Glossary

Analogy : a form of induction involving inference from known resemblances to further resemblances.

Argument : a group of propositions in which one proposition is accepted on the evidence of the remaining ones.

Argumentum ad baculum : the non-formal fallacy in which there is appeal to force.

Argumentum ad hominem : the non-formal fallacy which involves personal attack.

Argumentum ad ignoratiam : the non-formal fallacy in which a statement is taken to be proved, because its opposite cannot be disproved.

Argumentum ad misericordiam : the non-formal fallacy in which there is appeal to pity.

Argumentum ad populum : the non-formal fallacy in which there is appeal to emotions.

Argumentum ad verecundiam : the non-formal fallacy which involves appeal to improper authority.

Binary connective (operator) : a propositional connective which connects two propositions.

Complement of a class : the class of all objects that do not belong to it,

Compound proposition : a proposition which contains another proposition (or propositions) as a component.

Conclusion : in an argument, the statement which is derived from the premises.

Conjunctive proposition : a compound proposition formed by combining any two propositions with the truth-functional connective "and".

Conjunctive truth function : truth-function which is true only when both the components are true.

Contingency : a truth-functional form which is true under some truth possibilities of its components, and false under other truth possibilities.

Contradiction : a truth-functional propositional form which is false under all truth possibilities of its components.

Contradictory function : another name for negation, its truth-value being the opposite of the truth value of the component proposition.

Converse fallacy of accident : the non-formal fallacy in which we point to a special case to assert a general statement.

Decision procedure : a method for deciding whether an object belongs to a certain class.

Deductive proof : a proof of the validity of an argument in which the conclusion is deducted from the premises by a sequence of (valid) elementary arguments.

Deductive argument : an argument in which the premises claim to provide sufficient evidence for the conclusion.

Direct deductive proof : the deductive proof in which the conclusion is deduced from the premises, by a sequence of (valid) elementary arguments.

Disjunctive proposition : a compound proposition in which the word "or" combines two propositions.

Disjunctive function : the truth function which is false only if both the components are false.

Dyadic connective (Operator) : a propositional connective which connects two propositions.

Equivalence : the propositional connective which is true when both its components have the same truth value.

Equivalent proposition : a compound proposition in which two component propositions materially imply each other.

Fallacy : an error in reasoning in which the argument appears to establish a conclusion, but does not really do so.

Fallacy of Accident : a non-formal fallacy in which what is true in general is considered to be true in a special case, or what is true under

normal circumstances is taken to be true under special (or exceptional) circumstances.

Fallacy of Composition : a non-formal fallacy in which it is argued that a quality which is possessed by a member (or members) is also possessed by the group, or that quality which is possessed by a part (or parts) is also possessed by the whole.

Fallacy of Division : a non-formal fallacy in which it is argued that what is true of a group is true of its members or that what is true of a whole is true of its parts.

Fallacy of ignoratio elenchi : a group of non-formal fallacies in which the argument is irrelevant.

Formal fallacy : a fallacy which arises due to the violation of a rule of logic.

Implicative function : the truth function which is false if and only if the antecedent is true and the consequent is false.

Implicative proposition : a compound propositions which is formed by combining any two propositions with the truth-functional connective "if.. then..."

Inference : the process of reasoning in which the conclusion is drawn from the evidence.

Inductive arguments : an argument in which the premises provide "some" evidence for the conclusion, but the evidence is not sufficient.

Induction per simple enumeration : a generalization in which it is argued that what is true of several instances of a kind is true universally of that kind.

Monadic connective (operator) : a proposition connective which operates on one proposition.

Negation : the propositional connective "~".

Negative proposition : a compound proposition obtained by denying a proposition.

Non-formal fallacy : a fallacy which arises either when words are used ambiguously or when some relevant feature of the argument is ignored.

Premise : in an argument, the proposition from which the conclusion is drawn.

Proposition : a statement which is either true or false

Propositional connective : an expression which connects propositions. The symbols for the five propositional connectives are "~", ".", "v", "⊃" and "≡".

Propositional constant : a symbol which stands for a specific proposition.

Propositional variable : a symbol which stands for any proposition whatsoever.

Scientific induction : the process of establishing a general statement which is supported by both direct and indirect evidence.

Simple proposition : a proposition which does not contain any other proposition as a component.

Sound argument : a valid argument whose conclusion is a true proposition.

Tautology : a truth-functional propositional form which is true under all truth possibilities of its components.

Truth-functional connective (operator) : another name for propositional connective.

Truth-functionally compound proposition : a compound proposition whose truth value is determined by the truth value of its component proposition (or propositions).

Truth-table : a tabular way of expressing the truth values of expressions containing propositional connective.

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हिंदी

- केदारनाथ तिवारी – निगमन तर्कशास्त्र
- अशोककुमार वर्मा – सरल निगमन तर्कशास्त्र