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Frege on Truth and Reference

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... I cannot help feeling that the problem raised by Frege's puzzling conclusion has only been evaded by Russell's theory of descriptions and that there is something behind it which is not yet completely understood.

Kurt Gödel, "Russell's Mathematical Logic"¹

The History of the Argument In "On Sense and Reference" Frege extended his theory of the sense and reference of singular terms to cover as well conceptexpressions (or predicates) and sentences. He argued that in 'oblique' contexts, typically governed by propositional attitude constructions, a sentence refers to what is ordinarily its sense (which he called a 'thought'). Otherwise, he maintained, a sentence refers to its truth-value. The latter fact is surprising in at least three ways: (a) pre-theoretically one would not normally take sentences as referring at all; (b) insofar as one accepted that sentences do refer, one would hardly be inclined to take them as referring to their truth-values; and (c) given the paradoxical character of (b), one would expect a far more convincing argument in its favor than that in fact given by as rigorous a thinker as Frege. To dwell on the latter consideration for a moment, it is well known that the considerations actually advanced in "On Sense and Reference" in favor of his thesis are so weak as to be hardly worth reproducing. And one looks in vain in the rest of Frege's writings for an argument of sufficient persuasiveness to bear the weight of his "puzzling conclusion".

In large part, perhaps, because of the latter fact, Frege's immediate successors, Russell and Wittgenstein (in their atomistic youth), who rejected his doctrine and held that sentences refer to (or 'express' or 'indicate') *facts*, seem never to have cast a backward glance at Frege's argument. The task of filling in the embarrassing lacuna in the master's writings was finally taken up by his great successor, Church, in whose review of Carnap there emerged a respectable version of the argument (see [7]). Gödel repeated the favor ([13]). Once again,

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