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.

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

People should take their cars in for regular service and checkups (otherwise major problems may develop).

People's bodies are *like* cars (because human bodies, too, can develop problems if not regularly checked up).

Therefore, people should take themselves in for regular "service" and checkups too.

Notice the italicized word "like" in the second premise. When an argument stresses the likeness between two cases, it is very probably an argument from analogy.

Here is a more complex example.

An interesting switch was pulled in Rome yesterday by Adam Nordwell, an American Chippewa chief. As he descended his plane from California dressed in full tribal regalia, Nordwell announced in the name of the American Indian people that he was taking possession of Italy "by right of discovery" in the same way that Christopher Columbus did in America. "I proclaim this day the day of the discovery of Italy," said Nordwell. "What right did Columbus have to discover America when it had already been inhabited for thousands of years? The same right I now have to come to Italy and proclaim the discovery of your country."*

Nordwell is suggesting that his "discovery" of Italy is *like* Columbus's "discovery" of America in at least one important way: Both Nordwell and Columbus claimed a country that already had been inhabited by its own people for centuries. Thus Nordwell insists that he has as much "right" to claim Italy as Columbus had to claim America. But, of course, Nordwell has no right at all to claim Italy. Therefore, Columbus had no right at all to claim America.

* *Miami News*, 23 September 1973.

Nordwell has no right to claim Italy for another people, let alone "by right of discovery" (because Italy has been inhabited by its own people for centuries).

Columbus's claim to America "by right of discovery" is *like* Nordwell's claim to Italy (America, too, had been inhabited by its own people for centuries).

Therefore, Columbus had no right to claim America for another people, let alone "by right of discovery."

How do we evaluate arguments by analogy?

The first premise of an argument by analogy makes a claim about the example used as an analogy. Remember Rule 3: make sure this premise is true. It's true that cars need regular service and checkups to keep major problems from developing, for instance, and it's true that Adam Nordwell could not claim Italy for the Chippewa.

The second premise in arguments by analogy claims that the example in the first premise is *like* the example about which the argument draws a conclusion. Evaluating this premise is harder, and needs a rule of its own.

12. *Analogy requires a relevantly similar example*

Analogies do not require that the example used as an analogy be *exactly* like the example in the conclusion. Our bodies are not just like cars, after all. We are flesh and bone rather than metal, we last longer, and so on. Analogies require *relevant* similarities. What cars are made of is irrelevant to Dr. Beary's point; his argument is about the upkeep of complex systems.

One relevant difference between our bodies and our cars is that our bodies do not need regular "service" in the way our cars do. Cars need service to replace or replenish certain parts and fluids: oil changes, new pumps or transmissions, and the like. Our bodies don't. Replacing parts or fluids is much rarer and is more like surgery or blood transfusion, not regular "servicing" at all. Still, it's probably true that we need regular checkups—

otherwise problems can develop undetected. So the doctor's analogy is only partly successful. The "service" part makes a poor analogy, though the checkup part is persuasive.

Likewise, twentieth-century Italy is not just like fifteenth-century America. Italy is known to every twentieth-century schoolchild, for instance, whereas in the fifteenth century America was unknown to much of the world. Nordwell is not an explorer, and a commercial jet is not the *Santa Maria*.

Nordwell suggests, however, that these differences are not relevant to his analogy. Nordwell simply means to remind us that it is senseless to claim a country already inhabited by its own people. Whether that land is known to the world's schoolchildren, or how the "discoverer" arrived there, is not important. The more appropriate reaction might have been to try to establish diplomatic relations, as we would try to do today if somehow the land and people of Italy had just been discovered. *That's* Nordwell's point, and taken in that way his analogy makes a good argument.

One famous argument uses an analogy to try to establish the existence of a Creator of the world. We can infer the existence of a Creator from the order and beauty of the world, this argument claims, just as we can infer the existence of an architect or carpenter when we see a beautiful and well-built house. Spelled out in premise-and-conclusion form:

> Beautiful and well-built houses must have "makers": intelligent designers and builders.
>
> The world is *like* a beautiful and well-built house.
>
> Therefore, the world also must have a "maker": an intelligent Designer and Builder, God.

Again, more examples are not needed here; the argument wishes to stress the similarity of the world to *one* example, a house.

Whether the world really *is* relevantly similar to a house, though, is not so clear. We know quite a bit about the causes of

houses. But houses are *parts* of nature. We know very little, actually, about the structure of nature as a *whole* or about what sort of causes it might be expected to have. David Hume discussed this argument in his *Dialogues Concerning Natural Religion* and asked:

> Is *part* of nature a rule for the whole? . . . Think [of how] wide a step you have taken when you compared houses . . . to the universe, and from their similarity in some circumstances inferred a similarity in their causes. . . . Does not the great disproportion bar all comparison and inference?*

The world is different from a house in at least this: A house is part of a larger whole, the world, while the world itself (the universe) is the largest of wholes. Thus Hume suggests that the universe is *not* relevantly similar to a house. Houses indeed imply "makers" beyond themselves, but—for all we know—the universe as a whole may contain its cause within itself. This analogy, then, makes a poor argument. Some other kind of argument is probably needed if the existence of God is to be inferred from the nature of the world.

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* David Hume, *Dialogues Concerning Natural Religion* (1779; reprint, Indianapolis: Hackett Publishing Company, 1980), Part II.

IV

Arguments from Authority

No one can become an expert, through direct experience, on everything there is to know. We cannot taste every wine in the world to determine which is best. We cannot know what the trial of Socrates was really like. We are unlikely to know firsthand what is happening in the state legislature, Sri Lanka, or outer space. Instead, we must rely on others—better-situated people, organizations, or reference works—to tell us much of what we need to know about the world. We need what are called *arguments from authority*.

> X (a source that ought to know) says Y.
>
> Therefore, Y is true.

For instance:

> My friend Marcos says Greek wines are the best in the world.
>
> Therefore, Greek wines are the best in the world.

But relying on others also can be a risky business. Everyone has their biases. Supposed authorities may mislead us, or may

be misled themselves, or may miss key parts of the big picture. Once again we must consider a checklist of requirements that good arguments from authority must meet.

13. Sources should be cited

Factual assertions not otherwise defended may be supported by reference to the appropriate sources. Some factual assertions, of course, are so obvious that they do not need support at all. It is usually not necessary to *prove* that the population of the United States is more than 200 million or that Juliet loved Romeo. However, a precise figure for the population of the United States or, say, for the current rate of population growth *does* need a citation. Likewise, the claim that Juliet was only fourteen should cite a few Shakespearean lines in support.

NO:

I once read that there are cultures in which makeup and clothes are mostly men's business.

If you're arguing about whether men and women everywhere follow the same sorts of gender roles as in the United States, this is a relevant example—a striking case of different gender roles. But it's probably not the sort of difference you have experienced yourself. To nail down the argument, you need to go back and find your source, check it out again, and cite it.

YES:

Carol Beckwith, in "Niger's Wodaabe" (*National Geographic* 164, no. 4 [October 1983]: 483–509), reports that among the West African Fulani peoples such as the Wodaabe, makeup and clothes are mostly men's business.

Citation styles vary—you may need a handbook of style to find the appropriate style for your purposes—but all include the

same basic information: enough so that others can easily find the source on their own.

14. Seek informed sources

Sources must be *qualified* to make the statements they make. The Census Bureau is entitled to make claims about the population of the United States. Auto mechanics are qualified to discuss the merits of different automobiles, doctors are qualified on matters of medicine, ecologists on the environmental effects of pollution, and so on. These sources are qualified because they have the appropriate background and information.

Where an authority's background or information are not immediately clear, an argument must explain them briefly. The argument cited in Rule 13, for example, might need to be expanded further:

> Carol Beckwith, in "Niger's Wodaabe" (*National Geographic* 164, no. 4 [October 1983]: 483–509), reports that among the West African Fulani peoples such as the Wodaabe, makeup and clothes are mostly men's business. Beckwith and an anthropologist colleague lived with the Wodaabe for two years and observed many dances for which the men prepared by lengthy preening, face-painting, and teeth-whitening. (Her article includes many pictures too.) Wodaabe women watch, comment, and choose mates for their beauty—which the men say is the natural way. "Our beauty makes the women want us," one says.

A person who has lived with the Wodaabe for two years is indeed qualified to report on their everyday practices. Notice that she also cites their own words in turn—for ultimately, of course, the best authorities on Wodaabe practice are the Wodaabe themselves.

An informed source need not fit our general stereotype of "an authority"—and a person who fits our stereotype of an authority may not even be an informed source.

NO:

President Bernard of Topheavy College told parents and reporters today that classrooms at Topheavy promote lively and free exchange of ideas. Therefore, classrooms at Topheavy do indeed promote lively and free exchange of ideas.

The president of a college may know very little about what happens in its classrooms.

YES:

An accreditation committee's tabulation of all student course evaluations for the past three years at Topheavy College shows that only 5 percent of all students answered "Yes" when asked whether classes at Topheavy promoted lively and free exchange of ideas. Therefore, classes at Topheavy seldom promote lively and free exchange of ideas.

In this case, students are the most informed sources.

Note that authorities on one subject are not necessarily informed about every subject on which they offer opinions.

Einstein was a pacifist; therefore pacifism must be right.

Einstein's genius in physics does not establish him as a genius in political philosophy.

Sometimes, of course, we must rely on authorities whose knowledge is better than ours but still less than perfect. For example, governments or others sometimes try to limit the information we can get about what is happening in a war zone or a political trial. The best information we can get may be fragmentary—through international human rights organizations like Amnesty International, for example. If you must rely on an authority with imperfect knowledge, acknowledge the problem. Let your readers or hearers decide whether imperfect authority is better than none at all.

Finally, beware of supposed authorities who claim to know what they could not possibly know. If a book claims to be "written as if the author had been a fly on the wall of the most closely guarded room in the Pentagon,"* you can reasonably guess that it is a book full of conjecture, gossip, rumors, and other untrustworthy information (unless, of course, the author really *was* a fly on the wall of the most closely guarded room in the Pentagon). Similarly, religious moralists often have declared that certain practices are wrong because they are contrary to the will of God. We should reply that God ought to be spoken for a little more cautiously. God's will is not easy to ascertain, and when God speaks so softly it is easy to confuse that "still small voice" with our own personal prejudices.

15. Seek impartial sources

People who have the most at stake in a dispute are usually not the best sources of information about the issues involved. Sometimes they may not even tell the truth. The person accused in a criminal trial is presumed innocent until proven guilty, but we seldom completely believe his or her claim to be innocent without confirmation from impartial witnesses. But even a willingness to tell the truth as one sees it is not always enough. The truth as one honestly sees it still can be biased. We tend to see what we expect to see: We notice, remember, and pass on information that supports our point of view, but we are not quite so motivated when the evidence points the other way.

Don't just rely on the president, then, if the issue is the effectiveness of the administration's policies. Don't just rely on the government for the best information on the human rights situation in countries the government happens to support or oppose. Don't just rely on interest groups on *one* side of a major public question for the most accurate information on the issues

* Advertisement in *New York Times Book Review*; 9 December 1984, p. 3.

at stake. Don't just rely on a product's manufacturer for the best information concerning that product.

NO:

Ads for Energizer batteries claim that Energizers are significantly better than other batteries. Therefore, Energizers are significantly better than other batteries.

Sources should be impartial. The best information on consumer products comes from the independent consumer magazines and testing agencies, because these agencies are unaffiliated with any manufacturer and must answer to consumers who want the most accurate information they can get.

YES:

Consumer Reports tested a variety of batteries and found no significant differences between them for nearly all uses (see "Who Sells the Best Cells?" *Consumer Reports*, December 1999, pp. 51–3). Therefore, Energizers are not significantly better than other batteries.

Likewise, independent servicepeople and mechanics are relatively impartial sources of information. An organization like Amnesty International is an impartial source on the human rights situation in other countries because it is not trying to support or oppose any specific government. On political matters, so long as the disagreements are basically over statistics, look to independent government agencies, such as the Census Bureau, or to university studies or other independent sources.

Make sure the source is *genuinely* independent and not just an interest group masquerading under an independent-sounding name. Check their sources of funding; check their other publications; and check the tone of the quoted report or book. At the very least, try to confirm for yourself any factual claim quoted from a potentially biased source. Good arguments cite their sources (Rule 13); look them up. Make sure the evidence is

quoted correctly and not pulled out of context, and check for further information that might be relevant. You are then entitled to cite those sources yourself.

16. Cross-check sources

When experts disagree, you cannot rely on any one of them alone. Before you quote any person or organization as an authority, you should check to make sure other equally qualified and impartial people or organizations agree. One strength of Amnesty International's reports, for instance, is that they usually are corroborated by reports from other independent human rights monitoring organizations. (Again, they often *conflict* with the reports of governments, but governments are seldom so impartial.)

Authorities agree chiefly on specific factual questions. That Wodaabe men spend a great deal of time on clothes and makeup is a specific factual claim, for instance, and in principle is not hard to verify. But as for larger and more intangible issues, it is harder to find authorities who agree. On many philosophical issues it is difficult to quote anyone as an uncontested expert. Aristotle disagreed with Plato, Hegel with Kant. You may be able to use their *arguments*, then, but no philosopher will be convinced if you merely quote another philosopher's conclusions.

17. Personal attacks do not disqualify a source

Supposed authorities may be disqualified if they are not informed, impartial, or largely in agreement. Other sorts of attacks on authorities are not legitimate.

These are often called *ad hominem* fallacies: attacks on the *person* of an authority rather than his or her specific qualifications to make the claim in question. If someone discounts a supposed authority simply because they don't like the person—don't like fundamentalists or Japanese or lesbians or rich peo-