

A quantitative approach to mimetic diachrony

Category: historical linguistics

This paper reports the first set of results of an interdisciplinary research collaboration among linguistics, psychology, and informatics. We took a quantitative method using the Diet records (1947-2011; see Matsuda 2008) to examine the diachronic change of the form and meaning of Japanese mimetics (aka ideophones). This issue has hardly been investigated so far mostly due to technical limitations. Based on two observations—**1**) the recent increase of certain types of mimetics and **2**) the development of the quotative marking—we point out *the gradual foregrounding of mimetics over time*.

Previous studies. There are two notable studies on the historical change of mimetics. First, in his literature-based study of reduplication, Shibasaki (2009) observes the increase of reduplicative mimetics (e.g., *korokoro* ‘rolling’) and the decrease of reduplicative adverbials (e.g., *yokuyoku* ‘extremely’) in the last four to five centuries. Second, Yamaguchi (2002) pinpoints the order of emergence of some typical mimetic templates, including CVCV-CVCV (e.g., *dokidoki* ‘excited or nervous’) > CVCV-Aff (e.g., *dokiQ/dokiN/dokiri* ‘startled’) > CVCCVri (e.g., *dokkiri* ‘startled’).

Study 1: The frequency of mimetics. We first reexamined Shibasaki’s observation with all 1,620 mimetics in Kakehi et al. (1996) and 524 non-mimetic manner adverbials (e.g., *karoyaka-ni* ‘lightly’) in Nitta (2002). As shown in Fig. 1, in accord with Shibasaki, it turned out that the overall frequency of mimetics has increased in the last century and later (frequencies \times years: $r = .27$, $p < .05$), whereas that of non-mimetic adverbials has evidently decreased ($r = -.83$, $p < .001$).

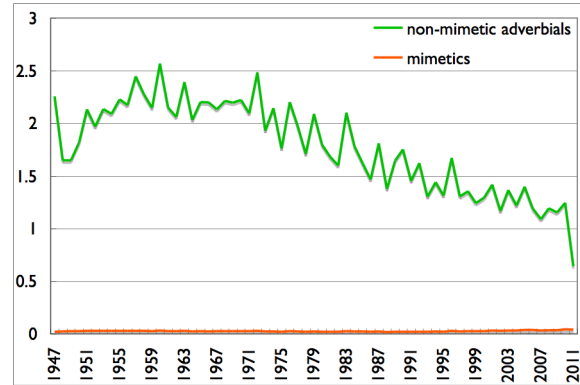


Fig. 1. Overall frequencies (#tokens/sentence)

Second, we reanalyzed 225 monosemous mimetics by classifying them into four semantic classes—phonomimes (auditory; e.g., *gataN* ‘clunk’), phenomimes (visual/textural; e.g., *hunwari* ‘fluffy’), psychomimes (internal; e.g., *gakkuri* ‘disappointed’), and semi-mimetic adverbials (degree/frequency; e.g., *tyoityoi* ‘frequently’). As shown in Fig. 2, the diachronic increase of mimetics observed in Fig. 1 turned out to be crucially attributed to that of semi-mimetic adverbials, whose restricted iconicity keeps their mimetic status low.

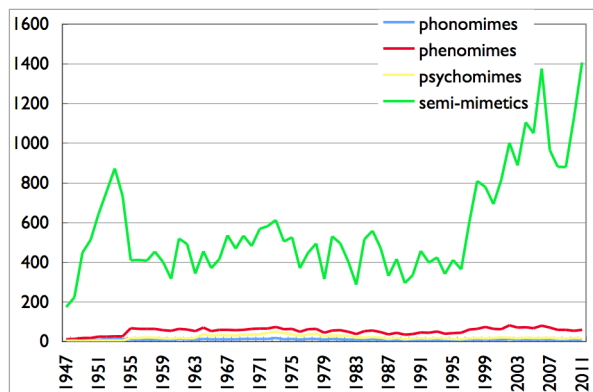


Fig. 2. By meanings (#tokens/type)

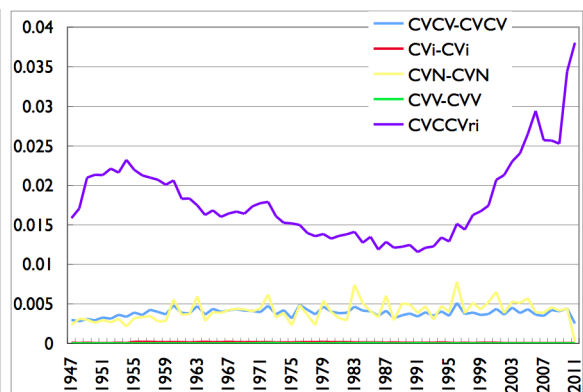


Fig. 3. By templates (#tokens/sentence)

Third, Fig. 3 shows the frequencies of five major template types. Obviously, CVCCVri mimetics made a significant contribution to the overall increase of mimetics in Fig. 1, particularly in the 90s and later ($r = .95, p < .001$). Since it is known that the iconicity of mimetics of this type tends to be relatively low (e.g., *sukkari* ‘completely’ [semi-mimetic]), this result is consistent with the results in Fig. 2. In combination with Yamaguchi’s finding, the present results suggest the gradual replacement of non-mimetic adverbials by non-prototypical mimetics, especially CVCCVri forms.

Study 2: The development of the quotative marking.

We next investigated the diachronic change of the occurrence of *-to* with 698 four-mora mimetics—namely, reduplicative and CVCCVri mimetics—which do not require *-to* phonologically (e.g., *sutasuta(-to) aruku* ‘walk briskly’) (Nasu 2002). As Fig. 4 shows, we obtained the increase of *-to*-marking ($r = .69, p < .001$) and the decrease of bare realization ($r = -.43, p < .001$).

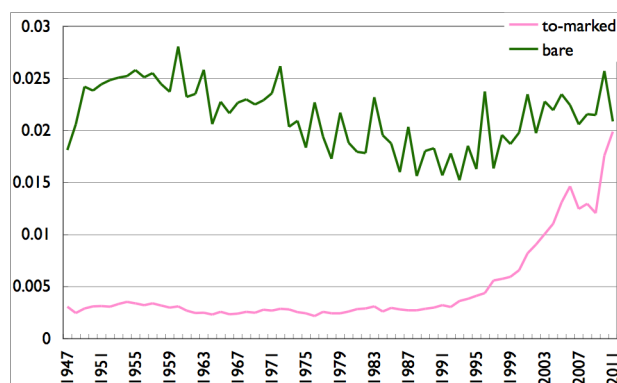


Fig. 4. *To*-marked vs. bare forms

Assuming the “mimesis”-introducing function of quotative indexes in general (Güldemann 2008; other instances of mimesis include reported discourse, gesture, etc.), we can speculate that mimetics have developed their iconicity and/or performativity over time. This interpretation is consistent with the results of Study 1, which concluded that non-mimetic adverbials were remarkably replaced by more or less iconic semi-mimetic adverbs.

Further, some studies point out that recent innovative language makes extensive use of mimetics, as illustrated by innovative verbs and adjectives like *bokor-u* ‘beat’ (< *bokoboko* ‘beating’) and *tyara-i* ‘flashy’ (< *tyaratyara* ‘flashy’) (see Tsujimura & Davis 2011; Akita, *forthc*). This presumable trend may be somewhat surprising but interesting in terms of the so-called “ding-dong” hypothesis, which posits sound symbolism in the origin of language (Ramachandran & Hubbard 2001; Kita 2008). The current study thus suggests the need for anthropological and sociolinguistic pursuits of the diachrony of mimetics (see Nuckolls 1992; Dingemanse 2011 for related investigations).

References. Akita, K. *Forthc*. Register-specific morphophonological constructions in Japanese. *BLS* 38. Dingemanse, M. 2011. *The meaning and use of ideophones in Siwu*. PhD diss., MPI/Radboud U. Güldemann, T. 2008. *Quotative indexes in African languages: A synchronic and diachronic survey*. Berlin/NY: Mouton. Kakehi, H., I. Tamori, & L. Schourup. 1996. *Dictionary of iconic expressions in Japanese*. Berlin/NY: Mouton. Kita, S. 2008. World-view of protolanguage speakers as inferred from semantics of sound symbolic words: A case of Japanese mimetics. In N. Masataka, ed., *The origin of language: Unraveling evolutionary forces*, 25-38. Tokyo: Springer. Matsuda, K., ed. 2008. *Kokkai-kaigiroku-o tukatta nihongo-kenkyuu* [Studies in Japanese linguistics using the Diet records]. Tokyo: Hituzi. Nasu, A. 2002. *Nihongo onomatopoe-no gokeisei-to inritu-koozoo* [Word formation and prosodic structure of Japanese mimetics]. PhD diss., U of Tsukuba. Nitta, Y. 2002. *Hokusiteki-hyoogen-no syosoo* [Aspects of adverbial expressions]. Tokyo: Kurosio. Nuckolls, J. B. 1992. Sound symbolic involvement. *J of Linguistic Anthropology* 2: 51-80. Ramachandran, V. S. & E. M. Hubbard. 2001. Synaesthesia: A window into perception, thought and language. *J of Consciousness Studies* 8: 3-34. Shibasaki, R. 2009. Semantic constraints on the diachronic productivity of Japanese reduplication. *Grazer Linguistische Studien* 71: 79-98. Tsujimura, N. & S. Davis. 2011. A construction approach to innovative verbs in Japanese. *Cognitive Linguistics* 22: 799-825. Yamaguchi, N. 2002. *Inu-wa biyo-to naite ita* [Dogs used to cry *biyo*]. Tokyo: Kobunsha.