

Logic Reading 2.02b Mnemonic Names of Valid Syllogisms

"They may attack me with an army of six hundred syllogisms: and if I do not recant, they will proclaim me a heretic."

-Desiderius Erasmus

_____ **Introduction.** In the Reading 2.01 and 2.02, we discussed the four ways a syllogism can be formed according to the disposition of terms. These four ways we called a syllogism's *figure* and then we learned about *mood*. These are linked together in the analysis of standard form categorical arguments. In this reading, we will learn about the classical names for the valid syllogisms.

To advance the mastery of syllogistics, classical logicians gave a unique name to every valid syllogism, each characterized completely by mood and figure. Understanding this small set of valid forms, and knowing the name of each, is very useful when putting syllogistic reasoning to work. Each name, carefully devised, contained three vowels representing (in standard-form order: major premise, minor premise, conclusion) the mood of the syllogism named.

_____ **The Names and their construction**

William of Shyreswood, a medieval philosopher, came up with names to help remember these syllogisms and put them into a mnemonic verse. You will need to memorize these lines in order to know how to do some logical operations in later chapters. The lines are as follows:

BARBARA, CELARENT, DARII, FERIOque prioris;
CESARE, CAMESTRES, FESTINO, BAROCO secundae;
Tertia; DARAPTI, DISAMIS, DATISI, FELAPTON, BOCARDO, FERISON habet;
quarta insuper addit; BRAMANTIP, CAMENES, DIMARIS, FESAPO, FRESISON.

Note that FERIOque is Latin for "and FERIO," and that the *que* attached on the end is not really a part of the word.

Both the vowels and the consonants in these names represent important things about each syllogism. Let us content ourselves in this reading to discuss what is indicated by the vowels.

We label a syllogism **BARBARA** if the first premise is an A statement (the first **A** in BARBARA), and the second premise is an A statement (the second **A** in BARBARA). The last vowel (A) stands for the conclusion (the last **A** in BARBARA).

Remember that the first vowel always indicates the first (or major) premise; the second always indicates the second (or minor) premise; and the final vowel always indicates the conclusion.

What the above lines mean is that BARBARA, CELARENT, DARII, and FERIO are the four valid moods in the First Figure (*prioris* means *of the first* in Latin). CESARE, CAMESTRES, FESTINO and BAROCO are the valid moods in the Second Figure (*secundae* means *of the second* in Latin); DARAPTI, DISAMIS, DATISI, FELAPTON, BOCARDO and FERISON are the valid moods of the Third

Figure (*tertia* means *third* in Latin); and BRAMANTIP, CAMENES, DIMARIS, FESAPO and FRESISON are the valid moods in the Fourth Figure (*quarta* means fourth in Latin). This makes 19 in all.

Of these 19, however, only about five are commonly encountered in actual argument. We will be discussing all 19 of these arguments in later readings, but for now, let's take a look at the five common valid syllogisms.

_____ **How to Use the Mnemonic.** The mnemonic (BARBARA, CELARENT, DARII, etc.) gives us a much quicker way to determine the validity of a syllogism than using the seven rules for validity. When we are presented with an argument, we simply put it in the form of a syllogism and see if it is one of the syllogisms in the mnemonic. If it is, then it is valid; if it is not, then it is invalid. There are three steps involved:

Step # 1 : Determine the figure

Step #2: Determine the mood

Step #3: Determine whether the mood is included in the mnemonic verse.

_____ **Five common syllogisms.** The following are the five most commonly encountered syllogisms:

BARBARA
CELARENT
CESARE
CAMESTRES
CAMENES

An example of BARBARA (which is *sub-prae* or First Figure) would be:

All flowers are plants. (A)

All roses are flowers (A)

Therefore, all roses are plants. (A)

An example of CELARENT (First Figure) would be:

No flowers are trees. (E)

All roses are flowers. (A)

Therefore, no roses are trees. (E)

An example of CESARE (a Second Figure or *prae-prae* syllogism) would be:

No trees are flowers. (E)

All roses are flowers. (A)

Therefore , no roses are trees. (E)

An example of CAMESTRES (Second Figure) would be:

All roses are flowers. (A)

No trees are flowers. (E)

Therefore , no trees are roses. (E)

An example of CAMENES (a Fourth Figure, or *prae-sub*, syllogism) would be:

All roses are flowers. (A)

No flowers are trees. (E)

Therefore, no trees are roses. (E)

Note also that the final letter is important in determining the syllogism's validity, although it does not determine the mood.

_____ **Summary.** This reading (2.02 and 2.02b) concerns the **mood** of syllogisms. The mood of a syllogism is defined as **the disposition of the premises according to quantity and quality** There are sixteen moods per figure. Since there are four figures, that means there are 64 moods in all. Of these moods, only 19 are valid.

William of Shyreswood came up with names to help remember the valid syllogisms in a mnemonic verse. The verse is as follows:

BARBARA, CELARENT, DARII, FERIOque prioris;
CESARE, CAMESTRES, FESTINO, BAROCO secundae;
Tertia; DARAPTI, DISAMIS, DATISI, FELAPTON, BOCARDO, FERISON habet;
quarta insuper addit; BRAMANTIP, CAMENES, DIMARIS, FESAPO, FRESISON.

The vowels in each of these names indicate the mood of the syllogism by indicating whether each proposition in the syllogism is an A, I, E or O statement.

Of the 19 valid syllogisms, only five are commonly encountered in actual argument. The five common syllogisms are as follows:

BARBARA
CELARENT
CESARE
CAMESTRES
CAMENES