Evidence is one of the essential elements of any argument. In fact, evidence serves as an argument’s foundation. Evidence can be thought of as the material support for a claim. The concept of evidence discussed here is very broad, and goes beyond direct quotations of facts, opinions, or other materials found in published sources. Evidence can include anything a debater learns while preparing for debate, such as material from classes, theories of social and personal behavior, theories drawn from physical and life sciences, presumptions of how people behave, as well as individual values, statements of value hierarchies, or categories of values to which people subscribe. Thus, facts, theories, presumptions, values, value hierarchies, and value categories are all considered types of evidence.¹

Chapter Outline

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¹ The category system adopted here closely follows Olbrechts-Tyteca, Lucie and Chaim Perelman, only making slight changes to the names of some of their categories to make them work better for common usage. Although changed substantially, the discussions in this chapter follow the author’s treatment of evidence in an earlier work called Discovering the World Through Debate: A practical guide to educational debate for debaters, coaches and judges. Robert Trapp, William Driscoll, Jurate Motiejunaite, and Joseph P. Zompetti. USA: IDEA Press, 2005.
Categories of Evidence

As the foundation of argument, evidence consists of two categories: those relating to reality and those relating to preference. Evidence relating to reality is about how things “really” are, whereas evidence related to preference is about how people would like things to be. Evidence relating to reality includes facts, theories, and presumptions. A fact is, as the name implies, an individual bit of data. Theories go beyond individual facts and offer explanations or predictions. Presumptions describe expectations about people or events. Evidence relating to preference includes values, hierarchies, and categories of what people find to be preferable. Values are statements showing preference for some concept. Hierarchies order values, and categories of values are classifications of values that frequently are called upon to support an argument. Those categories are briefly described in the following table:

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*Evidence Based on Reality*

As stated above, evidence based on reality consists of the kinds of information relating to how things “really” are. Evidence based on reality can consist of facts, theories, and presumptions, among other things.

*Facts.* Facts include observed or potentially observable data. Sometimes, the arguer directly observes facts, but in many cases, facts are reported to the arguer through a third party such as a professor, a journalist, or someone else who directly observed the fact. At other times, factual evidence may consist of a previously supported claim of description or definition, as noted in the previous chapter. Facts include things that people may come across during the course of their professional or day-to-day lives. For example, arguers may find facts during
day-to-day reading, observations made during classes, or reading specifically for preparation in debate. Debaters taking classes in history, sociology, or politics will learn all sorts of facts that they can use in debates. Debaters can also collect facts from reading a daily newspaper, a weekly news magazine, or various kinds of journals.

Different kinds of factual evidence are useful to support claims and motions. Some of those include direct observations, historical descriptions, examples and illustrations, statistics, and descriptions of empirical studies. Of course, this list does not begin to exhaust the kinds of facts available to debaters.

*Direct observation* is a very clear example of a fact and is often useful as evidence. Sometimes these kinds of facts are observed directly by the debater and sometimes they are reported from a third party. For instance, the observation that both giant and red pandas can be seen at the Chengdu Research Base of Giant Panda Breeding might be an observation made directly by a debater or it might be found using the Internet or library resources. In either case, this information constitutes a fact that might be used as partial support for an argument about the importance of protecting both kinds of pandas.

*Historical descriptions* present the details of past events to support arguments. Using historical evidence, debaters may lay out sequences of historical events to show how those events support their arguments. For instance, debaters wishing to make a claim that “by all rights, the Diaoyu Islands are a part of the People’s Republic of China” might point to an historical description. For instance, they might suggest that those islands were repeatedly referred to as a part of Chinese territory since 1534 (Seokwoo Lee) and later were controlled by the Qing Dynasty along with Taiwan. The relationship between the historical evidence and the subsequent claim might be diagramed as follows:

In that instance, the historical evidence provides support for the claim about the PRC’s legitimate entitlement to the disputed islands.

*Examples and illustrations* include specific instances that can support an argument. Using a series of examples to prove a general rule is called an argument by example. In most cases, people may not have access to every single specific case that would lend support to their claim. The argument by example seeks to provide support for a generalization. A generalization is a statement suggesting that the pattern visible in specific cases presented will also be visible in cases not presented. Thus, a generalization does not provide absolute proof of the claim; it merely makes a claim that is based on the presented examples.
For example, persons claiming that International Studies is an appropriate major for students seeking careers in Foreign Service do not base that claim on an examination of every single International Studies major to whom they refer. If they had such access, the question could be answered directly without the need to create an argument. Instead, an advocate may present several examples of International Studies majors who happen to be members of the Foreign Service, and then use those examples to support the claim that International Studies is an appropriate major for students seeking a career in the Foreign Service. Such an argument by example is illustrated in the following diagram:

Part of the persuasiveness of an argument by example is dependent on the number of examples provided and on the representativeness of those examples. For instance, a generalization based on very few examples may be just as unreliable as a generalization based on examples that are not representative. Thus, an arguer is well advised to present as many examples as he or she can, given the constraints of time, and to make sure that the
examples presented are representative of the population about which he or she wants to generalize.

Having provided examples to support an argument, a debater can then make the argument even more persuasive by providing a vivid illustration. Illustrations function differently than examples. Although illustrations alone may not speak to the certainty of an argument, they make an argument more vivid. Continuing with the last hypothetical situation, the debater might find a particularly well-known member of the Foreign Service who also was an International Studies major and use that story to make the claim more vivid. As a slightly different example, consider the claim that participation in debate is common for exceptional lawyers. An illustration might be thought of as a brief story to give added weight to the generalization. A debater might support this claim by finding several examples of exceptional lawyers who were also debaters, and then focusing on a specific person who has a background in both law and debate. For instance, a debater might present a brief story about Laurence H. Tribe, who was born in China to Russian-Jewish parents. He was the United States national debate champion in 1960, and has gone on to become the preeminent constitutional law authority in the United States, winning over 35 cases before the United States Supreme Court.2

An illustration may not provide logical support to an argument, because a single example does not provide sufficient support to make a generalization from one example to a general rule.3 An illustration enables the audience to “visualize” the point that the debater is making and, as a result, the claim becomes more vivid. Thus, examples and illustrations are complementary kinds of evidence: Sufficient and representative examples lend logical support to an argument and illustrations make the claim more vivid and persuasive.

Statistics are useful when a debater wants to make a generalization about some group of people or things. As in the case of argument by example, the debater does not have information about every individual in the group. A statistic starts with a description of a sample of the group, which allows the arguer to state that the sample probably is like the group as a whole. For instance, if 80% of the members of a debate team at a particular university are English majors, then the inference could be drawn (rightly or wrongly) that 80% of all collegiate debaters are English majors. In some cases, a statistic can be a persuasive form of factual evidence. Statistics, used properly, are especially powerful evidence in the hands of a skilled debater.

Any form of evidence can be misleading, and statistics are no exception. Debaters need to be wary about statistics and examine them closely to make sure that the claim supported by the statistics is a good one. For instance, statistics show that women taking hormone replacement therapy have a lower-than-average incidence of coronary heart disease. One interpretation of

3 More will be said about how to construct an adequate argument by example in Chapter 21 on fallacies.
this statistic is that hormone replacement therapy protects women against coronary heart disease. However, a closer look at the data on which the statistic is based also shows that women who received hormone replacement therapy were more likely to be from higher socio-economic groups with better-than-average diet and exercise regimens. Thus, the statistic supporting a relationship between hormone replacement therapy and coronary heart disease may be confounded by socio-economic status of the women in the statistical sample (Lawlor, Smith, and Ebrahim). This is just one example where statistics can be misinterpreted. The main point is that statistics do not interpret themselves. People interpret statistics and need to be careful to provide accurate and complete interpretations.

Descriptions of empirical studies generally include statistics associated with a number of variables. Empirical studies are sometimes more persuasive than “raw statistics” because they are based on underlying theoretical explanations as well as on figures.

For instance, Shijie Yang collected statistics about the effect of hukou reforms on the income gap between rural and urban workers. Collecting data in five provinces between 1999 and 2005, Shijie Yang found that the hukou reforms in those provinces had the opposite of the intended effect. The study concluded that the hukou reforms “actually caused the income gap between urban and rural citizens to become wider, instead of decreasing.”

That study gathered statistics about two variables: hukou reform, and the urban and rural income gap. The statistics were gathered systematically about each of the two variables and then were interpreted in a way that allows the researcher (and consumers of the research) to make a further statement about the relationship of the two variables. Well-conducted empirical studies are persuasive because of the systematic way evidence is gathered and interpreted. In the previous example, the authors began with an underlying theoretical position: that hukou reforms would decrease the income gap. The authors then systematically gathered evidence related to both variables and finally interpreted the statistical evidence as inconsistent with the theoretical position with which the study began. In this particular case, the statistician began with theoretical position, and the data gathered actually cast doubt on the original position. Like statistics, different people can interpret empirical studies in different ways. Debaters need to take care to cautiously and accurately interpret empirical studies.

Thus, observed data, examples illustrations, historical descriptions, statistics, and descriptions of empirical studies are included in the category called “facts.” Factual evidence of this kind, used well, can be quite persuasive in debate. Sometimes, a collection of facts is gathered together into a complex but coherent interpretation—a theory. The next category of evidence examines that idea of theory.

Theory. Theories are used to explain or predict and, thus, can be used as evidence in various cases. In scientific circles, theories are more important than “mere” facts. These theories are formalized statements seeking to predict physical and social phenomena with greater or lesser precision depending on the theory. For instance, formal theories like Albert Einstein’s
general and specific theories of relativity or Charles Darwin’s theory of evolution make predictions and explain phenomena.

But theories need not be that formal to be useful as evidence in argumentation and debate. For instance, debaters might use Samuel Peltzman’s theory of risk compensation to argue against the introduction of kinds of safety devices on automobiles. Peltzman’s theory, which grew out of a study in the mid-1970s about automobile regulation, has since become a much more general theory about risk compensation (Peltzman). In simple form, his theory asserts that, when governments issue safety regulations on things from automobiles to motorcycles to birth control devices, people who use those items engage in more risky behavior due to their perception that the safety concerns have been resolved.

Thus, the Peltzman theory could be used as evidence to argue against instituting more stringent seatbelt laws in China. The argument might go like this: seatbelt laws will make drivers feel safer; that feeling of safety will cause drivers to drive more recklessly, thus endangering pedestrians and cyclists. The following diagram provides a visual illustration of such an argument:

![Diagram of Peltzman Theory]

One of the reasons that theories are a persuasive category of evidence is that they offer apparently rational explanations for the relationships between and among facts. Contrary to popular opinion, facts do not speak for themselves. In the example presented above, someone might have noticed an increase in pedestrian deaths following the introduction of seatbelt laws, but might not be able to explain why the two phenomena were related. The theory provides just such an explanation. Furthermore, that explanation can then be generalized to other arenas that involve risk. So, a debater might use the theory to argue about related phenomena, such as sports helmets and speed limits.

Theories are important as evidence because they go beyond “mere” facts and provide seemingly sensible interpretations of the importance and meaning of the facts. Even
explanations that are not formal theories are frequently necessary complements to factual evidence.

*Presumptions.* Presumptions are a kind of evidence that does not necessarily describe reality, but describes how people expect reality to be. As such, presumptions are based on what people expect to happen in the ordinary course of events. Presumptions are based on facts, even though they are not facts themselves.

Presumptions can include assumptions about the nature of people in general, or about specific persons. They also can be about events expected to occur or not occur. For instance, we presume that, next winter, the weather in Guangxi will be warmer than the weather in Harbin. That presumption is not an observable fact because we cannot observe next winter’s weather today. However, the weather in Guangxi has been warmer for so many winters that we presume it will, again, be warmer next winter. We can use that presumption as evidence for a number of arguments, such as, where the family might vacation next December.

Sometimes, we make presumptions about a particular person based on our previous knowledge of that person or that person’s family characteristics. For instance, someone might argue that Wang Jingkai will become a public servant in China because many of his family members have done so. In this case, the presumption that a particular person will go into public service is based on a fact that other members of his family did just that.

The laws of many nations contain a concept called a “rebuttable presumption.” Those presumptions are “rebuttable” because a legal system has declared that the presumption stands until other evidence overcomes it. In the area of adoption law, for example, a rebuttable presumption “is used to ‘presume’ that, if a woman is married when she gives birth to a child, her husband is the father” (Rebuttable Presumption). Thus, when one sees a child accompanied by a married woman and her husband, that person might presume that the wife is the mother and the husband is the father. Although one can think of numerous reasons why the presumption might be incorrect, it is a presumption, nevertheless.

*Evidence Based on Preference*

Because presumptions are frequently as much about how things “ought” to be as about how they really are, presumptions blur the distinction between evidence pertaining to reality and evidence pertaining to preference. The next three categories however, provide examples of evidence that falls squarely in the category of evidence pertaining to preference.

*Values.* Values provide evaluations of objects, persons, ideas, institutions, etc. Any statement expressing something other than indifference about an object ⁴ is a statement of value. By

⁴ Actually, even indifference can in some cases be an expression of value—that something does not even merit discussion or consideration.
their nature, values are abstract, but can become more concrete when connected to an object to be evaluated. To argue that Ge is pretty or Jinkai is handsome is to attach a value of beauty to a human object. Although evidence is ordinarily thought of as factual, values also serve as evidence in argument.

Obvious examples of how debaters use values as evidence occur in arguments about individual or collective rights. For instance, the People’s Republic of China is currently engaged in an international argument about national sovereignty with regard to the Diaoyu islands. China rightly believes sovereignty to be an important national value and argues that Chinese sovereignty over the Diaoyu islands was never challenged for 400 years prior to 1895 when the islands were “stolen” by the Japanese. Therefore, the value of sovereignty might be used as evidence to support the claim that China should protect its claim to the Diaoyu islands. Because we do not ordinarily think of values as evidence in argumentation, perhaps a diagram of such an argument may help explain that category:

The example in the previous diagram shows how a value can be combined with a fact to provide evidence to support a claim. In that case, the value involves Chinese national sovereignty, and the fact is an historical example regarding Chinese sovereignty over the Diaoyu islands. Both of the two pieces of evidence are then combined to support a claim that “China is within its rights to assert its claim to the Diaoyu islands.” This example demonstrates that values can be important sources of evidence, especially in claims of evaluation.

One problem in using values as evidence is that sometimes audiences hold competing values related to a particular object. With regard to the previous illustration of the Diaoyu islands, some might also hold the value of peace as equally important to the value of sovereignty.
While sovereignty might be used to argue for the claim that China should assert its claim to these islands, the value of peace—in this case, peace with Japan—might mitigate against that claim. In situations where values such as sovereignty and peace collide, the more important type of evidence concerns value hierarchies.

**Value Hierarchies.** Value hierarchies order values and establish certain values as more important than others. Value hierarchies are important only when values collide. A person who could choose to act on both of two values would have no reason to order those two values hierarchically.

So, for instance, if a debater were to use a value hierarchy to argue about the Diaoyu islands, he or she might start with a value hierarchy that places national sovereignty higher than peace. The reason that one of those values is placed hierarchically over the other is because the two values might interfere with one another—especially in the case of the Diaoyu islands where people might not be able to achieve both values and thus would be forced to choose one over the other. Such an argument might be illustrated as follows:

![Value Hierarchy Diagram](image)

In the example above, the evidence consists of a value hierarchy that places sovereignty over peace. The evidence is then linked to the claim that the PRC should be willing to risk peace to protect its sovereignty. In a great number of debates, arguers find themselves faced with situations where their audiences favor two or more sets of values that seem to collide. In those situations, debaters must determine the proper hierarchy of values and use it as evidence for their positions.

**Value Categories.** Value hierarchies can be thought of as existing in different categories. Philosophers Perelman and Olbrechts-Tyteca sorted hierarchies into six categories: quantity, quality, order, existence, essence, and person (85 – 94). Some hierarchies simply are founded on the category of quantity. That category assumes that more is better than less, thus, more
money is higher on the hierarchy than less money. On the other hand, a person whose value hierarchies are organized according to quality probably will argue for something based on its uniqueness or irreplaceability. Therefore, according to the category of quality, the unique or rare is valued more than the common and replaceable. The dispute about global climate change can be used to illustrate the category of quality. The category of quality could be used to assert the importance of the irreplaceable (the environment) over the replaceable (the economy). A debater might use evidence consisting of quality to support a claim that protecting the environment is more important than sustaining the economy. A damaged economy can be restored, but a damaged environment is much more difficult to repair. Thus, the values associated with the environment are unique and irreplaceable. An example of such an argument using evidence from this value category is illustrated below:

Books about debating rarely treat the last three categories (values, value hierarchies, and value categories) as evidence. Nevertheless, they are important forms of evidence when debating propositions that require evaluation. In addition, because evaluation is central to argumentation and debate, those three categories are quite important.

Citing and Documenting Evidence

Before concluding this chapter about evidence, a few words about citing and documenting evidence are important. The claim, since the debater creates it, can be considered the creative
work of the debater. On the other hand, evidence usually does not consist of material created by the debater, but rather of material that is found using some formal or informal method of research. Thus, evidence is usually supporting material that is external to the debater; it is discovered rather than created. For that reason, the debater has an obligation to inform opposing debaters, judges, and audiences where the evidence was discovered. If the evidence consists of personal observations, the debater is obliged to let others know about the nature of those personal observations. If, as is frequently the case, the evidence was discovered by reading and surveying relevant publications on the subject, the debater is obliged to inform others where the evidence was found. How much detail should the debater report when citing the evidence? A good rule of thumb is that the debater should be prepared to provide sufficient detail that would allow the listener (or reader) to find the evidence on their own. The debater should be prepared to offer the name(s) of the author; the title of the book, magazine, or document from which the evidence was extracted; the title of the article in the book or magazine; the date of the article; and the pages on which the information appeared.

Most who listen to an oral argument do not expect to hear all of the citation for every piece of evidence, but they do expect that the debater would provide the complete citation if requested. So, a debater might say something like “According to a study conducted in 1975 by Professor Samuel Peltzman . . .” with the expectation that he or she would present the rest of the citation on request. In a written argument, the arguer needs to present the entire citation in the text. The difference between oral and written argument with regard to citing evidence is that a reader cannot always ask the arguer for a citation because the writer and reader may not be in the same physical location. On the other hand, speaker and listener are almost always physically together, so the need to present the entire citation orally is reduced. The important point about citing and documenting evidence is that the debater needs to present or at least be prepared to present enough information so that the listener can find the evidence using only the citation that the debater presents.

**Summary**

In summary, evidence is the starting point of any argument. Categories of evidence discussed in this chapter include facts, theories, presumptions, values, value hierarchies, and value categories. Much remains to be said about evidence in debate. How does the debater research evidence? How does the debater go about selecting evidence for an argument? How does a debater critique and evaluate the quality of evidence? We will consider those and other important questions later in this book.
Terms and Concepts From Chapter 16

- Facts
- Theories
- Presumptions
- Values
- Value hierarchies
- Value categories

Discussion Questions For Chapter 16

- How are facts and theories different from one another as kinds of evidence?
- How are examples and illustrations different from one another?
- How are statistics and empirical studies related to one another?
- What is the reason for asking debaters to document their evidence?

Exercise For Chapter 16:

Start with some claim discussed in Chapter 15 (Smoking should be banned in public places; a wireless city is desirable; in cases of divorce, custody should be granted to the mother) or some other claim that you think is interesting, and support the claim using at least three different kinds of evidence.