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DEFINITIONS OF SEMANTICAL REFERENCE AND SELF-REFERENCE

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Consider a language, $\mathcal{L}$, which contains T, as its only semantical predicate; $F_1^1 \ldots F_n^1 \ldots F_1^m \ldots F_n^m$ as syntactical predicates; variables and quantifiers ranging over the sentences of $\mathcal{L}$.*

D-1: For any sentence p, p^* is a sentence just like p except that in p^* each occurrence of T in p is replaced by the first monadic syntactical predicate not occurring in p (call it '*').

D-2: An S-*-variant of $\mathfrak{M}_i$ is a model, $\mathfrak{M}_j$, which is just like $\mathfrak{M}_i$ except that the interpretation of * may vary *outside* S. (where S is some subset of the domain of $\mathfrak{M}_i$).

D-3: A subset, S, of D_i is *determinative* in $\mathfrak{M}_i$ for p iff p^* is true in all S-*-variants of $\mathfrak{M}_i$ or false in all S-*-variants of $\mathfrak{M}_i$.

D-4: The intersection of the sets determinative in $\mathfrak{M}_i$ of p is the set of sentences that p *directly semantically refers* to in $\mathfrak{M}_i$.

D-5: A sequence of sentences, such that each member (excepting a last member) directly semantically refers (in $\mathfrak{M}_i$) to its successor is a *sequence of semantical reference* (in $\mathfrak{M}_i$).

D-6: If A precedes B in a sequence of semantical reference (in $\mathfrak{M}_i$) then A *semantically refers* to B (in $\mathfrak{M}_i$).

D-7: If A semantically refers to A (in $\mathfrak{M}_i$), A is *semantically self-referential* (in $\mathfrak{M}_i$).

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*These definitions were circulated to some people working on self-reference in 1970. Their appearance here is occasioned by Mr. Paul Vincent Spade's interesting and sympathetic article, "An alternative to Brian Skyrms' approach to the Liar," *Notre Dame Journal of Formal Logic*, vol. XVII (1976), pp. 137-146.

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