Chapter 28

The Appeal to Authority

You now know that there are three broad kinds of arguments—deductive, inductive, and conductive. So far, we've studied an important category of deductive arguments—namely the Moleculan-analyzable arguments. In this chapter, we take up one of the most important categories of inductive arguments.

Two ways in which inductive arguments differ from deductive arguments

Before we get into our new kind of argument, however, we need to notice two respects in which inductive arguments are different from deductive arguments. These two points will show up again and again as we study various kinds of inductive arguments, so we will do well to have them clear in our minds before we start—especially because we've been focusing on deductive arguments until now, and we need to be ready to adjust our thinking as we take up inductive arguments.

Here's the first difference between the two kinds of arguments: ***The cogency of inductive arguments isn't as black-and-white a matter as is the soundness of deductive arguments***. Deductive arguments are either valid or they're not, because they either insure certainty in their conclusions or they don't; and their conclusions are either true or false. But inductive arguments are only seeking to impart *probability* to their conclusions, and ***probability admits of degrees***. So the question with inductive arguments often isn't whether they are good or bad, cogent or not, but it's how good or bad they are, how cogent or non-cogent. There are degrees of strength in inductive reasoning. Some inductive arguments are lousy, others are mediocre, others are strong, others are very strong, and still others are so strong that they come close to deductive certainty.

When we test a Moleculan-analyzable argument for validity, we apply our test to it and reach the conclusion that the argument either is or isn't valid. There's no gray area between validity and invalidity. But with inductive arguments, there is a huge gray area between cogency and non-cogency. We will often find ourselves having to use our judgment; we can't just follow some steps and—almost mechanically—get the answer that an argument is or isn't cogent. It's common, when you're assessing an inductive argument, to say something like the following:

> That aspect of this argument is pretty strong, but there is a problem with another aspect of it that weakens it somewhat. On the whole, I would say it's a moderately strong argument.

You rarely have to make judgments like that with deductive arguments.

Many students find it difficult to make the transition from following the rules to get 'the answer'—as you can do with deductive arguments—to weighing the strengths and weaknesses of arguments, using judgment. If you're one of those, then it may help you to keep in mind that inductive arguments are far more important in life than deductive arguments. That's why we

have to learn how to recognize and assess them. When you're struggling with inductive arguments, you will need all the motivation you can find.

The second difference between deductive and inductive arguments is more subtle, but equally important. It has to do with the distinction between the two aspects of cogency: good premises and good reasoning. With deductive arguments, we focus in logic class on testing their reasoning—i.e., their validity or invalidity. That's because deductive arguments can employ an infinite variety of reasoning patterns, and those patterns can be tested quite reliably using the methods we study. In short, we *can* learn a lot of interesting things about how to assess the reasoning of deductive arguments, so we do. Inductive arguments, on the other hand, don't follow all that many reasoning patterns. Furthermore, there aren't a lot of useful techniques available for assessing those reasoning patterns. Consequently, ***there isn't much to say about the reasoning in inductive arguments***—at least, not when you study inductive arguments the way we're going to do.

The way we're going to approach inductive arguments is to learn to recognize several very common patterns of inductive reasoning. The arguments that we encounter in life that manifest these patterns are almost always enthymematic, so the next thing we'll learn to do after we can recognize a given inductive argument type is to find the implicit premises when we meet an ethymeme. Finally, to assess an inductive argument's cogency, we will have to focus on the various ways in which each inductive argument's premises can be false. The result is that our assessment methods for inductive arguments will involve a lot more focus on the truth values of premises than our deductive assessment methods did, and very little explicit focus on the patterns of reasoning. This gives the study of inductive arguments a very different flavor from the study of deductive arguments.

With these points in mind, we can now take up the first of our inductive arguments, the appeal to authority.

Two kinds of authority

'Who are the *authorities* in your school?' Suppose I asked you that question. What would you take me to mean by 'authorities'? The most natural way to understand my question would be, 'Who are the people who hold positions of authority in your school?' or, 'Who are the persons who must be obeyed by students and others in your school?' So you would most likely tell me that your school principal or headmaster is an authority in your school, and that the teachers are also authorities—and there might be others.

That is all to say that we use the word 'authority' some of the time to refer to someone who has the right to require obedience from others. Thus we speak of 'an authority figure' in a person's life. That's someone whom that person believes he ought to obey. Or we read in the newspaper that someone reported a crime 'to the authorities'. That probably means the police. Similarly, we might hear someone say that a certain person in a corporation has the authority to make a certain decision. That means that the decision he makes has to be respected as binding—in that sense, obeyed—by everyone else who might be involved with the decision.

But now suppose I told you that a certain person—let's call her Professor Jones—was an *authority* on ancient Greek mathematics. What would you take that to mean? Would you suppose that Professor Jones could require obedience from anyone who was studying ancient

Greek math? Or that ancient Greek mathematicians obeyed her? Of course not. You would understand me to be asserting that Professor Jones was an *expert* on this particular subject.

We see, then, that we sometimes use the word 'authority' with a different meaning from the right to be obeyed. As the example of Professor Jones indicates, **'authority' can mean 'expert', or 'very knowledgeable person'**. An authority in this sense deserves our respect, but not necessarily our obedience.

In this chapter, we will be examining a class of inductive arguments called *appeals to authority*. It is very important that you understand that we mean 'authority' in the sense of 'expert' in this discussion, and *not* 'authority' as 'someone who must be obeyed'. If you don't keep this clear, you will become confused at many points.

The appeal to authority

In the ***appeal to authority***, we argue according to the following form, which we will call the ***explicit form of the appeal to authority***:

⟨Person A⟩ is a trustworthy authority on ⟨Subject S⟩. (1)
⟨Person A⟩ says, concerning ⟨Subject S⟩, ⟨C⟩.
Therefore, ⟨C⟩.

Before we look at what (1) says, we should notice that it is **a new kind of argument form**. This is the kind of argument form we'll use for inductive arguments. You'll notice it consists of some fairly ordinary English sentences, except that here and there you have something enclosed within angle brackets—'⟨' and '⟩'. The bracketed bits can stand for statements (as Moleculan sentence letters do), but they can also stand for names, words, or phrases. In short, they can stand for pretty much anything! You have to figure out from the context, and from the phrase inside the brackets, what sort of thing it stands for.

Look at (1) in particular. Note its elements—the various things mentioned in it. First, we have some person, designated in the argument form by '⟨Person A⟩'. This person shows up in both premises. The first premise says that he is an expert who can be trusted on some subject, and the second asserts that he has said something about that subject. So ⟨Person A⟩ is the authority who is being appealed to in the appeal to authority.

Next, we have something designated by '⟨Subject S⟩'. What's that? It's any area in which someone can be an authority. Examples of such subjects might be particle physics, National-League baseball pitchers, pest control methods, and the spelling bees of the late Middle Ages. You can probably think of others. In our argument form, we see that the subject designated '⟨Subject S⟩' shows up first as a subject on which ⟨Person A⟩ is an authority, and second as a subject on which ⟨Person A⟩ has said something.

The final abbreviated element in (1) is the thing designated by '⟨C⟩'. It's a *statement* having something to do with ⟨Subject S⟩. (We can tell that it's a statement from its context in the argument form.) And it is a statement that has been made by ⟨Person A⟩. Significantly, it is also the conclusion of the argument—which suggests how to look for it when you're analyzing an appeal to authority. (I've named it '⟨C⟩' to serve as a reminder that it is the conclusion.)

When you meet an appeal to authority and want to assess its cogency, start by putting it

into explicit form—the same form as (1). For example, suppose you came across this argument in a newspaper editorial calling for government price controls on car parts:

> Professor R. Pendleton Wingnut, one of the world's leading experts on the pricing of auto parts, recently warned a congressional panel of an imminent rise in the price of remote-control ashtray components, which, he said, 'could add as much as $8.17 to the price of a new Jaguar'. Such dire warnings need to be heeded, or we could soon see luxury sports sedans priced beyond the reach of the middle class. (2)

The first thing to do in assessing this argument is to identify the authority, the subject, and the conclusion, and then write it out in the same format as (1). The three elements of the argument that we're looking for are as follows:

> ⟨Person A⟩ is Professor Wingnut.
> ⟨Subject S⟩ is the pricing of auto parts.
> ⟨C⟩ is the statement that the price of remote-control ashtray components will rise soon, adding as much as $8.17 to the price of a new Jaguar.

With these in mind, we can put the argument into its explicit form:

> Professor Wingnut is a trustworthy authority on the pricing of auto parts. (3)
> Professor Wingnut says, concerning the pricing of auto parts, that the price of remote-control ashtray components will rise soon, adding up to $8.17 to the price of a new Jaguar.
> ---
> Therefore, the price of remote-control ashtray components will rise soon ....

From here, the editorial writer draws his own conclusion—that such warnings as Professor Wingnut's need to be heeded or else there will be serious consequences (or, at any rate, what the editorial writer takes to be serious consequences).

So far, we've just analyzed argument (2), to see how it fits the form of the appeal to authority. We'll come back later to the steps to take in assessing how cogent an argument it is.

Why is the appeal to authority an inductive argument? The key consideration is that **this form of argument cannot in general *guarantee* that its conclusion is true**. In other words, it can only make its conclusion probable, which is why we classify it as an inductive argument form. That, of course, is because experts do not know everything and are not free of sin, and so what they say can be mistaken or even deliberately deceptive. The fact that the world's foremost authority on radiocarbon dating says that a certain object is about 3,500 years old, for instance, may make that probable, but it doesn't make it certain.

One final point worth making here—at some length—is that the appeal to authority usually appears as an enthymeme. In particular, the first premise in the complete argument form is frequently omitted (which is to say that it is implicit), and the 'concerning ⟨Subject S⟩' part of the second premise is then also left out. So you very often encounter the appeal to authority in this form, which we'll called the ***enthymematic form of the appeal to authority***:

⟨Person A⟩ says ⟨C⟩. (4)
Therefore, ⟨C⟩.

Putting the appeal to authority in this way does not make it fallacious, but it makes it easier to hide the fact that it's fallacious, if indeed it is. A common fallacy that arises in appeals to authority is to cite, concerning one subject, an authority who is an expert on some other subject. Many of the appeals to authority that one hears are fallacious in this way, and that's one reason people like to put them in the enthymematic form. It helps to conceal the fallacy.

In fact, it is not uncommon to see the appeal to authority in an even more abbreviated form:

⟨Person A⟩ says ⟨C⟩. (5)

Let's call this the ***super-enthymematic form of the appeal to authority***. In this case, we are meant to supply the conclusion, as well as the other premise.

This super-enthymematic form of the appeal to authority very frequently turns up in advertising, along these (fictitious) lines:

Michael Jordan says, 'Lynch & Burnham is *the* brokerage firm for serious investors.' (6)

Here, it is intended that we draw the conclusion that Lynch & Burnham is indeed the brokerage firm for serious investors. What is less clear is whether we are meant to think about the implicit premise, to the effect that Michael Jordan is a trustworthy authority on selecting brokerage firms suitable for serious investors. (On the one hand, he certainly has a lot of money to invest, which makes him a serious investor, I suppose. But he may also have been paid to commend Lynch & Burnham, which would raise questions about his trustworthiness on this point.)

Assessing the cogency of the appeal to authority

Having considered the nature and parts of the appeal to authority, we turn now to consider how to assess the cogency of arguments of this type.

Let's start with the strongest kind of appeal to authority, in enthymematic form:

God says ⟨C⟩. (7)
Therefore, ⟨C⟩.

God is the ultimate authority on everything, isn't he? He knows all things, and he cannot lie, so anything he says must be true. So if the premise of argument (7) is true, and God really does say ⟨C⟩ , then ⟨C⟩ must be true, because God says it. This is the strongest appeal to authority. The only way to refute it is to show that God doesn't really say ⟨C⟩ at all.[1]

[1] Many in our day regard this kind of argument as superstitious, and dismiss it out of hand as being unscientific and unreasonable. My answer to such objections would be to ask what could be more reasonable than to trust the opinion of a being who cannot be mistaken and cannot lie.

Now let's consider the opposite extreme:

The Devil says ⟨C⟩. (8)
Therefore, ⟨C⟩.

Let us suppose that the premise is true, and that the Devil really does say ⟨C⟩—whatever ⟨C⟩ is. (This would be hard to establish, since we have few records of the Devil's sayings.) Does this argument provide any support for the conclusion—that is to say, for ⟨C⟩? No. The Devil is a liar, and is thus entirely unreliable.

What about this one?

The Devil says ⟨C⟩. (9)
Therefore, not ⟨C⟩.

Does the fact that the Devil says ⟨C⟩ establish that ⟨C⟩ is false? No. Being a liar does not entail that everything you say is false. We know from the Bible that the Devil is quite capable of mixing in true statements with his lies in order to make his lies more believable. The bottom line then is that the fact that the Devil says something tells us nothing about the truth of that thing.

What are we to do with appeals to authorities that lie somewhere between God and the Devil for reliability—as most do? How can we assess their strength or weakness, their cogency or non-cogency? The short answer is that we should ***put the argument into its explicit form, and then question each of the premises***. Note that the reasoning pattern of the argument is entirely captured by putting it into explicit form; consequently, most of our assessment process will focus on the truth values of the premises.

Let's recall the explicit form of the appeal to authority:

⟨Person A⟩ is a trustworthy authority on ⟨Subject S⟩.
⟨Person A⟩ says, concerning ⟨Subject S⟩, ⟨C⟩.
Therefore, ⟨C⟩.

We'll question the two premises in reverse order, using a series of questions.

1. Did ⟨Person A⟩ really say ⟨C⟩?
2. When he said ⟨C⟩, did he mean it in the same sense in which it is being used here?

These first two questions are aimed at the second premise, and are meant to insure that ⟨Person A⟩ isn't being misquoted, and that his words aren't being taken out of context in order to give them a 'spin' different from what he intended.

Next, we turn our attention to the first premise.

3. Is ⟨Person A⟩ truly a competent authority on ⟨Subject S⟩?
   - Is his expertise really in the area of ⟨Subject S⟩, or is it in some other area?
   - Do other people who know about ⟨Subject S⟩ recognize him as an authority, or has he given himself the title?

- Does he have a good track record when it comes to making pronouncements about ⟨Subject S⟩?

4. Is ⟨Person A⟩ trustworthy?
   - Might he have any conflict of interest?
   - Does he have an axe to grind?
   - If he's speaking on religious matters, what do the fruits say?
5. Are there other authorities on ⟨Subject S⟩ who might disagree with ⟨Person A⟩?
6. Can I find out why ⟨Person A⟩ believes ⟨C⟩ and evaluate his reasons myself?

Let's unpack these questions.

Question 3 questions the truth of one part of the first premise in the appeal to authority. That is, it asks whether ⟨Person A⟩ really is a competent authority on ⟨Subject S⟩. I have given three questions to ask on your way to answering 3. First, is ⟨Person A⟩'s real expertise in ⟨Subject S⟩? We often hear 'authorities' being cited who fail this basic test. Perhaps the most common are the movie stars whose opinions on political questions are widely reported as though they mattered more than your opinions or mine. It is debatable whether movie stars can be relied upon to be experts on anything at all, but even if we grant that they know something about acting and cinematography, why would we suppose that their views on politics were especially worthy of our notice? This is one of the more bizarre features of contemporary American culture.

The second question under 3 is meant to weed out ***self-appointed experts***. These are numerous in our day. They are the species of expert who publish a few articles or a book and promptly go on all the talk shows to answer questions about their chosen area of 'expertise'. A good question to ask is whether other people who know about ⟨Subject S⟩ would regard them as real experts. It may be difficult to answer this question, but by asking around and by doing a little research, you can usually find out whether the alleged expert is regarded as such by anyone other than himself, the talk-show hosts, and his publisher.

Finally, if you can, find out whether ⟨Person A⟩'s other claims about ⟨Subject S⟩ have stood up well in the face of facts. Of course, he could be wrong about everything else and still be right about ⟨C⟩, but if he's wrong about everything else, you're not going to attach much weight to the fact that he says ⟨C⟩. As we've observed, even the Devil sometimes says something true, but his testimony is still worthless because he's quite willing to give out falsehoods as truth. Our hapless expert ⟨Person A⟩ might not be as deliberately untruthful as the Devil, but he may simply be off base—even in his area of alleged expertise.

Question 4 gets at the other part of the first premise. You can't *trust* every expert. That's why you can dismiss the Devil as an authority. You can't trust him to tell the truth. Two specific problems might lead one to doubt the trustworthiness of an expert. First, he may have a ***conflict of interest***. That is, he may stand to profit in some way (monetarily or otherwise) from your taking his advice. If he has such a conflict of interest, then he *might* be telling the truth, but you'd want to question him more than you would if he had no conflicting interest. A recent example of this was that many Christians were very concerned during 1998 and 1999 about computer bugs related to the change of date to the year 2000 ('Y2K bugs'). I found it disturbing that so many people would attach so much weight to the opinions of people who were trying to sell them something! When some guy who sells food-storage systems tells you that an upcoming event is going to lead to food shortages, you shouldn't take it very seriously. He may be trying to get you to buy his product! (Salesmen do that, you know.) Find an expert to listen to who isn't

trying to profit from people who take his advice.

The second potential threat to trustworthiness is ***axe-grinding***. When we say that someone has an axe to grind, we mean that he has some theme which he loves to come back to time and time again, so that anything he says is really just another way for him to say the thing that he so wants to say. Usually this will be because of some deeply held belief or goal that he wants to propagate.

Many scientists (and so-called scientists) have problems in this area. Their statements, for instance, about the theory of evolution often reflect more on the fact that they believe in evolution than on any facts about biology or paleontology. They're committed to believing in and propagating the theory of general evolution, and so anything they say that gets within five miles of the subject will just be another way for them to say, 'I believe in evolution'. Imagine if one of these 'experts' handled an interview like this:

> Interviewer: Do you see a lot of evidence of evolution in the fossil record?
> Expert: Well, of course I do! That's because I'm looking for it. You always see what you're looking for! I firmly believe in evolution, so regardless of what I've actually seen, I'll tell you that it supports evolution!
> Interviewer: Are you saying that you don't see any evidence of evolution in the fossils?
> Expert: No, not at all. What I'm saying is that evolution is just true. Period. So let's not bother with silly and unnecessary questions about whether there's evidence! Of course there is, even if we can't see it!

The reason most scientists won't be so frank about their opinions is that they want their opinions to be taken by people to be the carefully thought out judgments of great experts, not the ravings of narrow-minded fanatics. But beneath the veneer of the expert, there often lurks the carefully disguised zealot for some theory or other. We shouldn't pay much attention to such people as authorities. Their views may be worth listening to, but not because of any expertise on their part. Rather, they may simply believe something that is right and makes sense. But if they try to pretend to be experts when all they're doing is preaching their basic beliefs, then something is fishy, to say the least.

There's one more question under 4, one which we should ask about any Christian teacher or preacher—or anyone who utters pronouncements on religious matters: What do the fruits say? Christ said that Christians would be able to know teachers of the truth from false teachers '**by their fruits**' (Mt. 7:16). Are this teacher's fruits good fruits, in his life and in the lives of his followers? Then it's probably good teaching. If not, then don't buy into his teaching, since it is probably an error. (We have to be careful here that we draw our rules for assessing the goodness of the fruit from the Bible, and not from our own or other people's values.)

Question 5 is very important. There are very few experts who are the only experts in the world in their subjects. Most fields of study have great armies of experts swarming all over them, and in many cases, there is a lot of debate and disagreement among those experts. So if someone trots out an expert on ⟨Subject S⟩ and wants you to believe what he says, you should try to find out if there are other experts who take a different view of the matter.

One test I use when I meet someone who wants to be treated as an authority is to ask him to explain to me in layman's language what the major schools of thought are in his field and how

they relate to one another, and where his own views fit in. If he answers that question at all well (and most don't), then I ask him to tell me the reasons why other experts disagree with his position. If he can't give a calm, reasoned answer to these questions, I generally tune him out. The only people whose opinions are worth anything are those who have honestly asked and answered the questions on which they have views. People who can't summarize their opponents' arguments show that they haven't appreciated those arguments, in which case why should we treat their opinions as well-informed?

Question 6 is most useful when you've not been able to answer the preceding questions. Essentially, it tells you to read up on ⟨Subject S⟩ and try to become your own expert. Don't just ask whether ⟨Person A⟩ says ⟨C⟩. Ask *why* he says it. What are his reasons? Do they make sense? While there really are many people out there who know a lot about various subjects, and we must never underestimate the value of their expertise and the difficulty of gaining enough understanding to question them, yet we must also not be fearful of asking for a common-sense explanation of why we should believe their views. Generally, if someone really knows his stuff, then he can explain his ideas to laymen.

Terms and concepts discussed in this chapter

two differences between inductive and deductive arguments that affect the way we study them
two meanings of 'authority'
the explicit form of the appeal to authority
argument forms for inductive arguments
what makes the appeal to authority an inductive argument
the enthymematic form of the appeal to authority
the super-enthymematic form of the appeal to authority
questions for assessing the cogency of an appeal to authority
self-appointed experts
conflicts of interest
axe-grinding
the fruit test

Exercises

1. Put each of the following appeals to authority into explicit form, and then assess its cogency.

   a) As pop diva Angie Dits recently said, 'Like, face it, dudes, global warming is, like, totally scientifically established—to the max'.

   b) God has told me that we should send all our money to Billy Swindell's TV ministry, so what are we waiting for?

   c) Dr. Hacking-Coff, a research scientist with the Canadian-American Tobacco Corporation, has said that smoking cigarettes causes you to live longer than you

otherwise would. So go ahead, light up!

d) Stephen Hawking, Lucasian Professor at Cambridge University, says that an event like the Big Bang could produce the structure of the universe as we observe it.[2]

2. For each pair of arguments, tell me which is the stronger appeal to authority, and tell me why it is stronger. You should refer to the questions presented in the chapter for assessing appeals to authority.[3]

a) Argument #1: According to my doctor, I should quit smoking.
Argument #2: According to the professional association of trial lawyers in our state, no-fault auto insurance is bad for people.[4]

b) Argument #1: Michael Jordan recommends Wheaties.
Argument #2: Michael Jordan recommends Nike Airs.

c) Argument #1: The Surgeon General says that smoking is hazardous to your health, so it must be.
Argument #2: The Surgeon General says that abortion is immoral, so it must be.

d) Argument #1: Organizers of the rally said that 120,000 people participated.
Argument #2: Police estimated the crowd at 30,000.

e) Argument #1: The dust jacket of this book quotes *Time* magazine calling it 'a real page-turner', so it must be really good.
Argument #2: My friend Herman doesn't like to read, but he really liked this book. I think it must be pretty good.

f) Argument #1: A highly-placed source within the administration, who spoke on condition of anonymity, indicated that Mr. Lance was under pressure from the President to resign from the cabinet. He must therefore be guilty of serious wrongdoing.
Argument #2: President Carter told reporters that he had asked Mr. Lance, who has been associated with Mr. Carter's political team for several years, to resign voluntarily. He must therefore be guilty of serious wrongdoing.

g) Argument #1: Albert Einstein once met my former boss while she was being taken for a stroll by her mother, and said she was a cute baby. She must have been pretty cute!
Argument #2: Albert Einstein once said that nuclear power would never be an

[2] This is the only exercise in this set in which I didn't invent fictitious people or positions. For evaluating it, you should know that the Lucasian chair at Cambridge is probably the most prestigious scientific position at any university in the world. (It was Sir Isaac Newton's chair.)
[3] See the Teacher's Manual for information on the source of some of these exercises.
[4] For this one, you need to know that no-fault insurance laws mean that trial lawyers get a lot less business.

economically feasible source of electricity, so it's time people gave up on trying to make it work.

h) Argument #1: My Information Systems professor says that he's planning to hide out at a secret location in the woods around January 1, 2000. The Y2K bug must be pretty serious. He seems really scared.[5]
Argument #2: Prof. Gram, who teaches Information Systems, says that the power of computers is likely to continue to increase rapidly for the foreseeable future.

[5] For this one, assume that it is now July, 1999—which is approximately when someone I worked with used this argument on me. You need to know that the Y2K bug was a problem that many people believed would cause millions of computers to malfunction when the date changed from December 31, 1999, to January 1, 2000. The claim was that this would lead to massive disruption in many countries.