## Homework assignment #4: Morphological analysis and word class

Due Tuesday, March 9 by 11:00am in "Assignments" on Sakai

Please submit your assignment as a PDF if typed, or as a PDF or image file (JPG, PNG) if handwritten and scanned. Please double-check that handwritten submissons and/or image files are legible—do not try to squeeze your answers onto this assignment handout. Note that IPA symbols and Japanese characters can be coped from course PDFs or web pages and pasted into your documents!

- (1) Present a list of all the **distinct morphemes** that appear in the data set shown here. Think carefully, because this problem is harder than it looks. Be systematic in your analysis.
  - (a) List both roots and affixes, but don't list the same morpheme more than once.
  - (b) Propose a gloss (translation) for each morpheme in your list, including the affixes.
  - (c) For any morphemes that are verbs, are they consonant-root verbs or vowel-root verbs?

katai 'hard'	katakatta 'was hard'	katamaru '(something) hardens'	katamatta '(something) hardened'	katameru 'harden (something)'	katameta 'hardened (something)'
usui 'thin'	usukatta	usumaru	usumatta	usumeru	usumeta
kiyoi 'pure'	kiyokatta	kiyomaru	kiyomatta	kiyomeru	kiyometa
kuroi 'black'	kurokatta	kuromaru	kuromatta	kuromeru	kurometa
hayai 'fast'	hayakatta	hayamaru	hayamatta	hayameru	hayameta
hiroi 'wide'	hirokatta	hiromaru	hiromatta	hiromeru	hirometa
hukai 'deep'	hukakatta	hukamaru	hukamatta	hukameru	hukameta
yowai 'weak'	yowakatta	yowamaru	yowamatta	yowameru	yowameta

- There is a word in Japanese that means approximately '(is) ambiguous, vague' and is pronounced [aimai]. It has kanji, but it is often spelled out in hiragana: あいまい Based on this information, it is plausible to consider that *aimai* might be an nonpast adjective (A) conjugated with -i, a noun (N), or an adjectival noun (AN).
  - (a) If *aimai* is an A, then *aimakatta* should be a legal word of Japanese. If *aimai* is a N or an AN, then *aimakatta* should not be a word. Briefly explain why this is.
  - (b) The word(?) aimakatta would be spelled in hiragana like this: あいまかった
    Go to the BCCWJ corpus Bonten interface and search on the following strings (use the kana spellings): あいまい aimai

あいまかった aimakatta

Report how many corpus hits you get for each string search (look for the number before '件', right above the box where the list of examples starts). Do your results support any conclusions about whether *aimai* is an A?

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(c) Consider the following three strings. (表現 hyoogen is a N meaning '(verbal) expression')

あいまい表現 aimai hyoogen あいまいの表現 aimai no hyoogen あいまいな表現 aimai na hyoogen

Search on each of these strings in the BCCWJ corpus and report how many hits you get. Then discuss: Do your results provide evidence about whether *aimai* is best analyzed as A, N, or AN? If so, why? Are there any complications?