider, completely outside of the claim being argued (because...that's digressive).

Formal commentary/conclusion is rarely done well outside of the hard sciences (where the default implication is "**more research needs to be done to further investigate the questions raised here**."). To draw implications is reasoning, too. It is done by answering questions for the audience:

- If your argument is valid, then what does it imply should happen next/be done? (**call to action**—"what you proved matters 'cuz something needs to be done about it; your suggestion about what to do is…because…")
- If your argument is valid, what *else* does it imply is happening as a result? (**shine a light**—"what you proved matters 'cuz this reveals *related* things that weren't apparent before; those important 'side effects' of your argument are…because…")
- If your argument is valid, what new/altered thing does it imply will happen as a result? (**change the world**—"what you proved matters 'cuz its validity changes everything/ something important that is related to it; the consequences of this are…because…")

> **The person who measured my height was properly credentialed. While not a professional, the measurer Tad is, according to his AP Physics teacher, "the best, most detail-oriented TA I've ever had." Since as a TA he must help students measure, this makes him qualified enough to measure height.** Having someone trained well measure my body height ensured that no user-error interfered with the 5' 3" results, even when the proper procedures were applied.

Note: This same implication would apply to the other points in the *I am 5'3"* argument. That is, proving the grounds of my thesis reduces the likelihood of errors or problems skewing my results.

Argumentative introductions and conclusions

The introduction—*like every other component of argumentation*—follows the structure of the core paragraph (so is not, as nonargumentative intros may be, background nor description nor a teaser of what's to come). For the traditional formal intro paragraph, the commentary, believe it or not, is expressed as the paper's **thesis statement**—and is placed at the end of the intro paragraph (yep…*that's* why you were taught to put your thesis there in school). So, the default formula for an argumentative intro is…

1. open with a general *arguable* claim about the origin or context of the subject/topic [NOT the claim about it you'll be proving in your paper!] (why is this "wide focus" subject *significant*?)
2. support *this* claim with brief (not teaser!) evidence and *limited* analysis (what testimony, case or not-C evidence—usually a pithy fact or provocative case—shows *my intended audience the stakes* for examining the subject?)
3. conclude with the essay's thesis statement as implications of the opening claim's argument (what will the rest of the paper *prove is true specifically/particularly*—"narrow focus"—about the subject?)

> **We often take specificity for granted in our daily lives. Yet, in some contexts, even the most mundane measure requires exactitude. Orthopedic medicine, for example, needs dimensions calibrated to the nearest 1/10 millimeter to ensure treatment success; workers in confined spaces rely on precision for safety. I myself am certifiably 5'3".**

The rest of your essay develops the argument of this conclusion (your **thesis**) by addressing its backing and grounds with specific evidence and analysis, leading to a formal conclusion.

Conclusion paragraph default formula is a mini-argument, too. No, *really*…

1. topic sentence is a "next step" *arguable* claim stating the implications of having proven the thesis, usually as a proposal (if the argument proven here is valid, then X should happen/be clear/be changed [call to action, shine a light, change the world] provided X is not something I covered in my argument of the thesis)
2. supports this claim with brief (not "rehash") evidence and *limited* analysis (what testimony, case or not-C evidence shows the connection between the argument and X is *at least plausible/ reasonable to my audience*?)
3. concludes with commentary…*on commentary*! (what will implementing X likely cause to happen that logically follows up this argument?)

> **Although I do not anticipate the need for orthopedics or a dangerous job assignment in the near future, knowing my height for certain has a number of benefits. Given my age, it gives me a benchmark for monitoring my bone health. As a mom, it keeps my teen daughter (who is slightly shorter) in check. And, should someone fitting my general description commit a crime, it gives me at least one distinguishing characteristic upon which to prove my innocence. You never know what might come up—it pays to be informed!**

Addressing counterarguments

We can never overlook that one warrant behind all claims: *This* claim is worth proving, because it hasn't already been accepted as fact. Another way of looking at this is to say, "There are reasonable other—not JUST opposing—points of view (I refer to these as OPVs) to this claim" or "This isn't black or white, right or wrong. There are gray areas in this claim that are worth exploring." Argumentation avoids perfunctory concessions like the simplistic, often hypothetical "although some may disagree with me." Any subject worth arguing formally has nuances and multiple paths of reasoning to prove. Conceding and addressing these are what makes an argument not just valid, but *compelling* to your audience.

> **The person who measured my height was properly credentialed. While not a professional, the measurer Tad is, according to his AP Physics teacher, "the best, most detail-oriented TA I've ever had." Since as a TA he must help students measure, this makes him qualified enough to measure height. Having someone trained well measure my body height ensured that no user-error interfered with the 5' 3" results, even when the proper procedures were applied.**

OPV paragraphs are also core paragraphs, and they also have a default formula:

topic sentence *arguable* OPV claim establishing complexity in your argument (A isn't *always/only* B or A doesn't *always* lead to B because…)
support from sufficient evidence and analysis (OPV is "tested" and proven at least plausible and significant)
commentary draws logical implications for overall argument (thesis is viable despite OPV because…)

Default formula for a formal argumentative essay/presentation

Element of Argument	Should
Intro—shows topic is significant	state claim(s) about origin/context of argument & back up with brief evidence and analysis & state thesis of essay as commentary; NOT be a list of your points; NOT be background info; NEVER OPEN WITH ESSAY'S THESIS
Thesis—specific proposition you'll prove valid through a logical test	include explicit claim and reason (if not self-evident) for overall argument of essay & be Toulmin analyzed by you for warrants, backing, grounds *B4* you draft
Topic Sentences for Each Body ¶--necessary **points** that prove thesis valid, even against OPV	state the specific point [claim and reason (if not self-evident)] the ¶ will prove in your argument including OPVs/gray areas of the thesis; cover ALL backing and grounds and ONLY backing and grounds; COMPREHENSIVELY OUTLINE HOW APPLYING EACH PART OF THE LOGICAL TEST (reason) PROVES YOUR THESIS claim
Pieces of Evidence for Each Body ¶—back up the point of each ¶	fit form of example/case, testimony or not-C logic & include citations crediting ALL information for which you are not a credible source; BE *ONLY and ALL* THE NECESSARY DATA YOU PRESENT TO COVER WARRANTS & GATHER FROM DOING EACH PART OF THE LOGICAL TEST (reason)
Analysis for Each Body ¶—evidence's meaning and connection to point of each ¶	establish credibility of sources & explain how your evidence supports the topic sentence claim; NOT implications of point; EXPLAIN HOW THE SPECIFIC DATA OFFERED PROVE ONE PART OF THE LOGICAL TEST (reason)
Commentary for Each Body ¶—- how ¶'s proof of point supports thesis	identify why the point and evidence in the ¶ help prove thesis; NOT be how you feel, restatement of ¶'s point/thesis or teaser transition; EXPLAIN HOW PROOF OF EACH PART OF THE LOGICAL TEST (reason) ADDS VALIDITY TO THESIS claim
Conclusion—implications of argument and how they are plausible	state implications of your argument & back them up with brief evidence, analysis and commentary; NOT be a restatement of your thesis or point already made; NOT prove new/ different point in argument; DRAWS PATH TO WHERE THE PROOF OF THESIS LEADS US NEXT

How do you communicate an argument effectively?

Researchers at Harvard who have examined how student writers produce quality academic arguments define effective articulation as "communicating in a precise and concise manner while expressing a cautious stance towards claims advanced" (Ucccelli, Dobbs and Scott 6). They point to four dimensions of writing that match the "academic register:"

1—lexical precision (eg, diverse, precise wording)
2—dense information packing (eg, nominalizations, complex syntax)
3—explicit discourse organization (eg, markers of logical transition)
4—academic stance (eg, markers of writer's attitude).

Linguistics researcher White identifies rhetorical choices for signaling stance—communicating the writer's "take" on ideas—in academic writing:

Acknowledge—attribute ideas, neutrally, to a source (Baker writes)
Assert—state as valid without qualifications (This is true)
Boost—interpolate logical markers of validity (naturally, inevitably)
Clarify—recast/restate information (that is,)
Concede—introduce opposition or nuance to a statement (While not always the case)
Concur—signal reader to accept a proposition (Of course, one wishes to)
Coordinate—link ideas together in a group (and, as well as)
Counter—oppose ideas with alternatives or alternates (however, yet, but)
Deny—negate as invalid without qualifications (This did not work)
Distance—attribute ideas, second-hand, to a source (Baker finds that)
Endorse—align with a source (Just as Baker writes)
Entertain—express conditional consideration (perhaps, must, may)
Evidentialize—offer data as "springboard" for statement (It seems from your reaction that)
Frame—sets up the type/form of argument (In this case study/statistical analysis/etc)
Hearsay—citing unnamed others (Some feel that)
Hedge—reduce the certainty of a statement (Often the result is)
Impersonalize—use passive construction or assign agency to abstract objects (It is likely, The evidence suggests)

Initiate—present ideas as independent inquiry (versus response)
Intensify—indicate advocacy directly (I would contend that)
Justify—connect ideas with logical markers to show consequence (thus, because, led to, created)
Postulate—present ideas as possibilities not as foregone conclusions (hypothesize)
Pronounce—back a view personally (I believe, I find)
Qualify—reduce the intensity of a statement (in some cases)
Respond—answer a question or prompt or react to a stimulus (I must question Baker's assertion)
Situate—provide background or context for ideas (As a teacher myself)
Subordinate—link one idea as a component of a second, controlling idea (This is a case of)
Superordinate—link one idea to others as the controlling idea (Altogether, these fall into the category of)

The authors of *Everything's An Argument* and *The Bedford Reader* identify two basic dimensions, style and organization, that arguers can mold to match their audience, content and purpose and thus make their argument easy to follow and evaluate, logically. All arguments have these dimensions; the precise formulation of ingredients is up to the arguer to concoct:

Style

Narration—manipulating your audience by
- sharing or holding back details to influence interpretation. To understand this, imagine an attorney carefully choosing what he/she will tell and *not* tell the jury;
- selecting specific word choice and diction that elicits sympathy or antipathy (*pathos*), confers authority (*ethos*) and/or objectively presents information (*logos*). To understand this, think about the "voice" or "tone" you use and how it communicates your attitude toward the subject and toward the audience.

Narration creates a pattern in words and information that controls interpretation to support the arguer's view. Examine your narration closely to avoid the risk of "losing" your audience and to identify opportunities to add influence to promote your audience's understanding.

Description—using words that capture specifics and/or literary devices that clarify specifics through representation to make a subject concrete and comprehensible for the audience, especially the use of sensory details to engage them in perceiving an experience vicariously—this is a device called imagery. Remember "show; don't tell?" That's description.
Description creates opportunities for the audience to recreate the subject in their own minds. Consider using it in place of, or at least as a supplement to, terms which may be abstract, unfamiliar or vague to the audience.

Exemplification—using words that restate, paraphrase or demonstrate a subject as it operates "in action," as opposed to making claims about it—in order for readers to "see" how it plays out.
Exemplification is the primary class of evidence. Consider using it in place of, or at least as a supplement to, "testimony" evidence where credible experts SAY what you're proving so that the audience can SEE it's true for themselves.

Organization

Progression—proceeding linearly from a beginning to a concluding step, implying that your chain of events is cohesive. Progression may be from start to finish in a process or, for instance, from "big picture" to "fine detail" view of a subject.
Progression is, conceptually, conducting a guided tour, walking the audience through your predetermined route from introduction (origin/context of argument) to conclusion (implications of argument). Always consider more than one path of progression to develop your argument before you draft; it's the only way to be sure you've selected the best—see connecting the dots above.

Division—separating out components of a subject in sequence to reveal to the audience, by the end, the complexity of it as a whole. Think: layers of an onion, parts of a body, paths of a flow chart, etc.
Division is like a dissection, showing all the constituent parts. Consider where deliberately breaking down a complex entity would make it easier to understand or how highlighting combined aspects would make clear to your audience what comprises an aggregate.

Classification—creating a matrix or grouping of alternate versions of a single subject to highlight different aspects in context.
Classification is like taking a census, showing diverse iterations of your category. Classifying a subject is very useful for OPVs and for backing warrants.

Comparison/Contrast—following a process to weigh alternatives to a subject against each another to showcase convergences and divergences, often in order to highlight strengths/weaknesses.
Comparison/Contrast is like narrating a T-chart or Venn diagram, linking components from each to show their relationships. It is the fundamental "big picture" strategy for synthesis and integration of information.

Reasoning Logically

Communicating argument effectively requires building coherence between ideas, and since all arguments interact with previous arguments, establishing cohesion with others' ideas. In general, academic arguments thus use one or more overall reasoning strategies to support their positions:

> Championing, questioning or challenging an existing theory, interpretation or position
> Offering affirming, qualifying or alternative additional data, perspectives or interpretations
> Applying existing methods, theories or interpretations to new scenarios or data
> Extending others' data, perspectives or interpretations with corroborating information
> Vetting or critiquing the quality, reliability or appropriateness of others' methods, sources or data
> Assembling and/or comparing previous findings to summarize the body of knowledge existing for a subject

They Say/I Say lays out specific signpost phrases that communicate the logic of reasoning and aid its cogency:

Making a claim clearly, logically, finding that, defining __ as, questioning, noting, exploring the issue of, asking, it follows, if…then, consequently, thus

Giving an example of after all, as illustrated by, for instance/example, specifically, a case in point, this can be seen when/in, defined as, exemplified as, one case of this is

Introducing testimony for/against according to, as argued by, lines up with/is challenged by what ___ says/ finds/ witnessed, in dis/agreement, corroborated/rebutted by, ___ calls into question/seconds this, in the view of, not the only one who sees it this way, advocating/questioning this is ___, supporting/refuting this, listen to, as ___ tells it

Elaborating/clarifying actually, by extension/extrapolation, in short, that is, in other words, to put it another way, to be frank, ultimately, in sum, this means to say, we understand from this

Comparing/contrasting along the same/different lines, in the same/a separate vein/way, likewise, similarly, although, by contrast, however, on the other hand, regardless (NOT *irregardless*!) nonetheless, nevertheless, whereas, while also, yet, pros/cons

Laying out cause/effect accordingly, as a result, consequently, hence, since, thus, therefore, so, then, followed by, leading to, coming/emerging from, the outcome of which is, progressing from

Adding on also, besides, furthermore, in addition, indeed, in fact, moreover, so too, at the same time, meanwhile

Critiquing however, yet, but, except, although, still, with this caveat/ condition/ qualification/ note

OPV admittedly, although ___ is true, still…, granted, naturally, logically, of course, perhaps, sometimes, yet, but also, let's not overlook, at the same time, from another perspective/view/side, looking deeper we see

---

Transitions within the core argumentative paragraph guide your audience through your argumentation. For example, if it's…

- a backing claim, add "to clarify" to it
- a grounds claim, add "as I will prove" to it
- case/example evidence, add "for example" to it
- expert testimony, add "experts tell us" to it
- analysis, add "this means…because" to it
- commentary, add "so if this is valid, then" to it

In fact, They Say/I Say show that reasoning can follow default patterns, according to the kind of justification you are making:

Introducing What "They say"

- A number of sociologists have recently suggested that X's work has several fundamental problems.
- It has become common today to dismiss X's contribution to the field of sociology.
- In their recent work, Y and Z have offered harsh critiques of Dr. X for _____.

Introducing "Standard Views"

- Americans today tend to believe that _____
- Conventional wisdom has it that _____
- Common sense seems to dictate that _____
- The standard way of thinking about topic X has it that _____
- It is often said that _____
- My whole life I have heard it said that _____
- You would think that _____
- Many people assumed that _____

Making What "They Say" Something You Say

- I've always believed that _____

- When I was a child, I used to think that _____

- Although I should know better by now, I cannot help thinking that _____

- At the same time that I believe_____, I also believe _____

Introducing Something Implied or Assumed

- Although none of them have ever said so directly, my teachers have often given me the impression that ⋯

- One implication of _____'s treatment of _____ is that that _____

- Although _____ does not say so directly, he/she/they apparently assumes that _____

- While they rarely admit as much, _____often take for granted that _____

Introducing An Ongoing Debate

- In discussion of _____, one controversial issue has been _____. One the one hand _____X_____ argues _____.
  On the other hand, _____X_____ contends _____. Others even maintain _____. My own view is
  _____

- When it comes to the topic of _____, most of us will readily agree that _____. Where this agreement usually
  ends, however, is on the question of _____. Whereas some are convinced that _____, others maintain that
  _____.

- In conclusion, then, as I suggested earlier, defenders of _____ can't have it both ways. Their assertion that _____ is
  contradicted by their claim that_____.

Capturing Authorial Action

- _____X_____ acknowledges that _____

- _____X_____ agrees that _____

- _____X_____ argues that _____

- _____X_____ believes that _____

- _____X_____ denies/does not deny that _____

- _____X_____ claims that _____

- _____X_____ complains that _____

- _____X_____ concedes that _____

- _____X_____ demonstrates that _____

- _____X_____ deplores the tendency to _____

- _____X_____ celebrates the fact that _____

- _____X_____ emphasizes that _____

- _____X_____ insists that _____

- _____X_____ observes that _____

- _____X_____ questions whether that _____

- _____X_____ refutes the claim that _____

- _____X_____ reminds us that _____

- _____X_____ reports that _____

- _____X_____ suggests that _____

- _____X_____ urges us to _____

Introducing Quotations

- _____X_____ states "_____."

- As the prominent philosopher _____X_____ puts it, "_____."

- According to _____X_____, "_____"
- In her book, _____, _____X_____ maintains that "_____."
- Writing in the journal _____, _____X_____ complains that "_____."
- In _____X's_____ view, "_____."
- _____X_____ disagrees when he writes "_____."
- _____X_____ complicates matters further when he writes, "_____."

Explaining Quotations

- Basically, _____X_____ is saying _____.
- In other words, _____X_____ believes _____.
- In making this comment, _____X_____ argues that _____.
- _____X_____ is insisting that _____.
- _____X's_____ point is that _____.
- The essence of _____X's_____ argument is that _____.

Disagreeing with Reasons

- _____X_____ is mistaken because she overlooks _____.
- _____X's_____ claim that _____ rest upon the questionable assumption that _____.
- I disagree with _____X's_____ view that _____ because, as recent research has shown, _____.
- _____X_____ contradicts herself/can't have it both ways. On the one hand, she argues _____ but on the other hand she also says _____.
- By focus on _____, _____X_____ overlooks the deeper problem of _____.
- _____X_____ claims _____, but anyone familiar with _____ has long known that _____.

Agreeing with Difference

- _____X_____ surely is right about _____ because, as she may not be aware, recent studies have shown that _____.
- _____X's_____ theory of _____ is extremely useful because it sheds insight on the difficult problem of _____.
- If _____Group X_____ is right that _____, then there needs to be a reassessment of the popular assumption that _____.

Agreeing and Disagreeing Simultaneously

- Although_ _____X_____ seems right up to a point, the overall conclusion _____ cannot be blindly accepted.
- Although there is much to disagree with when _____ says _____, there is merit in his final conclusion that _____.
- Though I may concede_____ I still insist on _____.
- Whereas _____X_____ provides ample evidence that _____, _____Y_____ and _____Z's_____ research on _____ and _____ convinces me that _____ instead.
- _____ is right that _____, but she seems on more dubious ground when she claims that_____.
- While _____ is probably wrong when she claims that _____, she is right that _____.
- While it is difficult to support _____X's_____ position that _____, _____Y's_____ argument about _____ and _____Z's_____ research is equally persuasive.

Signaling who is saying what

- _____X_____ argues _____
- According to both _____X_____ and _____Y_____, _____.
- Politicians who_____, _____X_____ argues, should _____.
- But _____ are real and, arguably, the most significant factor in _____.
- But _____X_____ is wrong that _____.
- However, it is simply not true that _____.
- Indeed, it is highly likely that _____.
- But the view that _____ does not fit all of the facts.
- _____X_____ is right that _____
- _____X_____ is wrong that _____
- _____X_____ is both right and wrong that _____
- Yet a sober analysis of the matter reveals _____
- Nevertheless, new research shows _____
- Anyone familiar with _____ should see that _____

Entertaining objections

- Yet some _____X_____ may challenge the view that _____. After all, many believe _____. Indeed, my own argument is that _____ seems to ignore _____ and _____.

Naming your naysayers

- Here many _____Xs_____ would probably object that _____.
- But _____Xs_____ would certainly take issue with the argument that _____.
- _____Xs_____, of course, may want to dispute the claim_____,
- Although not all _____Xs_____ think alike, some will probably dispute the claim _____.
- _____Xs_____ are so diverse in their views that it is hard to generalize about them, but some are likely to object on the grounds that _____.

Making concessions while still standing your ground

- Proponents of X are right to argue that _____. But they exaggerate when they claim that _____.
- While it is true that _____, it does not necessarily follow that _____.
- On the one hand, I agree with _____X_____ that. But on the other hand, I still insist that _____.

Indicating who cares

- _____Xs_____ used to think _____. But recently/within the past few decades _____ suggest that _____.
- What this new research does, then, is correct the mistaken impression, held by many earlier researchers that _____.
- These findings challenge the work of earlier researchers who tended to assume that _____.
- Recent studies like these shed new light on _____, which previous studies had not addressed.
- Researchers have long assumed that _____. For instance, one eminent scholar of _____, assumed _____. Another argued _____. Ultimately, when it came to _____, the basic assumption was _____.
- If _____Xs_____ stopped to think about it, many of them might simply assume that the most successful _____Ys_____ are _____. However, new research shows _____.
- At first glance _____Xs_____ appear to _____. On closer inspection _____.

Establishing why your claims matter

- _____ matters/ is important because _____.

- Although X may seem trivial, it is in fact crucial in terms of today's concern over _____.

- Ultimately, what is at stake here is _____.

- These findings have important consequences for the broader domain of _____.

- In discussing _____, it is in fact addressing the larger matter of _____.

- These conclusions/This discovery will have significant applications in _____ as well as in _____.

- Although X may seem of concern to only a small group of _____, it should in fact concern anyone who cares about _____.

Rhetorical Moves

At George Washington University, Professor Riedner adapts Graff and Birkenstein's templates to "get students to recognize moves of academic writing and to make explicit how they're working with the writing of other authors" as follows:

Justifying Your Approach

I approach _____ material/object of study in _____ specific way to support and expand points about the significance of _____. My approach allows us to see _____ evidence, prompting further questions about _____ and drawing attention to _____. As a result, my work expands/challenges/argues against _____ view of evidence, and allows us to see _____ [that may have not been considered or understood before].

Complication

This explanation gets us only so far as _____ to explain _____. ____ evidence doesn't fully fit this explanation in ____ way. Consequently, ____ reformulation of the argument is justified.

____ I have just described is not enough to explain _____. To adequately understand it, we'll have to consider _____ as well. **Or,** The case isn't so simple, rather _____ is more accurate/comprehensive.

Questioning/Clarifying Key Terms

_____ key terms in my argument ___ need to be clarified/questioned because ____ issues exist with them . Having developed these terms, I can now reformulate my argument as _____ and retest it against _____evidence analyzed with the new understanding of the terms.

Considering Argument As Part Of Something Larger

While it may appear that _____ facts/issues are insignificant, when understood as_____, they show _____ significance.

Reformulate Argument By Refusing To Go Along With The Conventional Wisdom

Most commentators on _____ tend toward _____ understanding/view. If we consider it in _____ terms instead, it becomes possible to generate such new insights as _____.

Self-Clarification

Although it might appear that I am saying _____, I really mean _____. **Or,** Said another way, _____.

Definition/Redefinition

Although ____ term is usually understood in a simple, ____ way, in the context of my work it means instead _____ complex, nuanced, specific, specialized idea. This more subtle meaning is important because _____.

Introducing And Exiting A Quote

According to X scholar/authority, _____ [paraphrase]. **Or**, In "___[title]___" X writes: _____ [quote].
What ____ [quote] means in the context of this paper is _____.**Or**, If X is right about _____, then _____ [implications, insight YOU offer].

Revealing An Implication

These details add up to an assumption that _____. **Or,** Although X doesn't say so explicitly, she appears to imply that _____.

Revealing A Questionable Assumption

X's claim that _____ rests on the questionable assumption that _____.

Contextualizing A Specific Insight

____ is best understood as part of _____ . **Or,** _____ is specific example of ____ pattern ____. By seeing it in context, we discover _____.

Specific Insights Confirm A More General Claim

So, as we can see from ____specifics/nuances of _____, generally tend to _____.

Conclusion

At stake in this argument, finally, is _____. **Or,** While most scholars have argued _____, my work reveals _____. This new insight is significant because _____.

The University of California Santa Cruz lays out the following moves as components of **an introduction** to your own research or insight:
- An overview of the subject, issue or theory under consideration and/or objectives of the review of previous research
- Division of research works under review into categories (e.g. those in support of a particular position, those against, and those offering alternative theses entirely)
- Explanation of how each work is similar to <u>and</u> how it varies from the others
- Resolve conflicts amongst seemingly contradictory previous studies
- Conclusions as to which pieces are best in their argument, are most convincing of their opinions and make the greatest contribution to the understanding and development of their area of research
- Identification of new ways to interpret and/or shed light on any gaps in previous research (YOUR RESEARCH OBJECTIVE).

In addition to devices listed in the literary devices glossary, Speak Like A Pro, a company that prepares public speakers, lists these:
Amplification:
A figure of speech that repeats a word or expression while adding more detail to it, in order to emphasize something.
> **"I know I have but the body of a weak and feeble woman; but I have the heart of a king, and of a king of England, too"** - Queen Elizabeth I

Anastrophe
A departure from normal word order for the sake of emphasis
> "**Four score and seven years ago**" - Abraham Lincoln
> "**This much we pledge, and more**" - JF Kennedy

Distinctio **(Or Glossing):**
An elaboration on a particular meaning of a word in order to prevent any misunderstanding or ambiguity:
> "**In modern times (and here I am referring to the post-World War Two era) ...**"
> "**The task could be described as difficult, if by difficult we mean that it will entail hardship**"
> "**The operation will need to be completed quickly; that is, within three months**"

Metabasis:
A brief statement of what has been said and what will follow; a kind of transitional summary:
> "**So far I have concentrated only on the costs of the proposal. I now want to turn to the benefits**"
> "**So much for the achievements of last year. Let's look at the objectives for this one**"

*Scesis Onomaton***:**
A figure of speech which emphasises something by expressing it in a string of generally synonymous phrases or statements. While it should be used carefully, this deliberate and obvious restatement can be quite effective.
> "**We succeeded, we were victorious, we accomplished the feat!**"
> "**A sinful nation, a people laden with iniquity, a seed of evildoers, children that deal corruptly**" --Isaiah 1:4
> "**But there is one thing these glassy-eyed idealists forget: such a scheme would be extremely costly, horrendously expensive, and require a ton of money**"
> "**That is heart-breaking, it is wrong, and no one should be treated that way in the United States of America**" - Barack Obama

***Sententia*:**
A figure of argument in which a wise, witty, or well-known saying is used to sum up the preceding material.

>**"So, I'm happy tonight. I'm not worried about anything. I'm not fearing any man. 'Mine eyes have seen the glory of the coming of the Lord' "** -- Martin Luther King, Jr

A checklist for planning and evaluating your specific style and organization:

Language Structure	How are your sentences mostly constructed—long/short, passive/active, etc? What does the pattern accomplish? Do sentences often contain clauses; do they change according to what they are about? Is there variety for variety's sake, or do they match the purpose and audience? Look for digressions or interruptions to the ordering of your writing: Is word- and sentence order mostly standard, a mix of patterns, or different by topic? Does it disrupt the reading or enhance it? Are your paragraphs mostly short, highly variable, or usually enormous blocks? Are chapters/ sections intensive, prolonged, variable, etc? What patterns do you use to sequence of section, paragraphs and sentences? Do they match the purpose, or are they formulaic?
Diction	Are most of your words choices general use, standard or technical? How much skill does the reader need to put the ideas together? Are you consistent in word choice, complexity and level of language? Does the amount and sequencing of words "feel" tight and efficient, or elaborate and long-winded for the audience? Does it match the purpose?
Pacing	Is your style of presenting info heavily descriptive or only sparsely so? Do you allot time/space in your writing evenly to different components, or are they out of balance? Are there leaps between topics or do you include step-by-step, connect-the-dots transitions? Is the writing's overall "speed" too fast, too slow or just right for the audience and purpose?
Chronology	How do you organize the chronology of events/ ideas—like a flow chart, a bulleted list, in real-time, layers of a whole, parts of a system—a mix? Is your verb tense consistent overall or does it change for different situations/subjects? How would you characterize your work's overall "rhythm…" steady, variable, etc?
Manipulation	Are you using unconventional techniques, mixing styles and/or genres, using an odd layout on the page, breaking grammar rules, applying unusual or unfamiliar approaches for the audience and purpose?
Distance/ Appeals	Does your wording seem natural, factitious, vague or precise for the subjects it is used to talk about? Does your wording assume a sympathetic audience, or a skeptical one? Are pathetic appeals used appropriately? Do you include hedges/concessions, acknowledgements, qualifiers and other clarifying transitions to frame your evidence?

Adapted from Erik Christensen's *Style Checklist*.

Tone is the third, often unrecognized dimension of argument. Rosenwasser and Stephen in *Writing Analytically* advise college writers to

>Resist what is known as "freshman omniscience"—recognizable sweeping claims and a grandiose tone…"since the beginning of time poets have been…"(244). Academic writing *ethos* is characterized by: nonadversarial [yet critical/skeptical not just approving] tone; collaborative and collegial treatment of audience and approach to subject; careful qualifiers [hedges and concessions] (not overstatements); relative impersonality—focus is on subject, not writer [or writ*ing*] (10).

Conventions/Standards for Argumentation

Molding tone, style and organization, selecting evidence, articulating reasoning, constructing argument—all these steps of argumentation have "rules of engagement" enforced as standards or conventions on writers and speakers, researchers and analysts and critics and opponents. These are designed to be the playbook that everyone agrees to before making, judging or applying an argument.

Credibility—yours and your sources'
The two overarching concepts governing the practice of argumentation, **validity** (truth/accuracy) and **credibility** (trustworthiness), are not synonymous or mutually dependent—a claim can be valid but not credible; a claim can be credible and not valid. That is, someone untrustworthy could say something that is true, and someone trustworthy can say something that isn't. Validity must be established through reasoning about evidence and avoidance of fallacy—if a claim is shown to be logically sound, it is called *valid*. Establishing credibility is much less straightforward, because it involves a degree of *pathos* and thus is subjective by nature. It is necessary for logical arguments, however, because *ethos* (aligning to the standards established by the authorities) is a dimension of most logical appeals. In fact, establishing credibility may just be the perfect triangle formed by the three appeals.

A widely-used mnemonic for evaluating credibility is:

Consistency	how well the source aligns with the majority, mainstream, accepted or other measure of the body of knowledge about the subject

R eputation	track record, status in field of the source
A bility to Perceive	direct, indirect, second-hand, research, inferential or access used to "know" all, some, a particular perspective or other view of the subject
V ested Interest	any reasonable reward or punishment the source is likely to face regarding the subject and context
E xpertise	specialized knowledge/skill/experience/credential of the source regarding the subject
N eutrality	level of impartiality/bias of the source toward the subject and context

With data about these six dimensions, you establish sources' credibility as part of analysis of evidence, addressing these aspects of a source explicitly where they are not already known or accepted by your audience (the warrant of any expert testimony). As an arguer yourself, you must assess your own credibility as a source—would you pass the CRAVEN test for data *you* want to offer? If not, the conventions of argument require you to seek out and present data from others who do pass this test.

CREDITING OTHERS as sources of information is priority one for arguments in the academic and professional worlds—so much so that there are regulations and even criminal codes to enforce it. There are citation formats for identifying the source of information within your text (in-text, foot- or end-notes) and at its end (works cited/bibliography) to ensure that your audience can reproduce your findings (MLA for Humanities; APA for Sciences; etc). Underlying citation are standards and conventions for accurately presenting someone else's information in your argument—which you can think of as a test of your own neutrality.

When you decide you need to use someone else's words in your writing, either

> use the exact words as a quotation, because this is the clearest, most efficient or most honest way your audience will get the specific info he/she needs to understand you. You may strategically truncate a quotation to capture just the part that's relevant to your argument like:
> **One college writing instructor said, "Implications are never [three things]" (Baker).**

OR

> TRANSLATE the passage as paraphrase in words that more clearly, effectively or efficiently communicate its accurate meaning for your audience and what you are using it for, capturing all its relevant details but converting its specific word choice to your own. Example:
> **College composition curriculum identifies three illogical paths students' conclusions often take (Baker).**

Paraphrasing is NOT just "changing the original wording" (that's bad quoting!).

Even summary is a paraphrase (albeit a general or broad one). Thus, it, too, must have a citation to credit its source. Example:
> **Toulmin Analysis is a structure for argumentative writing, according to Baker.**

You can't use someone's actual words/material without quoting and citing; you can't restate someone's words/ideas without accurately paraphrasing and citing. Leaving out the citation is plagiarism—a major violation of the standards for argument.

Elder and Paul explain that there are standards in communication that audiences expect all arguers to meet. Meeting or exceeding these benchmarks help build up *your* credibility:

FAIRNESS: *Do you have a vested interest in this issue? Are you sympathetically representing the viewpoints of others?* Human think is often biased in the direction of the thinker - in what are the perceived interests of the thinker. Humans do not naturally consider the rights and needs of others on the same plane with their own rights and needs. We therefore must actively work to make sure we are applying the intellectual standard of fairness to our thinking. Since we naturally see ourselves as fair even when we are unfair, this can be very difficult. A commitment to fairmindedness is a starting place.

CLARITY: *Could you elaborate further on that point? Could you express that point in another way? Could you give me an illustration? Could you give me an example?* Clarity is the gateway communication standard. If a statement is unclear, we cannot determine whether it is accurate or relevant. In fact, we cannot tell anything about it because we don't yet know what it is saying. For example, the question, "What can be done about the education system in America?" is unclear. In order to address the question adequately, we would need to have a clearer understanding of what the person asking the question is considering the "problem" to be. A clearer question might be "What can educators do to ensure that students learn the skills and abilities which help them function successfully on the job and in their daily decision-making?"

ACCURACY: *Is what you claim really true? How could we check that? How could we find out if that is true?* A statement can be clear but not accurate, as in "Most dogs are over 300 pounds in weight."

PRECISION: *Could you give more details? Could you be more specific?* A statement can be both clear and accurate, but not precise, as in "Jack is overweight." (We don't know how overweight Jack is, one pound or 500 pounds.)

RELEVANCE: *How is that connected to the question? How does that bear on the issue?* A statement can be clear, accurate, and precise, but not relevant to the question at issue. For example, students often think that the amount of effort they put into a course should be used in raising their grade in a course. Often, however, the "effort" does not measure the quality of student learning; and when this is so, effort is irrelevant to their appropriate grade.

DEPTH: *How does your answer address the complexities in the question? How are you taking into account the problems in the question? Is that dealing with the most significant factors?* A statement can be clear, accurate, precise, and relevant, but superficial (that is, lack depth). For example, the statement, "Just say No!" which is often used to discourage children and teens from using drugs, is clear, accurate, precise, and relevant. Nevertheless, it lacks depth because it treats an extremely complex issue, the pervasive problem of drug use among young people, superficially. It fails to deal with the complexities of the issue.

University argumentative writing standards, including the University of Washington's, often challenge students to demonstrate a degree of sophistication and depth in argument. Dimensions such as the following are thus traits of much college-level argument:
> Complex line of inquiry (fully developed proof, integrating OPVs/ qualifiers, multiple sources/types of evidence, analysis)
> Significant contribution to a body of knowledge (not just discussion, summary, personal response or paraphrase of reading/research; a new argument worth consideration *usually in a specific discipline, in its mode of inquiry*)

Tips for Improving Argumentative Writing

Before you begin any argument, it helps immensely to clarify the specifications of your task. I suggest students do this by establishing full **operational definitions**. Academics and professionals in all fields value being explicit and precise about how a term is being USED for the task at hand. **OD**'ing—operationally defining—is key to seeing the problem clearly. How do you OD?

First take the time to examine the task in minute detail—like a forensics analyst doing an **inquiry**. What you know you don't know, investigate. Ask the questions of your colleagues, supervisor, client, etc that double-check what is MEANT by EVERY term *explicit*—said outright—AND *implicit*—assumed or tacit—in the task. (I think of this step as "testing" your understanding—so the steps are OD-IT):

> Operationally Define—peruse the task for what terms you know, you think you know and you know you don't know;
>> Investigate terms you don't know;
>>> Test to double-check your understanding of every term in the task
>>>> *After you OD-IT you're ready to DO IT.*

Rosenwasser and Stephen, in *Writing Analytically*, delineate clear processes for the thinking stages prior to drafting, which I have adapted:

To prepare yourself to analyze, read/review your data/source follow these steps--
1. Suspend Judgment [focus on noticing, not formulating a response]
2. Define Parts and How They Relate [to each other and to the subject as a whole]
3. Make Explicit the Implicit
4. Look for Patterns of Repetition, Strands, Binaries, Contrasts and Anomalies
5. Reformulate Your Interpretation [as needed] (16).

In planning your writing, remember these Rules of Thumb--
1. [OD—operationally define] the Task [and stay on track the definitions]
2. Suspect Your First Response [to data/sources]
3. Reduce the Scope of Your Response [to a manageable, precise approach to take]
4. Begin with Questions, Not Answers
5. Expect to Become [More] Interested [nuances and possibilities will reveal themselves, especially as you work to describe your data]
6. Write ALL OF THE TIME about What You Are Studying [so you will constantly be preparing for analysis] (72-4).

General strategies for improving cogency while drafting--
> Problematize for complexity rather than generalize for simplicity
> Synthesize for richness/depth of common ground
> Collapse binaries, address anomalies, pinpoint gaps in yours and texts' arguments
> Draw out what is significant or new about any comparison being made

Use one side/view/definition/component as the "grounds" to illuminate another, instead of just contrast or integration
Imagine different views/sides/components "speaking back" to one another—arbitrate the discussion as your analysis
Find "difference in similarity" or "similarity despite difference" rather than segregating black from white
Test key operating definitions—yours and texts'—against appropriate evidence; report your findings as analysis
Pre-view a range of plausible interpretations, decide if all or some or one is worth testing out in your argument
Use action verbs and specific nouns in your wording of claims for clarity and manageability
Ensure every sentence performs a function in your argument for cohesion, like these:

State claim/point	Cite data/quote	Draw implications/conclusion
Restrict/expand	Relate/differentiate	Gloss/note/acknowledge
Transition/conjunction/link	Contextualize/situate	Complicate/explicate
Formulate/re-formulate	Coordinate/subordinate	Frame evidence/reinforce structure
Apply/reason/negotiate with	Detail/present/dissect	Establish/refute credibility/premise
Qualify/modify/justify	Question/correct/update	Illustrate/eliminate
Emphasize/confirm	Validate/corroborate	Reveal tension/ambiguity
Attribute/reference	Refine/elaborate	Rank/place in hierarchy/sequence
Paraphrase/re-present	Highlight stakes/assumptions	Define/clarify/explain

Control the focus of what you present, be the "director" of your presentation, for agency. Techniques for this--

panning: pivoting around one stable axis to give a big picture, the scene from a distance, not just isolated parts; can be used as *positioning* to set up subsequent examination of constituent parts

tracking: following the action to connect selected instances as a natural sequence rather than as static parts of a scene; can be used as *patterning* to set up cause/effect, coherence and/or continuity

zooming: close detailing giving the "insider's" or "intimate" view of an instance; can be used as *centering* to set up excavation of layers, dimensions, strands, etc. (112-4)

mise en scene: every component that makes the final cut must be necessary to the overall purpose (a gun in act one must be fired by act three) and nothing necessary may be left out; this sets up comprehensiveness in your argument and fairness in re-presenting others' ideas

Booth, Colomb and Williams in *The Craft of Research* lay out these principles for revising drafts to improve clarity and effectiveness:

Name—short, specific, concrete—**the central subject in each sentence**; your topic will operate like a character whose story a reader easily follows (253).

Express crucial actions in verbs, *not* **abstract nouns**; your character will act out your ideas (255).

Repeat key terms to link ideas; transitions and connecting words around the terms will cue your reader (263).

Ex: Environmental degradation is the most significant problem of our time because it causes us irreparable harm. *versus* As we destroy our environment, we also destroy ourselves.

Sequence ideas within sentences and within paragraphs from **known-> new, simple-> complex, short statements-> long phrases;** your reader will feel the ideas "build" (261).

Ex: Glaciers are melting away, fires are burning unchecked, rivers are drying up—the earth is hurting. versus The earth is hurting—glaciers are melting away, fires are burning unchecked, rivers are drying up.

These authors also lay out clear, efficient steps for editing to apply those principles:

1. Take time before re-reading your drafts to recall the "character" and "acts" you want to show to your reader. Keep these in mind as you edit.

2. Underline the first half of every clause (phrase) in every sentence.

3. Assess: are the underlined subjects concrete or abstract? are the verbs specific or general (*have, is*)? do the subjects and verbs match the story you want to tell?

4. Assess: are the first 6-7 words of each sentence familiar, simple and/or in short statements or new, complex or in intricate phrases?

5. Draft changes, then read the edited piece aloud to evaluate issues of flow, readability, unnecessary or missing transitions, descriptors and details.

6. Repeat steps until you have finalized changes; ONLY then do you proof, that is, check grammar, conventions, spelling.

Fallacies to Avoid

The following are actual examples of fallacious—that is, implausible—arguments, many from ACTUAL student papers (marked *).
The warrants are what give them away. The titles are unofficial—if you would like to delve more deeply into the official names and more complex fallacies and articulation of logic I suggest this excellent guide:
Keis, Daniel. *Using Logic in Composition*. Department of English. College of DuPage. 30 Sept 2012. Web.

FAULTY CAUSE AND EFFECT
> Wearing huge pants makes you fat.

…obvious, huh? So: "Having mean/unreasonable/boring teachers makes you learn less" *is* logical?

I AM THE WORLD*
> I've never heard of Dick Cheney, so he's obviously not that famous.

TAUTOLOGICAL TAUTOLOGY* (Tautology is illogically arguing something is true by defining it so that it fits what you are saying is true about it.)
> Speeding is dangerous because it can cause accidents. Too much government help hurts.

DISMISSING ESTABLISHED SCIENCE/FACTS*
> Who is the Supreme Court to say what's constitutional or not?

FALSE ANALOGY*
> The death penalty is premeditated murder. Executioners should be prosecuted under the same laws as the criminals they execute.

APPLES ≠ ORANGES*
> The District says it sets high standards; so why, when we meet them, do we get a C instead of an A?

PARTS = THE WHOLE*
> There are many American animal rights activists, but still Americans buy fur and leather products. Therefore, Americans are hypocrites.

BIZARRE DEFINITION*
> People who break the marijuana laws aren't criminals.

LOGICAL DISCONNECT*
> He isn't a very good teacher because he isn't funny.

NARROW (UNREASONABLE) PERSPECTIVE*
> The intermediate license is the worst thing that could happen to a teenager.

PAINFUL SIMPLIFICATION*
> If you really want something bad enough, you'll get it. All you have to do is keep trying.

MISUSING STATISTICS/FACTS*
> Cars kill more people than guns every year. Therefore cars should be illegal, not guns.

RHETORICAL QUESTIONS ARE AN ANSWER*
> How can anyone stand to live this way? Can't we all just get along?

IGNORING LOGICAL CONSEQUENCES*
> If we put all the money we spend on prisons into hiring police officers, we wouldn't have a problem with crime.

QUOTES = WISDOM*
> "Treat others as you wish to be treated" is right. We should make the government pay US a tax on ITS income!!

CIRCULAR REASONING*
> People don't obey speed limits because the limits are dumb. It's dumb to have laws that no one follows.

INCOMPLETENESS = DEFECT*
> The theory that the Media causes eating disorders is wrong, since some people who read magazines and watch tv don't have any issues with their weight.

FOLLOWING BAD ADVICE*

Eminem didn't get his high school diploma, and he is a millionaire. So, I should be able to succeed without one, too.

FALLING DOWN (MISSING) LOGICAL STEPS*

The US government censors art. That's why there isn't anything interesting on tv or the radio.

BAD PATTERN RECOGNITION*

Thousands of lives have been saved by seatbelt use. In one incident, a man was burned to death while belted in his car. Cases like this show that seatbelts should not be required.

MISSING THE BIG PICTURE*

The ultimate impact of the 2000 Election confusion is that fewer people will stay up on election night to find out the results of national elections.

WON'T ASK DIRECTIONS WHEN LOST*

We've spent hundreds of millions of dollars developing a missile defense system that doesn't work, but we can't terminate the project. Stopping now will mean wasting all that money.

IGNORING OCCAM'S RAZOR

(OCCAM'S RAZOR: THE SIMPLEST, LOGICAL SOLUTION IS LIKELY THE CORRECT ONE.)
Just because most of the 9/11 Hijackers were Saudis and they all had personal contact with Saudis under investigation for terrorism doesn't mean the US should be worried about future Saudi links to terrorism.

OVERAPPLICATION OF OCCAM'S RAZOR*

The 9/11 Hijackers obviously loved to kill people. That was their primary motivation.

AD HOC HYPOTHESIS (THE REVERSE OF OCCAM'S RAZOR, ALSO KNOWN AS "A STRETCH")

There's a good reason for that scratch on the car's bumper….it…uh…probably had bad paint there for years (not, say, that I got into an accident).

TOO NARROW A CAUSE FOR AN EFFECT*

World War I and II came about because Europeans had been fighting for centuries.

STRAW MAN

(A STRAW MAN ARGUMENT: CREATION OF A SLANTED REPRESENTATION OF ONE POINT OF VIEW WHICH CAN BE EASILY ATTACKED INSTEAD OF ARGUING AGAINST A FAIR REPRESENTATION.)
Kids today don't care about anything other than themselves, is it any wonder that they don't turn out to vote?

MYSTERY "THEY"*

They want us to believe what they tell us is true, but we shouldn't trust them. We should only trust ourselves.

SLIPPERY SLOPE (TIPPING POINT IS VERY EARLY)*

If one student is allowed to be tardy, soon every student will be skipping class. In the end, no one will even come to school at all.

STICKY SLOPE (OPPOSITE OF SLIPPERY SLOPE—TIPPING POINT IS EXTREMELY LATE)*

Fast food can't be that bad; it hasn't killed me yet.

Adapted from *English131 Orientation Manual* "You are wrong because…" 3-26.

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