

Phonosemantic Evidence for the Mimetic Stratum in the Japanese Lexicon

This paper submits some (phono)semantic evidence for the existence of the “mimetic stratum” in the Japanese lexicon based on two experiments. Itô & Mester (1995), Hamano (1998), Kurisu (2006), and many other studies have added another stratum (i.e., mimetic) to the traditional three lexical strata of Japanese (i.e., native, Sino-Japanese, foreign). Their evidence for the fourth stratum is purely phonological: for example, richness of /p/-initial words and a distinct pattern for palatalization. As its name “mimetic” suggests, however, it seems natural to expect there to be a *semantic* motivation for a separate status of this sound-symbolically motivated word class. The following two experiments clarify that *prosodic templates*, skeletally represented in (1), guarantee the categorial status as well as semantic (or sound-symbolic) effects of mimetics.

(1) CVQ[^], CVN[^], CViQ[^], CV([^])V([^]), CVV[^]-CVV, CVV-CVV, CVN[^]-CVN, CVN-CVN, CVi[^]-CVi; CVCVQ[^], CVCVN[^], CVCV[^]ri, CVCCV[^]ri, CV[^]CV-CVCV, CVCV-CVCV
(N = moraic nasal; Q = first half of a geminate cluster; [^] = accent nucleus)

In **Experiment 1**, 30 Japanese speakers were asked to judge how mimetic four types of audiotaped nonsense words (created based on two parameters: whether to fill one of the 15 prosodic templates in (1) and whether to have one of the 12 segmental features Tamori & Schourup 1999 identify; 4x25=100; presented in random orders) sounded (1: not mimetic <-> 7: very mimetic). Mean ranks with stimulus samples are given in (2).

(2)		Prosodic templates	
		√	*
Segmental features	√	4.9 (e.g., /po [^] si-posi/)	1.6 (e.g., /pa [^] muto/)
	*	4.4 (e.g., /soQpe [^] ri/)	1.9 (e.g., /me [^] toa/)

An ANOVA revealed that the main effects of both prosodic-template and segmental-feature parameters are significant ($p < .05$, $df = 7/5992$, $F = 6232.05$ & 8.593 , respectively), but effectiveness of the former is incomparably greater than the latter ($\eta p^2 = .51$ & $.001$, respectively). This suggests that satisfying a prosodic template is the absolute condition for a word to qualify as a member of the mimetic category. The mimetic stratum thus deserves a distinct status with its morphophonology (and associated phonosemantics).

Shinohara et al. (2007) point out the existence of sound-symbolic effects in nonmimetic words in favor of the three strata hypothesis (i.e., not distinguishing native and mimetic strata) based on an experiment using CVCV nonsense words as stimuli. As a supplementary study to Shinohara et al., **Experiment 2** investigated whether the satisfaction of the templates influences sound-symbolic effects. This time, I limited my observation to what is called “magnitude symbolism” of C1 and V1 (e.g., /a/ and /b/ sound larger than /i/ and /p/, respectively), which has been most widely examined since Sapir (1929). 30 Japanese speakers were asked to judge how large imagined referents of two types of audiotaped nonsense words (50 pairs of CVCV-based words, one satisfying a template and the other not, with /k, s, t, p; g, z, d, b/ as C1, /i, e, u, o, a/ as V1, and second syllables fixed to five CVs; e.g., /ko[^]ta-kota/ vs. /ko[^]ta/; /suNyo[^]ri/ vs. /su[^]yo/; presented in random order) seemed (1: small <-> 5: large). Results are visualized in Fig. 1 (blue solid = √templates; red broken = *templates), which shows two words based on the same “CVCV-root” go in the same direction in magnitude-symbolic effects.

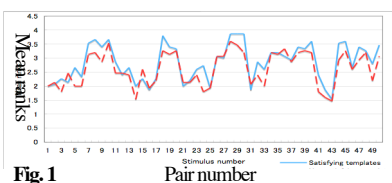


Fig. 1

A *t*-test revealed, though, that these two lines are different enough ($p < .05$, $df = 49$). Specifically, magnitude-symbolic effects were significantly higher in template-satisfying words, especially when C1 is /z/ or /d/. This result suggests that sound symbolism is most effective in (morphophonologically) mimetic words, although, as Shinohara et al. say, it does exist in nonmimetic ones as well.

In conclusion, there is a sufficient reason for positing the mimetic stratum in Japanese in not only phonological but also phonosemantic terms.

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