Reconceptualizing Navajo Word Formation & Holoxemic Relations

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For this talk, I discuss one component of a large-scale project on Navajo grammar, namely holoxemic relations. Working in the Sign Based Construction Grammar (SBCG) approach, I pursue a reconceptualization of Navajo word formation, as it relates to holoxemes, a term I developed to describe simplex and complex predicational constructions.

This reconceptualization comprises several key objectives. The first of these objectives is to explicitly describe the grammar signature of the holoxeme system, including the declaration and designation of sign types and subtypes: roots/stems, sublexical units or fragments, and lexemes. The second objective is to sort these types into a multiple inheritance hierarchy, wherein subtypes are structured by means of inherited properties. These inheritances or vertical redundancy provide (partial) descriptions of shared patterns or structures (cf. Crysmann 2021; Davis & Koenig 2021; Sag 2012). Through specification mechanisms, superfluous properties are (or can be) precluded. The challenges are and continue to be the modeling of horizontal redundancy: the morphosyntactic relations that concern the systematic alternations between hierarchically parallel types. However, making a firm distinction between vertical and horizontal relations prove to be difficult in languages such as Navajo. The difficulty arises from the fact that word formation and some inflectional processes are designated as parallel types.

Furthermore, typed hierarchies alone are inadequate for modeling complex morphological processes. To address shortcomings, SBCG implements the notion of constructs in modeling morphological functions that stipulate horizontal relations. For Navajo, I argue, holoxeme constructions embody constraints that license language-specific constructs: fragment + root/stem configurations (see, e.g. Sag 2012, mother-daughter configurations). These configurations are realized via binary formation processes, which are complementary to the unary structures of inflectional processes. For truly new formations (i.e. 'online' constructions), I operationalize underspecification and cross-cutting properties so that formation devices are also represented in the same typed hierarchy. For example, in Navajo, modeling relations between pseudo-passives and active intransitives necessitate more than the traditional devices such as lexical rules, particularly for cases with limited productivity.

In conclusion, I will show that a construction-based approach is especially well equipped to deal with the morphosyntactic complexities of the Navajo grammar and describe ways in which this work will contribute to future endeavors of implementing the Navajo language.