Abstract

Invited Session: Historical Aspects of Logic

Intensional logic before Leibniz
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The paper brings together two bodies of recent work on the history of intensional logic.

Klaus Glashoff’s papers on Leibniz’s intensional logics analyse intensional categorical propositions as stating relations of inclusion or exclusion between classes of intensions. Leibniz takes for granted that intensions are uniquely resolvable into sets of simple conceptions. It is this assumption that makes possible his representation of intensional propositions by means of pairs of ‘characteristic numbers’.

Recent research on medieval Arabic logic by Asadollah Falahi and by the present author focuses on a distinction (introduced by Rāzī d.1210)between extensional (khārījī) and intensional (ḥaqīqī) readings of categorical propositions. On the intensional reading, the proposition’s truth depends solely on relations of inseparability or incompatibility between conceptions. Logicians who followed this approach were not concerned to give a mathematical representation of intensional propositions; their motivation came rather from features of the genus-species relation in Aristotelian ontology.

The paper explores the similarities as well as the differences between the medieval Arabic and the Leibnitiana approaches. Consideration will be given to the following questions:

1. What are the logical relations hold between intensional and extensional propositions sharing the same terms?
2. Does an intensional logic need to postulate essences?
3. Does an intensional logic need to postulate special axioms regarding the structuring of sets of essences?

Falahi 2013. Asadollah Falahi, The Logic of Al-Khūnajī (Teheran: Iranian Institute of Philosophy)