

Stress Location and the Acquisition of Morpho-Syntactic Parameters

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In this paper, I argue that the canonical stress position determines the possibility of compounding and preposition stranding in a language. Based on the analysis of Stowell (1981), Snyder (2001) and Sugisaki and Snyder (2002) I argue that it is the compounding parameter that decides compounding and preposition stranding. However, the nature of the parameter is not well discussed, and it is not clear how the parameter is set in language acquisition. I argue that the compounding parameter itself is not necessary in grammar by showing how the parameter is derived from the stress position in a language.

The availability of preposition stranding is quite limited cross-linguistically. For example, it is available in English but not in French, as shown in (1) and (2). Snyder (2001) and Sugisaki and Snyder (2002) propose the compounding parameter (3), which is specified as (4) in the case of preposition stranding. It is interesting to note that compounding correlates with stress position in a language. Goedemans and van der Hulst (2005) classify languages into a number of groups according to their stress locations. The list of languages in (5) shows the results of a survey by Sugisaki and Snyder (2002) and the word-stress position from Goedemans and van der Hulst (2005). The list in (5) shows that preposition stranding is allowed only in languages with initial, right-oriented and combined stress, and not in languages with antepenult, ultimate, right-edge, unbounded stress.

The correlation between stress position and the availability of preposition stranding is explained by the asymmetry of juncture in left/right-branching structure. The juncture between constituents in left-branching structure is shorter than that in right-branching structure. This is seen in blocking of phonological change in right-branching structures such as Japanese *Rendaku* Voicing (Otsu 1980) and Korean *n*-Insertion (Han 1994), and in the occurrence of interfixes in Dutch (Krott et al. 2004). This junctural asymmetry makes left-branching structure a compound-like unit and right-branching structure a phrasal unit.

For preposition stranding, a verb which tends to have more than one syllable and a mono-syllable preposition can make a left-branching structure $[[_V \sigma \sigma] [_P \sigma]]$. We assume that this ‘phonological compounding’ is allowed only if the resulting ‘compound’ conforms to the unmarked stress position in a word in the language. Then, ‘phonological compounding’ $[[_V \underline{\sigma} \sigma] [_P \sigma]]$ (stress underscored) is possible in languages with right-oriented stress (Germanic), which allow antepenult stress as well as penult and ultimate stress, as shown in (7a). However, ‘phonological compounding’ is not possible in languages that do not have antepenult stress as the unmarked stress, such as right-edge stress (Romance) and unbounded stress (Slavic). The antepenult stress in ‘phonological compounds’ $[[_V \underline{\sigma} \sigma] [_P \sigma]]$ violates the canonical stress position in those languages, as shown in (7b). Greek has antepenult stress, but its stress location is fixed and not weight-sensitive like Germanic right-oriented stress. Thus, we can correctly predict that languages with right-oriented stress allow preposition stranding.

As for language acquisition, this interface approach makes it possible to do away with the proposed compounding parameter. All children have to learn is the unmarked stress location in words in the language. Assuming the interface condition proposed by Chomsky (2000), it is theoretically desirable that this phonological parameter decides a number of morpho-syntactic properties. In Tokizaki and Kuwana (2009), it is argued that the unmarked stress location decides head-complement orders in a language, such as affix-stem, noun-genitive, adposition-DP, verb-object and adverbial subordinator-clause. Since languages differ in allowing the complement-head order with each constituent, setting just one head parameter is not enough for children to learn the head-complement orders in the language. For example, English has a mixed head-complement order in that stem-affix and genitive-noun affix are complement-head orders and P-DP, V-O and adverbial subordinator-clause are head-complement orders. It is implausible to assume that children have to decide each parameter value for all the head-complement pairs. Assuming Kayne’s (1994) universal base hypothesis, it is argued that complement may overtly move to the specifier position of its head in order to get semantic interpretation at LF interface. This complement movement is possible as long as the resulting ‘phonological compound’ conforms to the unmarked word-stress pattern in the language.

Thus, stress-location is a parameter deciding morpho-syntactic properties in languages. This study shows an interesting approach to the relation between prosody and the acquisition of grammar.

Data

- (1) a. Who are you working with?
 (2) b. *Avec qui travaillez-vous?*
 with who work-you
- (3) The grammar {disallows*, allows} formation of endocentric compounds during the syntactic derivation. [*unmarked value]
- (4) There {is, is not} a word-formation rule in the lexicon which creates a complex verb of the following form: [_V V-Particle].
- (5)
- | | <u>V-Particle</u> | <u>P-stranding under A'-movement</u> | <u>Stress position</u> |
|-----------------|-------------------|--------------------------------------|--------------------------|
| North Germanic: | | | |
| Icelandic | V-Prt-NP | Preposition-stranding | Initial |
| Norwegian | V-Prt-NP | Preposition-stranding | Right-oriented |
| Swedish | V-Prt-NP | Preposition-stranding | Right-oriented |
| Danish | V-Prt-NP | Preposition-stranding | Right-edge and unbounded |
| West Germanic: | | | |
| English | V-Prt-NP | Preposition-stranding | Right-oriented |
| Greek: | NO | NO | Antepenult |
| Romance: | | | |
| French | NO | NO | R-edge |
| Italian | NO | NO | R-edge |
| Spanish | NO | NO | R-edge |
| Slavic: | | | |
| Bulgarian | NO | NO | --- |
| Russian | NO | NO | Unbounded |
| Serbo-Croatian | NO | NO | Unbounded |
- (6) V [_{PP} P NP] → [_V V-P] NP
- (7) a. ... [_V wórking-with *t*] (σ σ σ) = (... σ σ σ) unmarked
 b. *... [_V travaillez-avec *t*] (... σ σ σ) ≠ (... σ σ) unmarked

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