

Word Formation and Its Directionality:
A Case for Phonology-Morphology Interface

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In this joint research, we looked into the process of lexical and syntactic word-formation in Japanese. Traditionally, an accentual difference has been noted between syntactic phrases illustrated in (1) and compounds illustrated in (2). In addition, there is a third class of items which are words but accentually syntactic:

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|--------|-------------------|----|-----------------------|
| (1) a. | siro'i o'bi | b. | kuro'i maku' |
| (2) a. | siroobi | b. | kuromaku |
| (3) a. | seito'kai kaityoo | b. | ze'nkoku yoroNtyo'osa |

Syntactic phrases in (1) contain two accents, while compounds in (2) contain only one accent. Items in (3) are seemingly compounds, but accentually they belong to the class of syntactic phrases, because they contain two accents.

Previous studies (e.g., Kubozono (1989)) attributed such compounds as those in (3) to rather ad hoc constraints. We proposed a more principled solution to this problem. First, we defined compound and phrase formation as follows:

- (4) Compounds and phrases are different from each other in terms of directionality of guest-word attachment. In the former case, guest-words attach to a host-word leftwards, and, in the latter case, rightwards.

The notion of host, which plays an important role in (4), was defined as in (5):

(5) Host

A host of a complex (i.e., consisting of more than one element) nominal is an element which counts as a base of word concatenation (contra a stem as a base of morpheme concatenation).

The difference in (4) can be illustrated by (6):

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|------------------|---------------|
| (6) a. Compounds | b. Phrases |
| black ← board | black → board |
| BLACKboard | black BOARD |

Second, we showed that such items as those in (3) are generated at a level ordered after level 3, which contains phonological rules assigning accent to lexical compounds.

Third, we defined the notion of S(emantic)-specifier, which, combined with the notion of host defined above, neatly explains the phonological and morphological differences among classes (1), (2), and (3):

(7) S-specifier

An S-specifier of a complex (i.e., consisting of more than one element) nominal is an element which serves the locus of contrast or specifies the particular sets of the other element.

The difference among (1), (2), and (3) can now be captured as a difference as to the location of a host and an S-specifier and as to whether the host and the S-specifier coincide:

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|---------|--------------------------------------------------|---------------------------------|
| (8) a. | [zyoobaNseN no'] [nobiri] | |
| | | cf. [TookaidooseN no'] [nobori] |
| b. | [S-SPECIFIER] [HOST] (Syntactic Phrase/Non-WORD) | |
| (9) a. | [zyoobaNseN'] [nobori] | |
| | | cf. [zyoobaNseN'] [kudari] |
| b. | [] [HOST/S-SPECIFIER] (Lexical Phrase/WORD) | |
| (10) a. | [meeyo] [ka'iiN] | |
| | | cf. [sanzyo] [ka'iiN] |
| b. | [HOST/S-SPECIFIER] [] (Compound/WORD) | |

Our conclusion was that the morphological notion of word, which was defined in terms of whether the host and the S-specifier coincide or not, and the phonological notion of phrase, which was defined in terms of the concatenate direction, are not always mutually exclusive, whose fact leads to the three-way distinction illustrated in (1), (2), and (3).