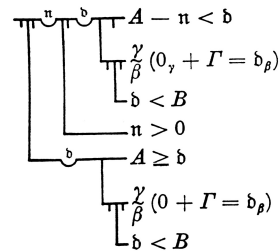
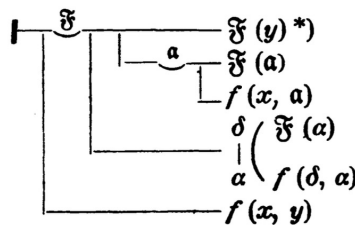
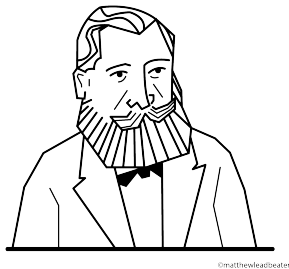


Frege's Begriffsschrift notation: Design principles and trade-offs

by

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Abstract

Well over a century after its introduction, Frege's two-dimensional Begriffsschrift notation is still considered mainly a curiosity that stands out more for its clumsiness than anything else. This talk focuses mainly on the propositional fragment of the Begriffsschrift, because it embodies the characteristic features that distinguish it from other expressively equivalent notations. I argue for the perspicuity and readability of the Begriffsschrift by discussing several idiosyncrasies of the notation, which allow an easy conversion of logically equivalent formulas, and presenting the notation's close connection to syntax trees. Moreover, Frege's considerations regarding the design principles underlying the Begriffsschrift are presented. Frege was quite explicit about these in his replies to early criticisms and unfavorable comparisons with Boole's notation for propositional logic. This discussion reveals that the Begriffsschrift is in fact a well thought-out and carefully crafted notation that intentionally exploits the possibilities afforded by the two-dimensional medium of writing like none other.

Friday, September 15, 2017. 11:30am–1:00pm
McGill University, Leacock Building, Room 927