

CHAPTER IV.

Of Conversion.

Section 479. Conversion is an immediate inference grounded On the transposition of the subject and predicate of a proposition.

Section 480. In this form of inference the antecedent is technically known as the Convertend, i.e. the proposition to be converted, and the consequent as the Converse, i.e. the proposition which has been converted.

Section 481. In a loose sense of the term we may be said to have converted a proposition when we have merely transposed the subject and predicate, when, for instance, we turn the proposition 'All A is B' into 'All B is A' or 'Some A is not B' into 'Some B is not A.' But these propositions plainly do not follow from the former ones, and it is only with conversion as a form of inference--with Illative Conversion as it is called--that Logic is concerned.

Section 482. For conversion as a form of inference two rules have been laid down--

(1) No term must be distributed in the converse which was not distributed in the convertend.

(2) The quality of the converse must be the same as that of the convertend.

Section 483. The first of these rules is founded on the nature of things. A violation of it involves the fallacy of arguing from part of a term to the whole.

Section 484. The second rule is merely a conventional one. We may make a valid inference in defiance of it: but such an inference will be seen presently to involve something more than mere conversion.

Section 485. There are two kinds of conversion--

(1) Simple.

(2) Per Accidens or by Limitation.

Section 486. We are said to have simply converted a proposition when the quantity remains the same as before.

Section 487. We are said to have converted a proposition per accidens, or by limitation, when the rules for the distribution of terms necessitate a reduction in the original quantity of the proposition.

Section 488.

A can only be converted per accidens.

E and I can be converted simply.

O cannot be converted at all.

Section 489. The reason why A can only be converted per accidens is that, being affirmative, its predicate is undistributed (Section 293). Since 'All A is B' does not mean more than 'All A is some B,' its proper converse is 'Some B is A.' For, if we endeavoured to elicit the inference, 'All B is A,' we should be distributing the term B in the converse, which was not distributed in the convertend. Hence we should be involved in the fallacy of arguing from the part to the whole. Because 'All doctors are men' it by no means follows that 'All men are doctors.'

Section 499. E and I admit of simple conversion, because the quantity of the subject and predicate is alike in each, both subject and predicate being distributed in E and undistributed in I.

/ No A is B.
E <
\\'. No B is A.

/ Some A is B.
I <
\\'. Some B is A.

Section 491. The reason why O cannot be converted at all is that its subject is undistributed and that the proposition is negative. Now, when the proposition is converted, what was the subject becomes the predicate, and, as the proposition must still be negative, the former subject would now be distributed, since every negative proposition distributes its predicate. Hence we should necessarily have a term distributed in the converse which was not distributed in the convertend. From 'Some men are not doctors,' it plainly does not follow that 'Some doctors are not men'; and, generally from 'Some A is not B' it cannot be inferred that 'Some B is not A,' since the proposition 'Some A is not B' admits of the interpretation that B is wholly contained in A.

[Illustration]

Section 492. It may often happen as a matter of fact that in some given matter a proposition of the form 'All B is A' is true simultaneously with 'All A is B.' Thus it is as true to say that 'All equiangular triangles are equilateral' as that 'All equilateral triangles are equiangular.' Nevertheless we are not logically warranted in inferring the one from the other. Each has to be established on its separate evidence.

Section 493. On the theory of the quantified predicate the difference between simple conversion and conversion by limitation disappears. For the quantity of a proposition is then no longer determined solely by reference to the quantity of its subject. 'All A is some B' is of no greater quantity than 'Some B is all A,' if both subject and predicate have an equal claim to be considered.

Section 494. Some propositions occur in ordinary language in which the quantity of the predicate is determined. This is especially the case when the subject is a singular term. Such propositions admit of conversion by a mere transposition of their subject and predicate, even though they fall under the form of the A proposition, e.g.

Virtue is the condition of happiness.
∴ The condition of happiness is virtue.

And again,

Virtue is a condition of happiness.
∴ A condition of happiness is virtue.

In the one case the quantity of the predicate is determined by the form of the expression as distributed, in the other as undistributed.

Section 495. Conversion offers a good illustration of the principle on which we have before insisted, namely, that in the ordinary form of proposition the subject is used in extension and the predicate in intension. For when by conversion we change the predicate into the subject, we are often obliged to attach a noun substantive to the predicate, in order that it may be taken in extension, instead of, as before, in intension, e.g.

Some mothers are unkind.
∴ Some unkind persons are mothers.

Again,

Virtue is conducive to happiness.

∴ One of the things which are conducive to happiness is virtue.