

Comments on Hintikka's Paper

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In Hintikka's hands, game-theoretical semantics (GTS) is both a technique and a doctrine. The technique consists in exploiting the game-theoretical method of defining truth, both for the sake of technical results in logic and in order to characterize various nonclassical conceptions of truth. The doctrine is that the game-theoretical interpretation of quantifiers and connectives is an illuminating framework within which to analyze quantification, discourse phenomena, and various types of pronominal cross-reference in natural language.

In these comments, I will consider GTS exclusively as a doctrine. Its distinguishing features may perhaps best be brought out by comparing GTS with another point of view, made precise in different ways by different investigators, which I will call for the purposes of this discussion the *standard framework* for the interpretation of quantifiers and pronouns in natural languages. The major issues to be addressed by either framework are these two:

- i. What principles determine the types and degrees of ambiguity found in quantificational sentences?
- ii. What principles govern the admissibility of anaphoric relations between pronominals and their potential antecedents, particularly quantificational ones; and what are the interpretive possibilities associated with the assignment of such relations?

Consider the familiar ambiguity of sentences of the type of (1):

- (1) A man went into every store.

In the standard framework, this ambiguity is regarded as a matter of *scope*; that is, one pictures (1) as built up, from the point of view of its semantic analysis, in either of two ways, corresponding to the relative orders assigned to the quantificational noun phrases (NP's) *a man*, and *every store*. Such an explanation of the ambiguity of (1) involves the positing of a level of structure at which the ordering of quantifiers is explicitly represented. Just what this level