

SYLLOGISTIC AND NON-SYLLLOGISTIC ASPECTS OF THE
COMPARATIVE ARGUMENT

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The proposition 'X is less than Y' possesses a duality of meaning which makes for confusion within the comparative argument when the purpose is to distinguish the syllogistic from the non-syllogistic forms. This is evidenced by textbook writers who list comparative arguments under the caption 'irregular arguments' without mention of the fact that such arguments may as often be regular and syllogistic as irregular and non-syllogistic.

Consider the above proposition 'X is less than Y'.

(1) It may be taken to mean that X is an object or a magnitude which as such is less than the object or magnitude Y. Thus, this hill is less than (smaller than) this mountain or four inches is less than five inches.

Or,

(2) 'X is less than Y' may be taken to mean that X belongs to the class of all objects less than Y. The latter is as legitimate as the former though seldom, if ever, meant.

Because, as far as we know, Aristotle did not consider the matter of more-than and less-than and the later logicians, Noah K. Davis, in particular, refer to 'Formal Logic' by Augustus De Morgan as if standard in dealing with 'more than' and 'less than' arguments, we shall use the latter's form which is that of 'less-than' instead of the more usual 'greater than' relation of subject to predicate. De Morgan uses the following example*:

$$\begin{array}{l} X \text{ is less than } Y \\ Y \text{ is less than } Z \\ \text{Therefore, } X \text{ is less than } Z \end{array}$$

**Formal Logic*, Augustus De Morgan, pp. 20-22.