

preference for an alternative. The most frequent alternative is to encode the verb of saying, believing, etc., as a parenthetical, as in ... *eine Aufgabe, bei der, meint der Minister, X eine Rolle spielt* '... a task in which, the minister *von* + NP 'of + NP' in the matrix clause to avoid extraction of the noun phrase in the embedded clause, as in the second version of the example cited at the beginning of this review. In the spoken language, the commonest alternative to a WH question with *Satzverschränkung* is a double WH question, such as *wes glauben Sie, wie oft ich solche und ähnliche Worte höre?* 'What do you think, how often I hear such and similar words?'

Interestingly, the restrictions against *Satzverschränkung* in German seem to be of relatively recent introduction. Before around 1830 *Satzverschränkung* occurs frequently even in the best stylists, but from 1830 it starts to disappear from the written language. This seems to have been a spontaneous development, since the earliest attested criticism of *Satzverschränkung*, and a moderate criticism at that, does not occur until 1878, by which time the construction had all but disappeared from the written language.

While such detailed studies of *Satzverschränkung* will no doubt be of interest primarily to Germanists, their importance for general linguistics should not be overlooked. First, general linguistic works should be more careful in claims to the effect that German disallows such extractions, evinces are often exactly parallel to those found in other languages and therefore provide further evidence for generalizations based on such hierarchies; for instance, in English too it is harder to extract subjects of embedded clauses than objects of embedded clauses; compare **who do you think that came with whom do you think that we saw*.

Kvam's monograph is broader in scope than the joint work, since it also considers extraction out of infinitive constructions (such as ... *wenn ich einen solchen Brief beginne zu schreiben, compare wenn ich beginne, einen solchen Brief zu schreiben* '... when I begin to write such a letter') and extraction possibilities in Norwegian.

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Joan L. Bybee: *Morphology: A Study of the Relation Between Meaning and Form*. Amsterdam and Philadelphia: Benjamins, 1985. 234 pp.

This is a novel contribution to morphological theory which offers important theoretical as well as methodological insights. Its central thesis

is that morphology should not be studied independently of meaning. Bybee thus departs from most of the formally oriented structural and generative morphologies of the past few decades. She lays the foundations of a 'morphosemantics' that returns, in important respects, to traditions such as those initiated by Sapir, Boas, Kurylowicz, Jakobson, and Greenberg.

The interest is focused on a broad range of issues including the structuring of morphological classes in terms of cross-linguistic and even cross-cultural comparisons; the determinants of productivity; the structure of morphological paradigms; integration of descriptions of morphological systems with psycholinguistic data on word-form processing and acquisition of morphology; exploration of general principles explaining meaning-form correlations; and integration of synchrony with diachrony.

The central empirical and methodological contribution is a survey of verbal inflection in 50 languages. This stratified random sample, originally compiled by Revere Perkins (1980), proves very illuminating and once more stresses the point that the quest for (near-)universals must take as its starting point phenomena actually occurring in a sufficiently large and representative set of languages. In some respects, these data lead to revisions of Greenberg's (1963) classical typological work on morphosyntax (for example, SOV languages seem to be much more common than Greenberg's corpus indicated).

The book is organized into ten chapters. The central ones concern the semantic determinants of inflectional expression, the organization of paradigms, the lexical/derivational/inflectional continuum, basic principles in a dynamic model of lexical representation, and the manifestations of aspect, tense, and mood inflections in the languages of the world (that is, in the sample of 50 languages). The initial and final chapters sketch Bybee's views on the explanation of various issues in morphology, among others, in regard to language change.

Optimal morphology is often claimed to conform to the 1/1 relation between meaning and form. This view singles out allomorphy, fusion, and suppletion as somewhat aberrant or costly. Bybee's position is that such phenomena can, in fact, be partly deduced from meaning properties. Thereby the arbitrariness of morphological expression is less, and the 'naturalness' of allomorphy, etc., greater, than is often presumed. To this end, Bybee invokes the principles of relevance and generality. They have other explanatory functions as well, especially in accounting for how meanings are expressed along the lexical/derivational/inflectional/syntactic continuum, and for how bound morphemes are positioned in regard to the stem.

The substance of the *relevance* principle is that a meaning element is relevant to another meaning element if its semantic content directly affects

or modifies the semantic content of the latter. Semantic elements are highly relevant to each other if the result of their combination denotes something cognitively or culturally highly salient. The more relevant two meaning elements are to each other, the more likely it is that there is a tight bond between their mode of expression. For example, aspectual modification obviously affects the nature of actions more than does the referent of the subject, and therefore aspect is more likely to be lexically and inflectionally expressed than subject agreement. Cross-linguistic comparison shows this to be true.

The second factor enhancing the propensity of a category to be inflectionally expressed is *generality*. The category should be applicable to all stems with the required syntactic and semantic properties, and it should be obligatorily expressed. Tense, in many languages, is such a category. Since the combination of verb stem and tense does not produce a new variant of the basic action described by the verb, it is understandable why tense tends to be inflectional. Causativization, on the other hand, turns the action denoted by the verb stem into an ontologically distinct action (such as English *kill* vs. *die*). Therefore causatives are likely to favor lexical expression.

These principles predict, for example, that categories highly relevant to verb meaning will appear close to the stem, and that these very categories are likely to exert more morphophonemic influence upon the stem than do less relevant categories. The predicted semantically based morphotactic ordering of verbal suffixes is thus valence — voice — aspect — tense — mood — person agreement. Categories further to the left in this scheme also include more stem alternations than rightwards categories. The 50-language sample shows these predictions to be quite significant as default tendencies.

Of course, there are individual exceptions to the ordering scheme (such as Navaho, where person markers occur closer to the stem than aspect markers). It is also obvious that notions such as 'semantic relevance' are inherently vague and leave a considerable latitude of interpretation. Furthermore, many ontological and perceptual problems are lurking in analyses based on saliency classifications of real-world phenomena. Nevertheless, Bybee has made significant progress in relating morphological typology to semantics. One would have expected consideration of Mayerthaler's (for example 1981) work on morphological naturalness. Some of the cognitively based semantics/morphology connections discussed by Bybee had already been pointed out by Mayerthaler.

Bybee's theory of morphological paradigms also revitalizes certain traditional issues. The central notions are the *basic-derived relation* (accounting for central vs. peripheral forms of a paradigm), and *lexical connection* (accounting for how closely intraparadigmatic forms are related). Frequency

of use of individual word forms is accorded a central status. The acknowledgement of both rule and rote processing makes possible a flexible theory of morphological organization where the central issue is not whether a form 'is in' the lexicon or not, but rather what its lexical strength is. Repeated use strengthens its lexical status and its relations to other forms.

The lexical representation of a paradigm is depicted as a cluster of related word forms where stronger and frequent forms are basic and most autonomous. Bybee could have been more explicit on the issue of how rote and rule processing are related. She concedes that both are needed but has little to say on rule processing and its integration with rote processing. For example, for languages with lots of ending classes and, consequently, lots of word forms within individual paradigms (Finnish verbs, say, with some 15,000 distinct word forms, including cliticization), one would hardly like to claim that all word forms are in the lexicon. This would lead to psycholinguistically implausible situations (such that a speaker of Finnish would be forced to internalize many thousand more forms per paradigm than a speaker of English). Bybee's upgrading of the significance of rote processing is motivated but rule processing should not be relegated to the background. Paradigm structure based on stems plus 'concrete' concatenation rules might offer an alternative to excessive word-form listing. Of course, this does not deny that many prototypical, frequent word forms lead an independent lexical life.

This book deserves to be carefully read by all linguists interested in relating language form to meaning, use, and typological variation.

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Thomas M. Paikeday: *The Native Speaker is Dead!* Toronto and New York: Paikeday, 1985. xiv + 109 pp. \$7.50.

This book, henceforth NSD, is in the form of dialogues that the author (a lexicographer of some renown, as he reminds the reader by appending