Book 7: Chapter 1

Soritieses.

Introductory

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When a Set of three or more Biliteral Propositions are sush that all their Terms are Species of the same Genus, and are also so related that two of them, taken together, yield a Conclusion, which, take with another of them, yields another Conclusion, and so on, until all have been taken, it is evident that, if the original Set were true, the last Conclusion would also be true.

Such a Set, with the last Conclusion tacked on, is called a 'Sorites'; the original Set of Propositions is called its 'Premisses'; each of the intermediate Conclusions is called a 'Partial Conclusion' of the Sorites; the last Conclusion is called its 'Complete Conclusion,' or, more briefly, its 'Con- clusion'; the Genus, of which all the Terms are Species, is called its "Universe of Discourse', or, more briefly, its 'Univ.'; the Terms, used as Eliminands in the Syllogisms, are called its 'Eliminands'; and the two Terms, which are retained, and therefore appear in the Conclusion, are called its 'Retinends'.

[Note that each Partial Conclusion contains one or two Eliminands; but that the Complete Conclusion contains Retinends only.]

The Conclusion is said to be 'consequent' from the Premisses; for which reason it is usual to prefix to it the word "There- fore" (or the symbol "..").

[Note that the question, whether the Conclusion is or is not consequent from the Premisses, is not affected by the actual truth or falsity of any one of the Propositions which make up the Sorites, by depends entirely on their relationship to one another.

As a specimen-Sorites, let us take the following Set of 5 Propositions:-

(1) "No a are b';
(2) All b are c;

(3) All c are d;
(4) No e' are a';
(5) All h are e'".

Here the first and second, taken together, yield "No a are c'"

This, taken along with the third, yields "No a are d'".

This, taken along with the fourth, yields "No d' are e'".

And this, taken along with the fifth, yields "All h are d".

Hence, if the original Set were true, this would also be true.

Hence the original Set, with this tacked on, is a Sorites; the original Set is its Premisses; the Proposition "All h are d" is its Conclusion; the Terms a, b, c, e are its Eliminands; and the Terms d and h are its Retinends.

Hence we may write the whole Sorites thus:-

"No a are b';
All b are c;
All c are d;
No e' are a';
All h are e'.
.*. All h are d".

In the above Sorites, the 3 Partial Conclusions are the Pro- positions "No a are e'", "No a are d'", "No d' are e'"; but, if the Premisses were arranged in other ways, other Partial Conclusions might be obtained. Thus, the order 41523 yields the Partial Conclusions "No c' are b'", "All h are b", "All h are c". There are altogether nine Partial Conclusions to this Sorites, which the Reader will find it an interesting task to make out for himself.]