

A Pragmatic Theory of Locally Standard Grammar

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Introduction What is the relation between the grammar underlying language learning and the grammar underlying deduction? Even if the deep grammatical structure of English could somehow be represented as standard first-order grammar, what significance would this fact have for the question of language learning? In this paper a theory of locally standard grammar is developed which throws light upon these questions. The deep grammatical structure of a fragment of English will be called *locally standard* if, roughly speaking, for each sentence s of the fragment there is a context or linguistic neighborhood of s whose deep structure is that of standard first-order grammar. The theory of locally standard grammar so conceived will be seen to apply to a large and important fragment of English, including sentences containing indexicals, adverbs, and attributive adjectives. This fragment of English will be referred to as locally standard English.

The idea of locally standard grammar is conceived in analogy with the geometric idea of locally Euclidean space. The latter idea may be illustrated by the surface of the earth, which is not a Euclidean space but is locally Euclidean in the sense that for any given point of the surface, if one chooses a sufficiently small neighborhood of the point, the geometry of the neighborhood is very nearly Euclidean. Analogously, the grammar of locally standard English evidently resists a global standard analysis, but we shall see that every sentence of locally standard English is part of a linguistic neighborhood whose sentences indeed admit of standard formalization.

From this viewpoint, a language may be conceived as an abstract object analogous to a geometric manifold. As the structure of a manifold may be described by an atlas of charts for a class of neighborhoods covering the points of the manifold, so we may hope to describe the structure of a language by means of a collection of grammars for linguistic neighborhoods covering all the sentences of the language. In particular, as the geometry of the surface of the earth may be described by an atlas of charts reflecting very nearly Euclidean

Received May 25, 1983; revised December 12, 1983