Abstract:

Charles S. Peirce suggested that a formal distinction between his three types of argumentation, deduction, induction, and retroduction, could be drawn using syllogistic figures. However, he never developed the concept of formal validity for non-deductive arguments beyond that point. His failure to do so may have been due in part to inadequacies in the theory of syllogisms as it was known at the time. Using an expanded syllogistic, with quantifiers between 'all' and 'some', this paper shows that it is possible to derive distinct groups of deductive, inductive, and retroductive syllogisms.