

CHAPTER XXV.

The Disjunctive Syllogism regarded as an Immediate Inference.

Section 770. If no stress be laid on the transition from disjunctive hypothesis to fact, the disjunctive syllogism will run with the same facility as its predecessor into the moulds of immediate inference.

Section 771.

Denial of Antecedent. Subalternation.

Either A is B or C is D, Every case of A not being B
 is a case of C being D.
∴ A not being B, C is D. ∴ Some case of A not being B
 is a case of C being D.

Section 772.

Denial of Consequent. Conversion by Contraposition
 + Subalternation.

Either A is B or C is D. All cases of A not being B
 are cases of C being D.
∴ C not being D, A is B ∴ All cases of C not being D are
 cases of A being B.
 ∴ Some case of C not being D is
 a case of A being B.

Section 773. Similarly the two invalid types of disjunctive syllogism will be found to coincide with fallacies of immediate inference.

Section 774.

Affirmation of Antecedent. Contraposition without
 Conversion.

Either A is B or C is D. All cases of A not being B are
 cases of C being D.
∴ A being B, C is not D ∴ All cases of A being B are
 cases of C not being D.

Section 775. The affirmation of the antecedent thus comes under the formula--

All not-A is B,
∴ All A is not-B,

a form of inference which cannot hold except where A and B are known to be incompatible. Who, for instance, would assent to this?--

All non-boating men play cricket.
∴ All boating men are non-cricketers.

Section 776.

Affirmation of Consequent. Simple Conversion of A.

Either A is B or C is D. All cases of A not being B are
cases of C being D.
∴ C being D, A is not B. ∴ All cases of C being D are
cases of A not being B.

Section 777. We may however argue in this way--

Conversion of A per accidens.
Either A is B or C is D. All cases of A not being B
are cases of C being D.
∴ C being D, A is sometimes B. ∴ Some cases of C being D are
cases of A not being B.

The men who pass this examination must have either talent or industry.
∴ Granting that they are industrious, they may be without talent.