Word formation and its directionality: a case for phonology-morphology interface
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:

(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 com-
pounds 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 ac-
cents.

Previous studies (e.g., Kubozono (1989)) attributed
such compounds as those in (3) to rather ad hoc con-
strasts. 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 at-
tach to a host-word leftwords, 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):

(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(semantic)-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:

(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 concatenative direction, are not always mutually exclusive, whose fact leads to the three-way distinction illustrated in (1), (2), and (3).