

1054-01-17

Francine F. Abeles* (fabeles@kean.edu), 1000 Morris Avenue, Union, NJ 07083. *Hugh MacColl and Charles L. Dodgson on Axioms and Non-Euclidean Geometry*. Preliminary report.

Hugh MacColl (1837-1909), who initiated the modern history of modal logic and Charles L. Dodgson (1832-1898), the unswerving supporter of Euclid's Elements for teaching purposes communicated indirectly about Dodgson's axiom, a closed form equivalent to Euclid's parallel postulate in his book, *Curiosa Mathematica*. Part I. A New Theory of Parallels, through the pages of *The Athenaeum* where MacColl critically reviewed the several editions of this book. In this paper, I will describe Dodgson's responses to MacColl and the changes he made in subsequent editions of his book in response to MacColl's comments which reflect their different ideas about the nature of axioms, and their generally negative opinions about the non-Euclidean geometries. (Received July 28, 2009)