

On Gupta and Belnap's Revision Theory of Truth

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Abstract

This paper aims at both introducing and commenting on Gupta and Belnap's revision theory of truth, and is divided into five sections. The first section points out the tension between T- biconditionals and the liar sentences. It also explains the goals of Gupta and Belnap's theory of truth. The second section gives an account of the major theses of Gupta and Belnap's revision theory of truth. The third section formalized the result of the previous section and expounds two formal semantic systems, S^* and $S\#$, in Gupta and Belnap's revised theory of truth. The fourth section introduces and applies one of the natural deductive systems of their theory, C_0 , in order to re-inspect some of the questions related to semantic paradoxes and circular definitions that are raised in the previous sections. In the fifth and final section, I examine in detail some of the consequences of Gupta and Belnap's revision theory of truth, discuss a few counterexamples discovered by Cook, Yaqub and myself, and propose my own view on the problem of truth. My conclusion is that, although Gupta and Belnap's revision theory of truth is both logically clear and partially successful, we nevertheless have good reasons to reject it.

Key Words: the revision theory of truth, circular definition, semantic paradox, T- biconditional, Tarski