

ON IDENTITY AND INTERCHANGEABILITY IN
LEIBNIZ AND FREGE

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“Eadem sunt quorum unum potest substitui alteri salva veritate”. This famous and so called Leibnizian principle was formally assumed by Frege in *Grundlagen der Arithmetik* §65 with the following comment: “In der allgemeinen Ersetzbarkeit sind nun in der That alle Gesetze der Gleichheit enthalten”. Without explicitly mentioning Leibniz, the content of the principle had been already accepted by Frege in *Begriffsschrift* §8. Afterwards, the principle reappears in *Sinn und Bedeutung* (p. 35), where, as in *Grundlagen* it is explicitly assumed as a Leibnizian principle. In *Grundlagen der Arithmetik* §65 Frege quotes the Leibnizian formula according to Erdmann’s edition¹; the passage referred to by Frege includes a particularly clear and strong explanation of the famous formula, which is meant by Leibniz as a *biconditional*, namely if $A = B$ then A and B are interchangeable in any context *salva veritate*, and if A and B are interchangeable in any context *salva veritate* then $A = B$ ². (A certain confusion of use and mention in this or other formulations of the principle, which was pointed out for instance by A. Church³, is irrelevant to the present discussion, and may be easily repaired).

It should be observed that the principle is inconsistent with respect to another Fregean insight, according to which different names of a thing *make a difference*. This fundamental notion in Frege’s philosophy appeared for the first time in *Begriffsschrift* §8, i.e., in the same paragraph where Frege also formulates for the first time (without mentioning Leibniz) the “eadem sunt. . .” in the above sense of a biconditional. Later on, Frege will introduce a special terminology for this view: “*Sinn*” and “*Bedeutung*”. Frege says that the different names of a thing make a difference (i.e. names have *Sinn* and *Bedeutung*) *because* the aspects of a thing make a difference (i.e. things have or may be given under different aspects). *Sinn-Bedeutung* is primarily an ontological distinction. (“To each of these two ways of determining it there answers a separate name”, *Begriffsschrift* §8).

The ontological distinction underlying *Sinn-Bedeutung* is familiar in