Fallacies of Ambiguity

These fallacies typically occur in an argument using ambiguous words or phrases, whose meaning shifts and changes (to various degrees of subtlety) during the course of the argument. We consider 4 common types of such fallacies.

1. Equivocation.

Definition. Equivocation is the use of expressions of double meaning in order to mislead.

Examples.

The end justifies the means.
Death is the end of life.
Therefore, one’s death justifies the means of life.

Here the word “end” is used in two ways: (1) as a goal and (2) as the last event.

Some arguments get pretty absurd, as the following example shows:

God is Love.
Love is blind.
Ray Charles is blind.
Therefore, Ray Charles is God.

Christopher Robin gave a deep sigh, picked his Bear up by the leg, and walked off to the door, trailing Pooh behind him. – A. A. Milne

Consider the argument:

An elephant is an animal.
Therefore, a gray elephant is a gray animal.

No problem here. Now consider the argument:

An elephant is an animal.
Therefore, a small elephant is a small animal.

Big problem here. Small elephants are no doubt still pretty big creatures. The equivocation hinges on the word “small,” which is a relative term. “Small” for an elephant is not the same as “small” for an animal. “Gray,” on the other hand, is not a relative term.

2. Grammatical Construction.

Definition. An unclear statement because of the loose or awkward way its words are combined.
Examples.

The statement

I like mathematics more than my wife.

has dangerous implications for a married mathematician.

Interpretation Number 1: I like math more than my wife likes math.

Interpretation Number 2: I like math more than I like my wife.

How many cents will you have if you take 7 cents from a dollar?

Save soap and waste paper.

Take my wife—please. — Henny Youngman. (Maybe Henny liked jokes more than his wife.)

There goes a horse with a buggy behind.

3. Composition.

Definition. Applying properties of parts of a whole to the whole itself.

Examples.

Since every part of a sewing machine is light in weight, it follows that a sewing machine is light in weight.

A bus uses more gas than a car. Therefore, buses as a whole use more gas than cars.

If every ship is ready for battle, then so is the fleet.

Since every scene of the play is a model of artistic perfection, so is the play itself.
4. Division.

The reverse of composition.

*Definition.* What is true for the whole is true of its parts.

*Examples.*

Northern Illinois University is a very important institution. Prof. Blecksmith is on the faculty of NIU. Therefore, Prof. Blecksmith is very important.

Consider the argument:

Dogs are carnivores.
Japanese spaniels are dogs.
Therefore, Japanese spaniels are carnivores.

No problem here. Now what about:

Dogs are common.
Japanese spaniels are dogs.
Therefore, Japanese spaniels are common.

It is true that dogs, collectively, are common, but to infer that a certain breed of dog is common commits the fallacy of division.