

Parts of Speech

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We would like to propose that the categorial features in the X-bar theory of phrase structure exhibit an organization not reflected in the system suggested in Chomsky (1970).¹

In Jeanne's recent grammar of Hopi (Jeanne, 1978), and in our own work on Navajo (in preparation), it is proposed that nominalizations -- functioning in the two languages as relative clause expressions and as factive nominals -- should be accommodated directly in the feature system, rather than by means of a "deverbalizing" phrase structure rule of the sort described in Jackendoff (1977, Ch. 9). Specifically, it is suggested that nominalized sentences are maximal (two-bar) phrases of the following feature composition:

[+S
+N].

That is to say, they are simultaneously sentential and nominal. This combination of features, we contend, is to be understood in a special way. The category [+S, +N] has the internal make-up of a sentence but exhibits the syntactic behavior of a noun phrase. In other words, the feature combination [+S, +N] is to be understood in very much the same way as is the exocentric structure



which is specifically forbidden in the X-bar theory, or the deverbalized

structure



specifically allowed in the theory developed by Jackendoff. In short, nominalizations are outwardly noun phrases but inwardly sentences.

The feature representation of this class of elements has the advantage that it does not require the extra level of structure involved in the configurational representation. There is some empirical justification to this, in languages like Hopi and Navajo, at least, since nominalized sentences are configurationally identical to canonical sentences (cf. commentary in Jeanne, 1978, pp. 348-352). Thus, the Navajo nominalization

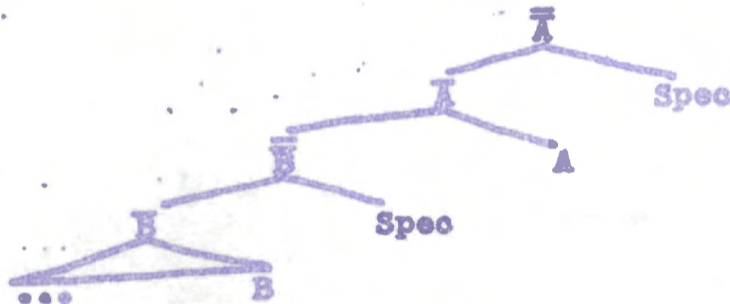
(1) ashkii doo naalnish-da nít'é'-éé

(boy neg work-ENCL aux-ENCL)

'the boy who was not working'

'(the fact) that the boy was not working'

has the structure



as does the canonical sentence

(2) Ashkii doo naalnish-da nít'éé' lá.

'The boy was not working (it turns out).'

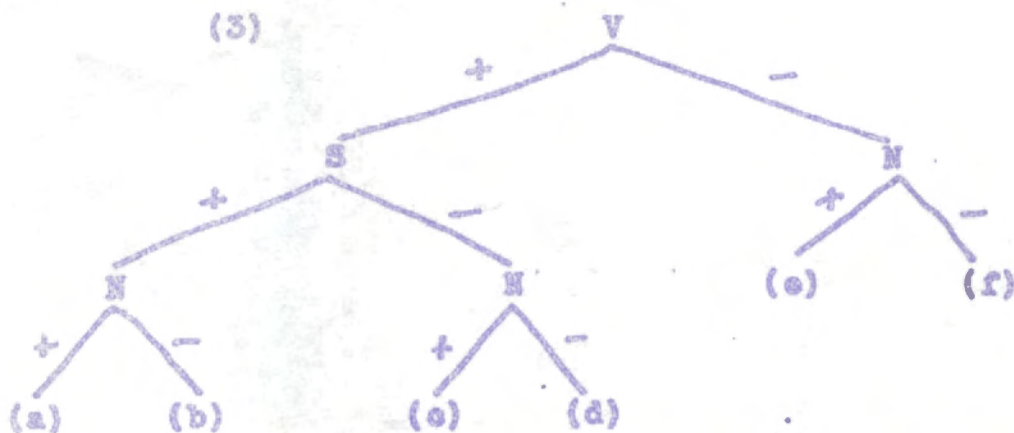
The difference is simply that the first functions syntactically as a noun phrase while the second functions as a root sentence. The

difference is expressed in the feature representation of the nodes labelled A -- in (1), these are [+S, +N], while in the canonical sentence (2), they are [+S, -N].

We propose to extend this sort of logic to all categorial feature combinations. Thus, in general, if a category is marked for two features [A] and [B], one of the feature specifications designates a 'subclass' in relation to the other. For example, [+A, +B] and [+A, -B] are subclasses of the category [+A]. And, most important, the subclass relation is asymmetrical. Thus if [+A, +B] is a subclass of [+A], it is not a subclass of [+B]. For any combination of features, the subclass relation is determined by a universal hierarchy according to which [+A, +B] designates a subclass of [+A] if and only if [A] is superior to [B].

There is a special meaning associated with the subclass relation in a category [+A, +B] if the inferior feature [B] is 'autonomous' -- i.e., also appears in the combination [-A, +B]. The category [+A, +B], in this case, is 'internally' an [+A] and 'derivatively', or 'externally', a [+B]. Thus, its internal make-up is that of a canonical [+A], but its syntactic function, or 'behavior', is that of a [+B]. This is the meaning associated with the combination [+S, +N] and exemplified by the nominalized sentence of Navajo, (1) above.

We propose, very tentatively, that the hierarchy of categorial features is as follows:



This represents only the upper reaches of the hierarchy, and it makes two assumptions which are quite possibly incorrect about the sentential feature S, assuming that it exists, namely (1) that S is superior to N and (2) that it is not autonomous from [+V].

The values of the nodes labelled (a, b, ..., f) are as follows:

- (a) at the phrasal level: nominalized sentence
at the lexical level: nominalized auxiliary
- (b) phrasal: canonical sentence
lexical: auxiliary
- (c) phrasal: nominalised verb phrase (*productive -ing forms*)
lexical: nominalized verb
- (d) phrasal: canonical verb phrase
lexical: verb
- (e) phrasal: canonical noun phrase
lexical: noun
- (f) phrasal: other phrase, particle phrase
lexical: other form class, particle

Adpositions (prepositions, postpositions, cases (category [+P])) and adjectives (category [+A]) fit into the system in various ways, depending upon the language.

In some languages, the adposition is autonomous (therefore (f)).

This is evidently the case in English, where canonical prepositions are not classifiable as nouns or verbs. This is also probably the case in Hopi, though Jeanne notes that they share certain properties with nouns and certain other properties with verbs (Jeanne, 1978, pp. 316-7). In Navajo, however, it is quite reasonable to suggest that postpositions are a subclass of nouns, $[-V, +N, +P]$, since the postpositional phrase, and the postpositional word as well, are formally identical in structure to inalienable possessive constructions headed, for example, by body-part nouns or kinship terms.

to be continued