Locally Standard Grammar

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Locally standard grammar treats natural language as a structure resembling a manifold, in which every sentence is an element of a set of sentences (a *standard neighborhood*) which is associated with a polyadic Boolean algebra of equivalence classes of formulas (the *charting language* for the neighborhood). The fundamental idea is that, in a sufficiently restricted context, the algebraic structure underlying standard logic is rich enough to accommodate the deep grammatical structure of any declarative sentence. Relativized to a standard neighborhood, the deep structure of nominalization and propositional attitudes, indexicals, adverbs and attributive adjectives, tense, mass expressions, and embedding of subordinate clauses of arbitrary complexity may be represented in the associated charting language.

The structure of a standard neighborhood is determined by a pragmatic valuation function which represents the shared linguistic competence of idealized speakers. Every sentence of the neighborhood is pragmatically synonymous with a sentence in the ran ge of a recursive translation function on the charting language. There is a natural isomorphism between the charting language and the range of this translation; formulas of the charting language may then be considered abbreviations of their translates, and models of the former may be thought of as models of the latter. Admissible models are models of the analytic sentences of the neighborhood, which are defined pragmatically.

Ambiguity, including that of indexicals, is represented by overlapping neighborhoods. An extensional deep structure is developed for intensional surface structure, using the concept of *quasi-truth*, defined by weakening Tarski's convention (T). Quasitruth has independent justification: every standard neighborhood is nested in a hierarchy of standard neighborhoods in which convention (T) is eventually satisfied by every sentence of the hierarchy. In terms of quasi-truth, quasi-propositions are defined and the locally standard grammar of nominalization developed. The Boolean algebra of non-paradoxical quasi-propositions in any admissible model is isomorphic to the subalgebra of the Lindenbaum algebra consisting of non-paradoxical propositions.

Adverbs in a charting language are mappings from predicates to predicates; prepositions are mappings from predicates to adverbs. Realizations of these mappings act as partial functions on the expressions of the associated neighborhood. A composite expression in the range of such a function may belong to overlapping neighborhoods and have neighborhood-relative decomposition properties.

Sweet, Albert: 1984, "A Pragmatic Theory of Locally Standard Grammar, *Notre Dame Journal of Formal Logic 25*: 264-82.
Sweet, Albert: 1988, *The Pragmatics and Semiotics of Standard Languages*, Penn State Press, University Park and London.
Sweet, Albert: 1994, "Nominalization in Locally Standard Grammar", *Current Issues in Mathematical Linguistics*, North-Holland. Sweet, Albert: 1999, "Local Semantic Closure", *Linguistics and Philosophy*, 5.

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