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In the spirit of Minimalist syntax (Chomsky, 1995a, 1995b, 2000, 2001), Hegarty builds on previous attempts to dispense with functional categories as theoretical primitives (cf. Giorgi & Pianesi, 1996, 1997). According to his proposal, functional features combine in different ways to form bundles before they project onto functional architecture. In a comprehensive proposal that accounts in a principled way for various possible feature configurations, the author develops constraints that regulate the distribution and projection of functional features and block overgeneration.

In the remainder of the discussion, Hegarty illustrates how this account of functional projection can serve as descriptive and explanatory framework for a diverse range of linguistic applications. Covering data from language change over time and from cross-linguistic variation, as well as from first language acquisition in normal development and from children with Specific Language Impairment (SLI), Hegarty shows how seemingly disparate surface phenomena can be plausibly related once a feature-based notion of functional categories is adopted. The result is an impressively well-rounded and instructive illustration of how theory development and empirical validation can go hand in hand.

SYNOPSIS

Exposition and application motivate the organization of the book (the complete table of contents is available at <http://www.loc.gov/catdir/toc/ecip0511/2005011296.html>), which is divided into nine chapters. Chapter 1 (Introduction) and Chapter 2 lay out the theoretical foundation for six empirically-oriented chapters and the short concluding chapter. In the first chapter, ideas of minimalist syntax are presented with a special focus on functional feature projection and feature ordering. The theoretical core of the discussion can be found in Chapter 2, where functional categories are derived as feature matrices. Three constraints are central to the proposal, namely the Economy of Feature Projection, the Economy of Projection of Infl-Categories, and the Minimal Feature Ordering principle.

Together, they regulate possible functional feature bundles and their projection onto clausal structures.

In the following applied chapters, the author first illustrates the descriptive and explanatory adequacy of his feature-based account of functional categories for phenomena of linguistic variation. Chapter 3, devoted to verb-second patterns in Germanic languages (especially Old English and Middle English), illustrates how different sets of restrictions on feature co-occurrence motivate cross-linguistic and language-internal variation of syntactic structures, as well as change over time. In Chapter 4, a synchronic perspective is adopted, and clitic placement and climbing (in Modern Greek and the Romance languages) receive an explanation in terms of movement driven by feature-matching associations. Also devoted to synchronic description is Chapter 5, which gives an account of tenseless clauses in Modern English. The relative paucity of projected features in the data presented here, the author argues, obtains a motivated explanation only when one supposes that features are projected and combined according to minimal necessity.

Data from language acquisition serve as the second empirical testing ground for Hegarty's proposals. Central to the discussion here are claims previously made in the literature about the development of functional categories (especially Radford, 1990, Guilfoyle & Noonan, 1992, Vainikka, 1993/94). Chapter 6, the first of three chapters focusing on acquisition, re-examines longitudinal data for three children obtained from the CHILDES database. Based on the evidence thus presented, Hegarty stipulates that adult grammars differ from grammars in early childhood in the distribution of features into feature matrices. Convergence with adult grammar is seen as the result of maturation, during the course of which children move from an initially empty inventory of functional features through stages of gradual feature acquisition that go hand in hand with the acquisition of ordering and co-occurrence constraints. In Chapter 7, Hegarty goes on to delineate the growth process involved in convergence with adult grammars. Drawing on quantified data, he shows that development over time involves an increase in the number of feature matrices that can be projected as functional categories. Non-adult combinations, on this account, are indicative of the maturation involved. When functional categories are taken as primitives (e.g. I or C, as proposed in the literature), however, such non-adult combinations cannot be accounted for. The final chapter on acquisition, Chapter 8, focuses on data from children with SLI. Here, Hegarty illustrates how his feature-based account of functional categories can explain SLI phenomena as the result of deficient resources for the projection of feature matrices as functional categories. An overall summary, Chapter 9, concludes

the book.

CRITICAL EVALUATION

The case made by Hegarty for functional categories as projections of feature-bundles rather than primitives of syntactic structure is of much theoretical appeal. A rigorous application of minimalist ideas appears easily compatible with the enterprise of systematically breaking down the functional categories in sentences and nominal phrases into functional features. Especially elegant in this respect is how Hegarty works out how these features, allowed to combine freely into feature-bundles, can account for variation in functional architecture both in terms of an individual's linguistic competence and in terms of typological differences between and among languages.

It is a definite strength of this ambitious book that it defines its proposals with respect to those made previously in the literature, while at the same time seeking a much wider scope and contributing new data (e.g. in Chapter 5). In what might be called an exemplary illustration of the dialectic relationship between theory-development and evidence of relevant linguistic phenomena, the book first establishes theoretical tenets, then offers a discussion of cross-linguistic data, and finally gives an account of language acquisition. A buy-one-get-three pitch would be well suited for this triangulation, because all parts appear well reasoned and thoroughly composed. A discussion of the book in a graduate seminar, for example, will bring home the point of what Chomsky (1986) demanded in postulating that linguistic theory ought not only to describe knowledge of language but also to explain the acquisition of such knowledge.

Due to the scope of the material, appreciation and evaluation of the presented evidence will be facilitated by special expertise of readers in either typology or acquisition studies. For this reviewer, especially the sections with a psycholinguistic focus proved a test case for plausibility. While the cohesiveness of the argument is always maintained, the sequencing of Chapters 6 and 7 on language acquisition might have been negotiated somewhat more overtly. Theories and predictions made in continuity accounts have been placed in the latter chapter, but readability and clarity would have benefited from addressing the theoretical proposals prior to all discussion of data. Some methodological issues in this part, while addressed briefly by the author, cannot ultimately be resolved, such as, for example, the focus on child language production in the normalization procedures that informed data quantification. Still, the use of data from the public domain (cf. CHILDES database, <http://chilides.psy.cmu.edu>) makes the whole range of data available

for follow-up analyses, which no doubt will prove stimulating to further discussion.

Overall transparency and thorough documentation characterize the book as a whole. Figures and language examples have been carefully edited with only the very occasional typographical error (p. 17 'welchen film'), relevant and up-to-date sources have been listed in the bibliography, and a highly accessible index allows efficient work with the book as a reference. For those planning to use the book in graduate education, it will be useful to explain the notations used in syntactic bracketing and tree diagrams, however; basic notational conventions have been taken as given.

In general, the care taken to ground the theoretical proposals made in the book in data from diverse linguistic areas should prove thought-provoking for linguists in all the areas the book addresses. For psycholinguistic research in particular, one can expect a renewal of the discussion about what drives acquisition of functional projections. Certainly, the falsifiability of Hegarty's claims will motivate further inquiry. One promising area of application, beyond the scope of the argument presented in the book but in very close proximity to it, would be the field of second language acquisition, which has regularly responded to developments in generative theory with productive lines of research. In particular, the inquiry into what motivates differences between native and non-native grammatical representations should receive new momentum with the testable hypotheses offered in Hegarty's feature-based account of functional projections.

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