

CHAPTER V.

Of Permutation.

Section 496. Permutation [Footnote: Called by some writers Obversion.] is an immediate inference grounded on a change of quality in a proposition and a change of the predicate into its contradictory-term.

Section 497. In less technical language we may say that permutation is expressing negatively what was expressed affirmatively and vice versâ.

Section 498. Permutation is equally applicable to all the four forms of proposition.

(A) All A is B.
∴ No A is not-B (E).

(E) No A is B.
∴ All A is not-B (A).

(I) Some A is B.
∴ Some A is not not-B (O).

(O) Some A is not B.
∴ Some A is not-B (I).

Section 499, Or, to take concrete examples--

(A) All men are fallible.
∴ No men are not-fallible (E).

(E) No men are perfect.
∴ All men are not-perfect (A).

(I) Some poets are logical.
∴ Some poets are not not-logical (O).

(O) Some islands are not inhabited.
∴ Some islands are not-inhabited (I).

Section 500. The validity of permutation rests on the principle of excluded middle, namely--That one or other of a pair of contradictory terms must be applicable to a given subject, so that, when one may be predicated affirmatively, the other may be predicated negatively, and vice versâ (Section 31).

Section 501. Merely to alter the quality of a proposition would of course affect its meaning; but when the predicate is at the same time changed into its contradictory term, the original meaning of the proposition is retained, whilst the form alone is altered. Hence we may lay down the following practical rule for permutation--

Change the quality of the proposition and change the predicate into its contradictory term.

Section 502. The law of excluded middle holds only with regard to contradictories. It is not true of a pair of positive and privative terms, that one or other of them must be applicable to any given subject. For the subject may happen to fall wholly outside the sphere to which such a pair of terms is limited. But since the fact of a term being applied is a sufficient indication of its applicability, and since within a given sphere positive and privative terms are as mutually destructive as contradictories, we may in all cases substitute the privative for the negative term in immediate inference by permutation, which will bring the inferred proposition more into conformity with the ordinary usage of language. Thus the concrete instances given above will appear as follows--

(A) All men are fallible.

∴ No men are infallible (E).

(E) No men are perfect.

∴ All men are imperfect (A).

(I) Some poets are logical.

∴ Some poets are not illogical (O).

(O) Some islands are not inhabited.

∴ Some islands are uninhabited (I).