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From syllogism to common sense . . .

Exercise Sheet 1: Categorical Propositions

To be discussed on 17 November 2011

1. For each of the following propositions, name their subject and predicate term, name quality and quantity, and state whether their subject and predicate terms are distributed.

a) Some members of the military-industrial complex are mild-mannered people to whom violence is abhorrent.

b) No leader of the feminist movement is a major business executive.

c) Some advocates of major political, social, and economic reforms are not responsible people who have a stake in maintaining the status quo.

d) All new labour-saving devices are major threats to the trade union movement.

2. If "All socialists are pacifists" is true, what other propositions relating (non-)socialists with (non-)pacifists can be inferred to be true or false? Find at least seven such propositions by applying any of the simple inference mechanisms exhaustively. Find one proposition whose truth value is undetermined. Mark Aristotelian-only inferences.

Example: "Some pacifists are socialists" can be inferred via conversion by limitation, but only under the Aristotelian interpretation.

3. Rewrite each of the following syllogisms in standard form, and name its mood and figure. To identify all relevant parts, you can proceed as follows.

(1) Identify the conclusion.

(2) Identify major and minor term.

(3) Identify major and minor premise.

(4) Check whether both premises share one middle term.

Argue intuitively whether the resulting std.-form syllogism is valid or not.

a) Some evergreens are objects of worship, because all fir trees are evergreens, and some objects of worship are fir trees.

b) No stubborn individuals who never admit a mistake are good teachers, so, since some well-informed people are stubborn individuals who never admit a mistake, some good teachers are not well-informed people.

c) All proteins are organic compounds, hence all enzymes are proteins, as all enzymes are organic compounds.