Anthony Weston

A Rulebook for Arguments

Third Edition

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I

Composing a Short Argument

Some General Rules

Chapter I offers some general rules for composing short arguments. Chapters II through VI discuss specific *kinds* of short arguments.

I. Distinguish premises and conclusion

The first step in making an argument is to ask, what are you trying to prove? What is your conclusion? Remember that the conclusion is the statement for which you are giving reasons. The statements that give your reasons are called *premises*.

Consider this quip of Winston Churchill's:

> Be an optimist. There is not much use being anything else.

This is an argument because Churchill is giving a *reason* to be an optimist: His premise is that "there is not much use being anything else."

Churchill's premise and conclusion are obvious enough, but the conclusions of some arguments may not be obvious until they are pointed out. Sherlock Holmes has to explain one of his key conclusions in "The Adventure of Silver Blaze":

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> A dog was kept in the stalls, and yet, though someone had been
> in and fetched out a horse, the dog had not barked. Obviously the
> visitor was someone whom the dog knew well. . . .

Holmes has two premises. One is explicit: The dog did not bark
at the visitor. The other is a general fact he assumes we know
about dogs: Dogs bark at strangers. Together these premises
imply that the visitor was not a stranger.

When you are using arguments as a means of *inquiry*, as
described in the Introduction, you may sometimes start with no
more than the conclusion you wish to defend. State it clearly,
first of all. If you want to take Churchill at his word and argue
that we should indeed be optimists, say so explicitly. Then
ask yourself what reasons you have for drawing that conclu-
sion. What reasons can you give to prove that we should be
optimists?

You could appeal to Churchill's authority: If Churchill says
we should be optimists, who are you and I to quibble? This
appeal will not get you very far, however, since probably an
equal number of famous people have recommended pessimism.
You need to think about it on your own. Again, what is *your*
reason for thinking that we should be optimists?

Maybe your idea is that being an optimist gives you more
energy to work for success, whereas pessimists feel defeated in
advance and never even try. Thus you have one main reason:
Optimists are more likely to succeed, to achieve their goals.
(Maybe this is what Churchill meant as well.) If this is your
reason, say so explicitly.

Once you have finished this book, you will have a ready list
of many of the different forms that arguments can take. Use
them to develop your premises. To defend a generalization, for
instance, check Chapter II. It will remind you that you need to
give a series of examples as premises, and it will tell you what
sorts of examples to look for. If your conclusion requires a
deductive argument like those explained in Chapter VI, the
rules discussed in that chapter will tell you what types of prem-

ises you need. You may have to try several different arguments before you find one that works well.

2. Present your ideas in a natural order

Short arguments are usually written in one or two paragraphs. Put the conclusion first, followed by your reasons, or set out your premises first and draw the conclusion at the end. In any case, set out your ideas in an order that unfolds your line of thought most naturally for the reader. Consider this short argument by Bertrand Russell:

> The evils of the world are due to moral defects quite as much as to lack of intelligence. But the human race has not hitherto discovered any method of eradicating moral defects. . . . Intelligence, on the contrary, is easily improved by methods known to every competent educator. Therefore, until some method of teaching virtue has been discovered, progress will have to be sought by improvement of intelligence rather than of morals.*

Each claim in this passage leads naturally to the next. Russell begins by pointing out the two sources of evil in the world: "moral defects," as he puts it, and lack of intelligence. He then claims that we do not know how to correct "moral defects," but that we do know how to correct lack of intelligence. Therefore—notice that the word "therefore" clearly marks his conclusion—progress will have to come by improving intelligence.

Each sentence in this argument is in just the right place. Plenty of wrong places were available. Suppose Russell instead wrote it like this:

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* *Skeptical Essays* (1935; reprint, London: Allen and Unwin, 1977), p. 127.

The evils of the world are due to moral defects quite as much as lack of intelligence. Until some method of teaching virtue has been discovered, progress will have to be sought by improvement of intelligence rather than of morals. Intelligence is easily improved by methods known to every competent educator. But the human race has not hitherto discovered any means of eradicating moral defects.

These are exactly the same premises and conclusion, but they are in a different order, and the word "therefore" has been omitted before the conclusion. Now the argument is *much* harder to understand. The premises do not fit together naturally, and you have to read the passage twice just to figure out what the conclusion is. Don't count on your readers to be so patient.

Expect to rearrange your argument several times to find the most natural order. The rules discussed in this book should help. You can use them not only to tell what premises you need but also how to arrange your premises in the most natural order.

3.   Start from reliable premises

No matter how well you argue *from* premises to conclusion, your conclusion will be weak if your premises are weak.

Nobody in the world today is really happy. Therefore, it seems that human beings are just not made for happiness. Why should we expect what we can never find?

The premise of this argument is the statement that nobody in the world today is really happy. Ask yourself if this premise is plausible. Is *nobody* in the world today really happy? At the very least this premise needs some defense, and very likely it is just not true. This argument cannot show, then, that human beings are not made for happiness or that we should not expect to be happy.

Sometimes it is easy to start from reliable premises. You may have well-known examples at hand or informed authorities who are clearly in agreement. Other times it is harder. If you are not sure about the reliability of a premise, you may need to do some research and/or give a short argument for the premise itself. (We will return to this theme in later chapters, especially in Rule A2 of Chapter VII.) If you find you *cannot* argue adequately for your premise(s), then, of course, you need to give up entirely and start elsewhere!

4. Be concrete and concise

Avoid abstract, vague, and general terms. "We hiked for hours in the sun" is a hundred times better than "It was an extended period of laborious exertion." Be concise too. Airy elaboration just loses everyone—even the writer—in a fog of words.

NO:

For those whose roles primarily involved the performance of services, as distinguished from assumption of leadership responsibilities, the main pattern seems to have been a response to the leadership's invoking obligations that were concomitants of the status of membership in the societal community and various of its segmental units. The closest modern analogy is the military service performed by an ordinary citizen, except that the leader of the Egyptian bureaucracy did not need a special emergency to invoke legitimate obligations.*

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* This passage is from Talcott Parsons, *Societies: Evolutionary and Comparative Perspectives* (Englewood Cliffs, NJ: Prentice Hall, 1966), p. 56. I owe the quotation and the rewritten version that follows to Stanislas Andreski, *Social Sciences as Sorcery* (New York: St. Martin's Press, 1972), Chapter 6.

YES:

>   In ancient Egypt the common people were liable to be con-
>   scripted for work.

5.   Avoid loaded language

Do not make your argument look good by mocking or distorting
the other side. Generally, people advocate a position for serious
and sincere reasons. Try to figure out their view—try to get it
right—even if you disagree entirely. A person who questions a
new technology is not in favor of "going back to the caves," for
example, and a person who believes in evolution is not claiming
that her grandma was a monkey. If you can't imagine how
anyone could hold the view you are attacking, you just don't
understand it yet.

In general, avoid language whose only function is to sway the
emotions. This is "loaded language."

>   Having so disgracefully allowed her once-proud passenger
>   railroads to fade into obscurity, America is honor bound to re-
>   store them now!

This is supposed to be an argument for restoring (more) pas-
senger rail service. But it offers no evidence for this conclusion
whatsoever, just some emotionally loaded words—shopworn
words, too, like a politician on automatic. Did passenger rail
"fade" because of something "America" did or didn't do? What
was "disgraceful" about this? Many "once-proud" institutions
fall into disarray, after all—we're not obliged to restore them
all. What does it mean to say America is "honor bound" to do
this? Have promises been made and broken? By whom?

Much can be said for restoring passenger rail, especially
in this era when the ecological and economic costs of high-
ways are becoming enormous. The problem here is that this
argument does not say it. It lets the overtones of the words do all
the work, and therefore really does no work at all. We're left

exactly where we started. When it's your turn, stick to the evidence.

6. Use consistent terms

Arguments depend on clear connections between their premises and between premises and conclusion. For this reason it is vital to use a single set of terms for each idea.

> NO:
>
> If you study other cultures, then you realize the variety of human customs. If you understand the diversity of social practices, then you question your own customs. If you acquire doubts about the way you do things, then you become more tolerant. Therefore, if you expand your knowledge of anthropology, then you become more likely to accept other people and practices without criticism.

> YES:
>
> If you study other cultures, then you realize the variety of human customs. If you realize the variety of human customs, then you question your own customs. If you question your own customs, then you become more tolerant. Therefore, if you study other cultures, then you become more tolerant.

Notice that in both versions, each of the sentences has the form "If X, then Y." But now look at the differences.

The second ("Yes") version is crystal clear—because the Y of each premise is exactly the X of the next. The Y of the first is exactly the X of the second, the Y of the second is exactly the X of the third, and so on. (Go back and look.) This is why the argument is so easy to read and understand: It forms a kind of chain.

In the first ("No") version, though, the Y of the first premise is only roughly the X of the second, the Y of the second premise is only roughly the X of the third, and so on. Here each X and Y

is written as if the author had consulted the thesaurus at every opportunity. "More tolerant," in the third premise, for instance, is written as "more likely to accept other people and practices without criticism" in the conclusion. As a result, the argument loses the obvious connection between its parts that could make it clear and persuasive. The writer shows off, but the reader—who is not privileged to know the structure of the argument from the start—just flounders.

7. Stick to one meaning for each term

Some arguments slide from one meaning of a term to another to make their case. This is the classical fallacy of *equivocation:*

> Women and men are physically and emotionally different. The sexes are *not* "equal," then, and therefore the law should not pretend that we are!

This argument may seem plausible at first glance, but between premise and conclusion it moves between two very different senses of the term "equal." True enough, the sexes are not physically and emotionally "equal" in the sense in which "equal" means simply "identical." "Equality" before the *law,* however, does not mean "physically and emotionally identical" but "entitled to the same rights and opportunities." Rephrased, then, with the two different senses of "equal" made clear, the argument goes:

> Women and men are not physically and emotionally identical. Therefore, women and men are not entitled to the same rights and opportunities.

This version of the argument no longer equivocates on "equal," but it is still not a good argument; it is only the original inadequate argument with the inadequacy no longer hidden. Once the equivocation is removed, it is clear that the argument's

conclusion is neither supported by nor even related to the premise. No reason is offered to show that physical and emotional differences should have anything to do with rights and opportunities.

Sometimes we are tempted to equivocate by making a key word *vague*. Consider the following conversation:

> A: Everyone is really just selfish!
>
> B: But what about John? Look how he devotes himself to his children!
>
> A: He is only doing what he really wants to do—that's still selfish!

Here the meaning of "selfish" changes from A's first claim to A's second. In the first claim, we understand "selfish" to mean something fairly specific: the grasping, self-centered behavior we ordinarily call "selfish." In A's response to B's objection, A expands the meaning of "selfish" to include apparently unselfish behavior too, by broadening the definition to just "doing what you really want to do." A saves only the *word*; it has lost its original meaning.

A good way to avoid equivocation is to carefully *define* any key terms when you introduce them. Then be sure to use them only as you've defined them! You also may need to define special terms or technical words. See the Appendix for a discussion of the process and pitfalls of definition.

II

Arguments by Example

Arguments by example offer one or more specific examples in support of a generalization.

> Women in earlier times were married very young. Juliet in Shakespeare's *Romeo and Juliet* was not even fourteen years old. In the Middle Ages thirteen was the normal age of marriage for a Jewish woman. And during the Roman Empire many Roman women were married while thirteen or younger.

This argument generalizes from three examples—Juliet, Jewish women in the Middle Ages, and Roman women during the Roman Empire—to "many" or *most* women in earlier times. To show the form of this argument most clearly, we can list the premises separately, with the conclusion on the "bottom line":

> Juliet in Shakespeare's play was not even fourteen years old.
>
> Jewish women during the Middle Ages were normally married at thirteen.
>
> Many Roman women during the Roman Empire were married while thirteen or younger.
>
> Therefore, many women in earlier times were married very young.

Often I will write short arguments in this way when it is important to see exactly how they work.

When do premises like these adequately support a generalization?

One requirement, of course, is that the examples be accurate. Remember Rule 3: An argument must start from reliable premises! If Juliet *wasn't* around fourteen, or if most Roman or Jewish women *weren't* married at thirteen or younger, then the argument is much weaker, and if none of the premises can be supported, there is no argument at all. To check an argument's examples, or to find good examples for your own arguments, you may need to do some research.

But suppose the examples *are* accurate. Generalizing from them is still a tricky business. Chapter II offers a short checklist for assessing arguments by example—both your own and others'.

8.   Give more than one example

A single example can sometimes be used for the sake of *illustration*. The example of Juliet alone might illustrate early marriage. But a single example offers next to no *support* for a generalization. More than one example is needed.

NO:

> Women's rights to vote were won only after a struggle.
>
> Therefore, all women's rights are won only after a struggle.

YES:

> Women's rights to vote were won only after a struggle.
>
> Women's rights to attend colleges and universities were won only after a struggle.
>
> Women's rights to equal employment opportunity are being won only after a struggle.
>
> Therefore, all women's rights are won only after a struggle.

In a generalization about a small set of things, the best argument considers all, or nearly all, the examples. A generalization about all American presidents since Kennedy should consider each of them in turn. Likewise, the argument that women's rights always have required struggles should consider all, or most, important rights.

Generalizations about larger sets of things require picking out a "sample." We certainly cannot list all women in earlier times who married young; instead, our argument must offer a few women as examples of the rest. How many examples are required depends partly on their representativeness, a point Rule 9 takes up. It also depends partly on the size of the set being generalized about. Large sets usually require more examples. The claim that your town is full of remarkable people requires more evidence than the claim that, say, your *friends* are remarkable people. Depending on how many friends you have, even just two or three examples might be enough to establish that your friends are remarkable people, but unless your town is tiny, many more examples are required to show that your town is full of remarkable people.

9.   Use representative examples

Even a large number of examples may *misrepresent* the set being generalized about. A large number of examples of Roman women alone, for instance, might establish very little about women generally, since Roman women are not necessarily representative of women in other parts of the world. The argument needs to consider women from other parts of the world as well.

> Everyone in my neighborhood favors McGraw for president. Therefore, McGraw is sure to win.

This argument is weak because single neighborhoods seldom represent the voting population as a whole. A well-to-do neigh-

borhood may favor a candidate who is unpopular with everyone else. Student wards in university towns regularly are carried by candidates who do poorly elsewhere. Besides, we seldom have good evidence even about neighborhood views. The set of people who put signs in their yards and stickers on their cars (and whose lawns are visible from busy roads or who drive regularly and/or park their cars in noticeable locations) may well misrepresent the neighborhood as a whole.

A *good* argument that "McGraw is sure to win" requires a representative sample of the entire voting population. It is not easy to construct such a sample. Public-opinion polls, for instance, construct their samples very carefully. They learned the hard way. In 1936, the *Literary Digest* conducted the first large-scale public opinion poll, predicting the outcome of the presidential contest between Roosevelt and Landon. Names were taken, as they are now, from telephone listings, and also from automobile registration lists. The number of people polled was certainly not too small: more than two million "ballots" were counted. The poll predicted a wide victory for Landon. Roosevelt, however, won easily. In retrospect it is easy to see what went wrong. In 1936 only a select portion of the population owned telephones and cars. The sample was sharply biased toward wealthy and urban voters, more of whom supported Landon.*

Polls have improved since then. Nonetheless, there are worries about the representativeness of their samples, particularly when the samples are small. Nearly everyone now has a telephone, to be sure, but some people have more than one; many others have unlisted numbers; some numbers represent a whole household of voters and others only one; some people are unwilling to talk to pollsters; and so on. Even carefully selected

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* Mildred Parten, *Surveys, Polls, and Samples* (New York: Harper and Row, 1950), pp. 25, 290, 393–5. Parten also shows that lower income people, who were less likely to receive "ballots" than wealthy people, were less likely to return them, too.

samples, then, may be unrepresentative. Many of the best polls, for instance, badly miscalled the 1980 presidential election.

The representativeness of any given sample, then, is always somewhat uncertain. Anticipate this danger! Look for samples that represent the whole population being generalized about. If you want to know how much television children watch, don't just survey the third graders at your local public school. If you want to know what people in other countries think about the United States, don't just ask tourists.

Do some research. Juliet, for example, is just one woman. Is she representative even of women in her time and place? In Shakespeare's play, Juliet's mother says to her:

> Think of marriage now; younger than you,
> Here in Verona, ladies of esteem,
> Are made already mothers. By my count,
> I was your mother much upon these years
> That you are now a maid . . .
>
>   (1.3.69–73)

This passage suggests that Juliet's marriage at fourteen is not exceptional; in fact, fourteen seems to be a little on the old side.

When making your own argument, do not rely only on examples that come "off the top of your head." The sorts of examples you think of at a moment's notice are likely to be biased. Again, do some reading, think about the appropriate sample carefully, and keep yourself honest by looking for counterexamples (Rule 11).

10. Background information is crucial

We often need *background information* before we can assess a set of examples.

> You should use Slapdash Services—we already have dozens of completely satisfied customers in your area!

Slapdash may indeed have "dozens" of "completely" satisfied customers in your area—although this sort of claim is often made without any evidence at all—but you also need to consider how many people in your area have *tried* Slapdash. If a thousand people have tried Slapdash and two dozen are satisfied, then, although there are indeed "dozens" of satisfied customers, Slapdash satisfies only 2.4 percent of its customers. Try somewhere else.

Here is another example.

> The "Bermuda Triangle" area off Bermuda is famous as a place where many ships and planes have mysteriously disappeared. There have been several dozen disappearances in the past decade alone.

No doubt. But "several dozen" out of how many ships and planes that *passed through* the area? Several dozen or several tens of thousands? If only several dozen have disappeared out of (say) twenty thousand, then the disappearance rate in the Bermuda Triangle may well be normal or even low—certainly not mysterious.

Consider how often, when buying a car or selecting a school, we are swayed by the reports of a few friends or one or two experiences of our own. Hearing about someone's sister-in-law who had a terrible time with her Volvo is enough to keep us from buying a Volvo—even though *Consumer Reports* might indicate that Volvos are generally very reliable cars. We let one vivid example outweigh the careful summary and comparison of thousands of repair records. Richard Nisbett and Lee Ross term this the "person who" argument,* as in "I know a *person who* smoked three packs of cigarettes a day and lived to be 100"

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* See *Human Inference: Strategies and Shortcomings of Social Judgment* (Englewood Cliffs, NJ: Prentice Hall, 1980), p. 61. Actually, they call it the "man who" argument; I have universalized the language.

or "I know a *person who* had a Volvo that was a real lemon." It is nearly always a fallacy. As Nisbett and Ross point out, one car that turns out to be a lemon changes the frequency-of-repair rates only slightly.

To judge a set of examples, then, we often need to consider background *rates*. Correspondingly, when an argument offers rates or percentages, the relevant background information usually must include the *number* of examples. Car thefts on campus may have increased 100 percent, but if this means that two cars were stolen rather than one, not much has changed.

Here is one last example:

> After an era when some athletic powerhouse universities were accused of exploiting student athletes, leaving them to flunk out once their eligibility expired, college athletes are now graduating at higher rates. At many schools their graduation rate is more than 50 percent.

Fifty percent, eh? Pretty impressive! But this figure, at first so persuasive, does not really do the job it claims to do.

First, though "many" schools graduate more than 50 percent of their athletes, it appears that some do not—so this figure may well exclude the most exploitative schools that really concerned people in the first place.

Second, it would be useful to know how a "more than 50 percent" graduation rate compares with the graduation rate for *all* students at the same institutions. If it is significantly lower, athletes may still be getting the shaft.

Finally and perhaps most important, this argument offers no reason to believe that college athletes' graduation rates are actually *improving*—because no *comparison* to any previous rate is offered. Maybe we had the impression athletes' graduation rates used to be lower, but without knowing the previous rates it is impossible to tell!

11. Consider counterexamples

Test generalizations by asking if there are counterexamples.

> The Peloponnesian War was caused by the Athenians' desire to dominate Greece.
>
> The Napoleonic Wars were caused by Napoleon's desire to dominate Europe.
>
> World War II was caused by the Fascists' desire to dominate Europe.
>
> Thus, in general, wars are caused by the desire for territorial domination.

Are *all* wars, however, caused by the desire for territorial domination? Or might this generalization go too far beyond its examples?

In fact, there are counterexamples. Revolutions, for example, have quite different causes. So do civil wars.

If you can think of counterexamples to a generalization that you want to defend, revise your generalization. If the above argument were yours, for instance, you might change the conclusion to "Wars *between independent states* are caused by the desire for territorial domination." Even this may overgeneralize, but at least it's more defensible than the original.

Other times you may want to dispute the supposed counterexample. World War I, someone may object, seems to have been caused not by the desire for territorial domination but by a network of mutual defense pacts and other political intrigues, by the restlessness of the European upper classes, by nationalist unrest in Eastern Europe, and so on. In the face of this example, you might, of course, give up your claim entirely or weaken it still further. Another response, however, is to argue that the supposed counterexample actually does conform to the generalization. After all (you might argue), the desires of the European powers to dominate Europe were the *motives* for the mutual defense pacts and other intrigues that finally set off the war.

And might not nationalist unrest, too, be caused by unjust domination presently in place? Here, in effect, you try to reinterpret the *counter*example as another *example*. The initial challenge to your conclusion becomes another piece of evidence for it. You may or may not change the phrasing of your conclusion: In any case, you now understand your claim better, and you are prepared to answer an important objection.

Also try to think of counterexamples when you are assessing others' arguments. Ask whether *their* conclusions might have to be revised and limited, whether perhaps those conclusions might have to be given up entirely, or whether a supposed counterexample might be reinterpreted as another example. The same rules apply to anyone else's arguments as apply to yours. The only difference is that you have a chance to correct your overgeneralizations yourself.

III

Arguments by Analogy

There is an exception to Rule 8 ("Give more than one example"). *Arguments by analogy*, rather than multiplying examples to support a generalization, argue from *one* specific case or example to another example, reasoning that because the two examples are alike in many ways they are also alike in one further specific way.

For example, here is how a medical administrator argues that everyone should have a regular physical checkup:

> People take in their car for servicing and checkups every few months without complaint. Why shouldn't they take similar care of their bodies?[*]

This argument suggests that getting a regular physical checkup is *like* taking your car in for regular servicing. Cars need that kind of attention—otherwise, major problems may develop. Well, says Dr. Beary, our bodies are like that too.

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[*] Dr. John Beary III, quoted in "News You Can Use," *U.S. News and World Report*, 11 August 1986, p. 61.

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