

Morphology problem set 2

24.900 — Introduction to linguistics

February 14, 2005

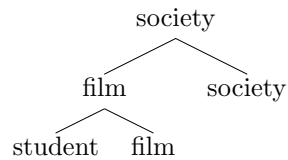
1 Warm-up

Draw labeled tree diagrams for the following compounds. Note that some compound words have more than one meaning and therefore require more than one tree. How does the tree structure relate to the difference in meaning?

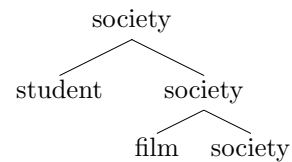
In the following solution, what is projected at each “merger” is what the (sub-) compound is a type of. Drawing just the tree (or the tree plus categorial labels) is enough if an adequate description of the meaning of each parse of the compound is given. Probably more parses are possible than those given here.

- student film society

- Meaning 1: a society for student film

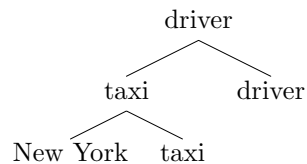


- Meaning 2: a film society for (or run by) students

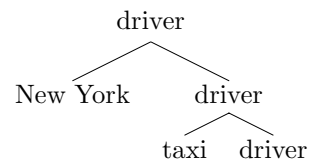


- New York taxi driver

- Meaning 1: a driver of New York taxis

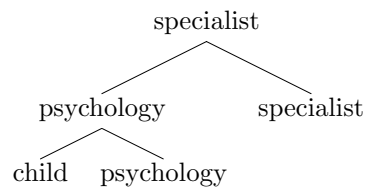


- Meaning 2: a taxi driver from New York

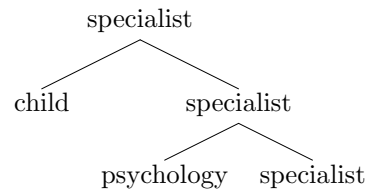


- child psychology specialist

– Meaning 1: a specialist in child psychology

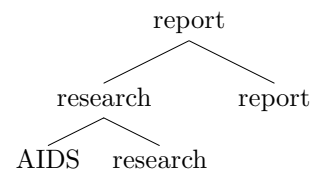


– Meaning 2: a child that is a specialist in psychology

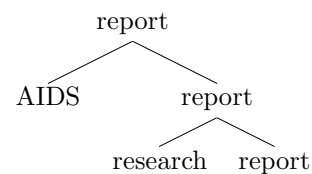


- AIDS research report

– Meaning 1: a report on AIDS research

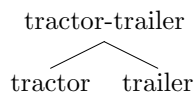


– Meaning 2: a research report on AIDS

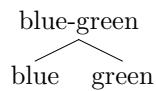


The following are what are called exocentric compounds, where what gives the label to the compound isn't either of the subconstituents. In the first two (so called dvandva compounds), it's a mix of the subconstituents; in the last one, one could assume that it's some phonologically empty nominal suffix with the required meaning. As long as the difference between these compounds and those above is recognized, consider the answer correct.

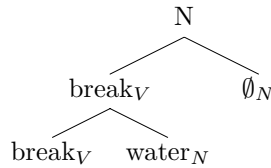
- tractor-trailer



- blue-green



- breakwater



2 Rendaku

In Japanese, certain stems undergo a phonological change at their left edge (traditionally called *rendaku*) when they are the right-hand member of certain types of compounds. The phonological change itself will be the topic of a later problem set. For the present purpose, assume that *rendaku* has applied if a word within a compound starts with any of the following consonants: g, d, z, b. The following is an example of *rendaku* at work:

- (1) a. susi ‘sushi’
 b. maki-zusi ‘roll-sushi’
- (2) a. kaeri ‘going’
 b. yuki-kaeri ‘coming and going’

In (1b), *rendaku* has applied, whereas in (2b) it hasn’t. You should assume, given the data in this problem set, that whether *rendaku* applies or not has to do exclusively with the type of compound (and the position within it) that the word in question is in.

- Based on the following list of compounds, can you describe what positions in what types of compounds are contexts for *rendaku*, and which ones aren’t? Draw labeled trees to make your generalizations explicit. In the following table, the second column is a word-for-word gloss, with clarifications in parentheses when necessary.

a.	yoko-gaki	horizontal writing
b.	naga-gutu	long shoe (boot)
c.	oya-ko	parent (and) child
d.	hebi-dosi	snake-year
e.	eda-ha	branches (and) leaves
f.	hana-zono	flower garden
g.	suki-kirai	likes (and) dislikes
h.	onna-girai	woman disliker (misogynist)
i.	yuki-kaeri	coming (and) going
j.	otome-gokoro	maiden-heart
k.	ori-gami	folding paper
l.	umi-dori	sea bird
m.	isi-datami	stone tatami (stone pavement)
n.	hi-gaeri	day going (day trip)

In compounds made up of two parts, rendaku applies to the right member of a compound when it projects, i.e., when the compound has the form Modifier-Head. The compounds where rendaku doesn’t apply are (in the data above) those where the parts of the compound are symmetric — i.e., both project, as is the case in the English compound blue-green.

- When compounds are made up of more than two words, things become truly interesting. Observe the following:

- me-zamasi-dokee eye waking clock
- hosi-gaki-zukuri dried persimmon making
- nise-kami-dana fake divine altar
- nise-zakura-dayori fake cherry-blossom tidings (tidings of fake cherry-blossoms)
- nise-sakura-dayori fake cherry-blossom tidings (fake tidings of cherry-blossoms)

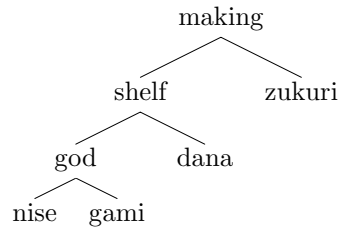
Based on the preceding examples (note especially the minimal pair in (d) and (e) above), can you give the structure and a description of the possible meaning of the compounds in (b)-(c) below, made up of the same words as that in (a), but with *rendaku* in different places?

*The meanings should be more or less evident from the knowledge of what projects and what modifies, but the exact way in which X modifies Y is somewhat indeterminate, much as it would be in one implausible way of giving the English glosses, i.e., (a) fake-god-shelf making, (b) fake god shelf-making, (c) fake-god shelf-making. Incidentally, the point of the next problem was to show how there's a striking parallel how stress is determined in compounds in English and how to determine where the *rendaku* rule will apply.*

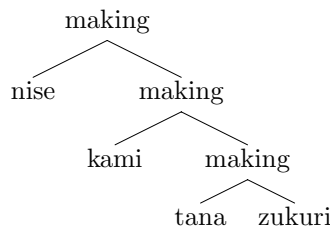
- nise-gami-dana-zukuri fake god shelf making (making of shelves for fake gods)
- nise-kami-tana-zukuri fake act of shelf-making by gods
- nise-gami-tana-zukuri shelf-making by fake gods

The structure of these three compounds is as follows:

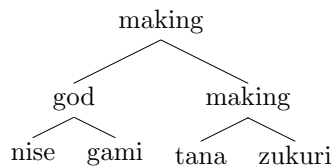
a.



b.



d.



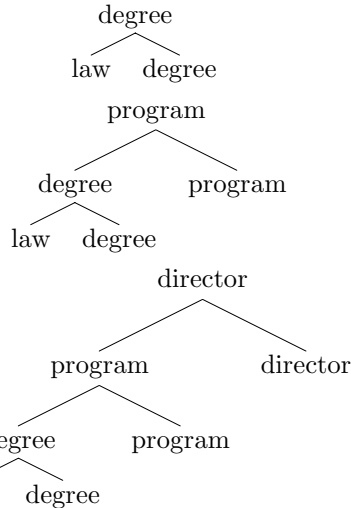
3 English compound stress

Though not as easily identifiable as in the Japanese data discussed above, the structure of a compound in English also has an effect on its pronunciation. Consider the following, discussed in *The Sound Pattern of English*, where the numbers indicate degree of stress (from 1 — most forceful — to 4):

- (3) a. ¹law ²degree
 b. ¹law ³degree ²program
 c. ¹law ⁴degree ³program ²director
 d. ²university ¹entry ³requirement
 e. ²law ³degree ¹entry ³requirement

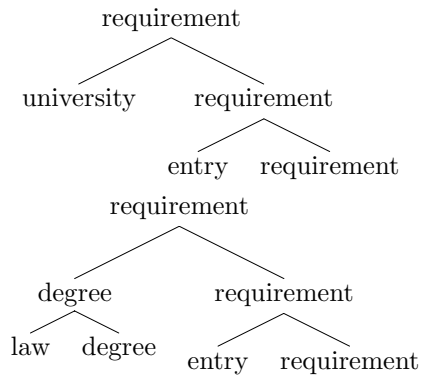
- What's the structure of the compounds above?

—



— *Another parse is possible in this case and the next one; only the most plausible parse is given:*

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- Based solely on the preceding examples (since formulating the precise rules for stress assignment is not within our reach at the moment), what is the stress pattern predicted to be in each of the two readings of ‘student film society’? Do these match your intuitions?

– A society for student film.

¹ ³ ²
student film society

– A film society for/by students.

² ¹ ³
student film society

Intuitions vary wildly; some discussion is appreciated.