What is a Syllogism?

If we are to teach students how to present an argument in their writing, we would do well to show what an argument looks like, or, more importantly perhaps, be able to evaluate the arguments that students make. Enter the syllogism—a rhetorical device invented by Aristotle that sought to provide a rational means for evaluating argumentation. At its simplest level, a syllogism is a statement of deductive reasoning that consists of three parts: two premises and a conclusion. The conclusion follows necessarily from the two premises; if statement a (premise one) is true and statement b (premise two) is true, then it reasons that statement c (the conclusion) must be true as well. A classic example is such:

- All men are mortal.
- Shakespeare is a man.
- Shakespeare is a mortal.

It is important to note that syllogisms require two tests—one for validity, the other for truth. If the syllogism follows a proper form, it is said to be valid; if both the premises are true (in the sense that they present inarguable facts), then the conclusion must be true, which makes the syllogism itself true. If instead, the above example read “All men are mortal. Shakespeare is a man. Shakespeare is immortal,” then the statement would be valid (because it follows the valid form) but untrue (since men are not immortal); likewise, if the statement read, “All men are mortal. Shakespeare is a playwright. Shakespeare is mortal,” the syllogism would be true (since the premises are), but invalid because it violates form.

Syllogisms in the Classroom

If logic provides, as Patrick J. Hurley has said, “the skill needed to construct sound arguments of one’s own and to evaluate the arguments of others” (vii), then syllogisms supply useful examples for enacting these in the classroom. By focusing on the syllogistic pattern, the teacher can help students to learn the critical skills required for assessing the arguments of others. In this sense, the composition class acts as something of an introductory logic course in which students may examine academic writing (of peers or of scholars) to determine the validity and truthfulness of the arguments presented.

But syllogisms have a direct benefit for one’s own writing as well; it can provide students with a means for organizing papers and presenting arguments within them. The use of syllogisms in the deductive process may help the student define a problem and know where to begin; as Thomas W. Herzing writes, deductive reasoning provides a “set of controls” that help a student “determine what he can argue” and “how he must go about arguing a question” (italics in original) (99). Herzing further contends that the basic structure of the syllogism (if a and b then c) offers an organizational tool for the paper at-large. For this, however, the structure of the syllogism requires slight modification; the c statement serves as the thesis, presented at the beginning rather than end of the syllogism. The body of the paper then becomes an effort to establish and prove the truth of the thesis; the first half of the paper proving thesis a and the second half b, or vice versa (106-7). For more sophisticated arguments, the student may need to
prove a series of syllogisms in order to prove the guiding syllogism/thesis of the paper (108-10). Papers thus follow a logical organization, both taking out much of the guesswork in paper structuring and providing guidance to help curb the sprawling nature of much student writing.

Weaknesses

The syllogism represents but one form of logical reasoning, and is therefore not adequate for some arguments. The main shortcoming results when students must make inferences based upon empirical data in their arguments; such a cases require a different form of logic—inductive reasoning—with which the syllogism is incompatible. Furthermore, writing based solely upon syllogistic arguments tends toward the bland and simplistic; stylish variations upon the syllogism, such as the enthymeme (a shortened syllogism that implies, rather that explicates, one of the premises) exist that help writers break away from the formal syllogistic mode. As Herzing warns, “the benefits attached to deduction can assist the writer in his arguments,” but, one should not rely upon syllogisms as “inflexible rules which always produce good writing” (117). Syllogisms provide a tool, but one tool does not make for a well-stocked chest.

Still, syllogisms have supplied a rhetorical means of argument for over two millennia with little opposition to their abilities. Perhaps the greatest challenge presented to the syllogism has occurred in the writings of Stephan Toulmin. According to Richard Fulkerson, Toulmin developed his own model of argumentation by questioning the test of validity; most arguments, Toulmin posits, follow from premises “with probability,” and while they may not be valid, still “achieve ‘proof’ in their real-world contexts” (47). Toulmin’s method offers an alternative to deductive reasoning and the syllogism, but (and putting aside the theoretical issues involved) it does not necessarily provide a superior method for teaching and analyzing argument in the classroom. The Toulmin Model is another tool, but not one that automatically displaces the use of the syllogism in composition courses.

CLASS HANDOUT

In each example below, first, identify and underline the premises and conclusions of each syllogism, ignoring the words and statements that are not part of the syllogism. Next test for validity. Then, test for truth. If the syllogism is invalid or untruthful, rewrite it so that it is both valid and truthful.

1) I have noticed these days that some cats are betrothed, ready to marry and spend their lives with another fabulous feline. As you probably know, all betrothed are happy. Which is great, because that must mean that some cats are happy, while the others, well, let’s just hope they find someone to marry as well.

2) Technology has provided the world with great opportunities, unthinkable a generation ago. While before, one had to be literate to read, now all books are on tape and can be listened to while driving or sitting on the couch. While one used to go the theater to catch the latest Hollywood production, now one can stay at home because even some
movies are on tape. In fact, one no longer has to choose between reading and watching, because all books must be movies since they are both on tape.

3) Although he has been dead for fifty years, some people still study Einstein. This may seem like a strange fact in our temporal society, but it is true. Some of the people who study Einstein are physicists, much like Einstein was; because he remains an important figure in physics, all physicists must study him. But for the rest of us, he may remain little more than a marketed image, as all those posters of him sticking his tongue out that we have stuck onto our dorm room walls show.

Annotated Bibliography


Barnet and Bedau’s anthology provides various readings and instructions on different forms of argumentation. They give detailed synopses on both deductive reasoning/syllogisms (298-309) and the Toulmin Model (289-97). The information on the Toulmin Model is more comprehensive, but their study of deduction offers a decent introduction to the topic.


Corbett’s textbook presents a collection of rhetorical tools and methods for students to use in writing. His analysis of the syllogism is detailed, but seems oriented more for the logician than the student writer (56-72). Still, for those wishing for firm grasp on the syllogism, Corbett is more than appropriate.


Fulkerson’s article provides an introduction to both the Toulmin Model and the controversy surrounding its reception. Included is a discussion of how to adapt the model for classroom use and student writing.


Herzing argues for the importance of rational discourse in the composition class. Although he provides clear definitions and examples of logical reasoning, he relates all the material back to the student-writer. He covers the syllogism, like most of the concepts in the text, briefly (82-94), but makes up for the brevity by showcasing its relevance to composition.


Hurley presents a primer on logic in a textbook form most suitable for an introductory logic course. He offers detailed explanations of logical concepts, along with several exercises in each chapter. Perhaps a better resource for the teacher than the student, it allows for the understanding of syllogisms and deductive reasoning needed to convey the concepts to students.