On the Formal Flexibility of Syntactic Categories

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This dissertation explores the formal flexibility of syntactic categories. The main proposal is that Universal Grammar (UG) only provides templatic guidance for syntactic category formation and organization but leaves many other issues open, including issues internal to a single category and issues at the intercategorial, system level: these points that UG "does not care about" turn out to enrich the categorial ontology of human language in important ways.

The dissertation consists of seven chapters. After a general introduction in **Chapter 1**, I lay out some foundational issues regarding features and categories in **Chapter 2** and delineate a featural metalanguage comprising four components: specification, valuation, typing, and granularity. Based on that I put forward a templatic definition for syntactic categories, which unifies the combinatorial and taxonomic perspectives under the notion *mergeme*. Then, a detailed overview of the "categorial universe" I work with is presented, which shows that the syntactic category system (SCS) is an intricate web structured by five layers of abstraction divided into three broad levels of concern: the individual level (layers 1–2), the global level (layers 3–4), and the supra-global level (layer 5). In the subsequent chapters I explore the template-flexibility pairs at each abstraction layer, with **Chapters 3–4** focusing on the first layer, **Chapter 5** on the second layer, and **Chapter 6** on the third and fourth layers; the fifth layer is not in the scope of this dissertation.

Chapter 3 examines a special type of category defined by an underspecified mergeme, the *defective category*, which behaves like a "chameleon" in that it gets assimilated into whatever nondefective category it merges with. This characteristic makes it potentially useful in analyzing certain adjunction structures, and I explore this potential by two case studies, one focusing on modifier-head compounds and the other on sentence-final particles. **Chapter 4** examines another special type of category defined by the absence of a mergeme, the *Root category*. Deductive reasoning leads me to propose a *generalized root syntax*, according to which roots are not confined to lexical categorial environments but may legally merge with and hence "support" any non-Root category. I demonstrate the empirical consequences of this theory by a comprehensive study of the half-lexical–half-functional vocabulary items in Chinese.

Chapter 5 ascends to the second abstraction layer and raises the question of whether the categorial sequences (or projection hierarchies) in human language are necessarily totally ordered, as certain analytical devices (e.g., "flavored" categories) can only be theoretically maintained if we also allow categorial sequences to be partially ordered. After a diachronic study of the flavored verbalizer v_{BE} (stative) in Chinese resultative compounds, I conclude that while "flavoring" is indeed a possible type of flexibility in the SCS, it is the deviation rather than the norm due to non-UG or "third" factors and hence should be cautiously used in syntactic analyses.

Chapter 6 ascends even higher on the ladder of abstraction and examines the global inter-

connection in the SCS ontology with the aid of mathematical Category theory. I formalize the functional parallelism across major parts of speech and the inheritance-based relations across granularity levels as Category-theoretic structures, which reveal further and more abstract templates and flexibility types in the SCS. A crucial mathematical concept in the formalization is *epi-Adjunction*. Finally, in **Chapter 7** I summarize the main results of this dissertation and briefly discuss some potential directions of future research.