

Developmental Grounds for Lexical Iconicity: The Acquisition of Mimetic Semantics in Japanese

This paper seeks developmental grounds for the notion of “lexical iconicity,” which has been roughly defined as “resemblance between form and meaning of words” (Hamano 1998; Haiman 1980), and discusses its importance in the grammar of sound-symbolic words (or mimetics) in adult and infant Japanese.

Hamano (1998) and Akita (to appear) submit a hierarchy of lexical iconicity like (1) for their explanations of some grammatical phenomena like noun modification and verb formation of Japanese mimetics, although without independent evidence and criteria for the ranking.

(1) The lexical iconicity hierarchy:

phonomimes (mimetics for sounds) > phenomimes (mimetics for visual/textural stimuli) > psychomimes (mimetics for internal experiences) > nonmimetics (totally arbitrary)

Based on Noji’s (1973-77) longitudinal speech data of a monolingual Japanese child, Sumihare, this paper gives some developmental support to (1). I and a nonlinguist-examiner classified Sumihare’s spontaneous mimetics from 0;0 to 3;11 (1203 tokens, 761 types) into the three semantic subtypes in (1). The interexaminer concordance rate was 90.37% ($\kappa = .52, p < .001$). The three kinds of mimetics first appeared in the following order, which exactly parallels the iconicity hierarchy in (1):

(2) phonomime (*buubuu* (a car’s zoom) [0;11]) > phenomime (*pai* (manner of tossing a ball) [1;0]) > psychomime (*boo* (drowsiness) [1;5])

As in Figure 1, moreover, both token and type frequencies of mimetics exemplified this ranking with significant differences among the three semantic groups (the main effect of mimetic types: token: $F(2, 429) = 23.71, p < .001$; type: $F(2, 429) = 45.80, p < .001$). Thus, the iconicity hierarchy reflects the fact of lexical acquisition, and can be recaptured as a hierarchy indicating the order of easiness to acquire.

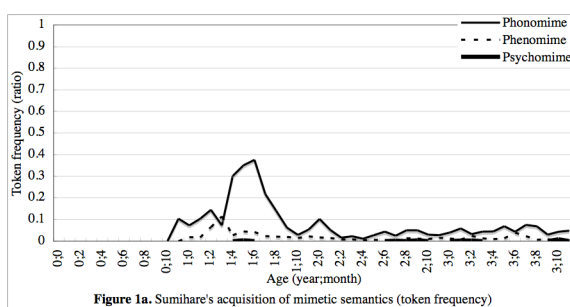


Figure 1a. Sumihare's acquisition of mimetic semantics (token frequency)

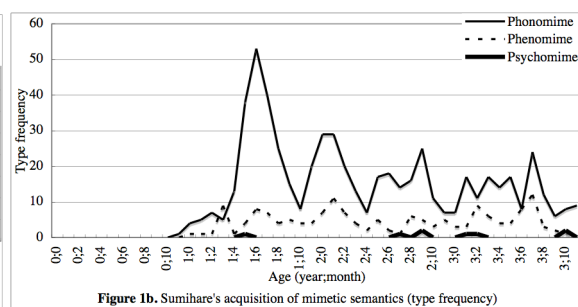


Figure 1b. Sumihare's acquisition of mimetic semantics (type frequency)

Sumihare’s data were further analyzed in terms of his mimetic syntax. Concretely, the development of his mimetic semantics was observed for each of the five grammatical/syntactic categories of mimetics: i.e., single, adverbial, nominal, verbal, and adjectival uses. As a result, intriguingly, the order in (1) was violated only in his production of mimetic adjectives, most of which were phenomimic or psychomimic (see Figure 2).

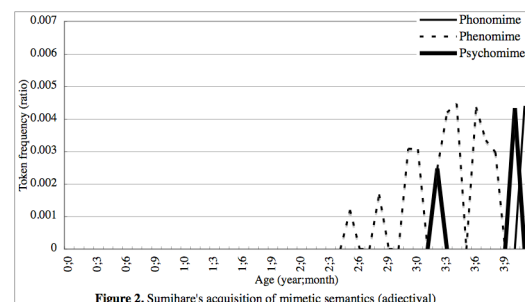


Figure 2. Sumihare's acquisition of mimetic semantics (adjectival)

This situation is reminiscent of mimetics in adult Japanese. As Akita (to appear) discusses, phonomimic verbs (i.e., [phonomime + *suru* ‘do’]) tend to be avoided by “the noniconicity constraint” in adult Japanese (→(3a)). Akita’s finding is in fact the tip of the iceberg. The semantic constraint constrains phonomimic nouns (→(3b)) and adjectives (i.e., [phonomime + copula/genitive]; →(3c)) as well, although not applicable to single (→(3d)) and adverbial uses (→(3e)) of phonomimes.

- (3) a. Verbal: **wanwan-suru* ‘to bowwow’; **dokan-to-suru* ‘to bang’
 b. Nominal: *?*inu-no wanwan* ‘a dog’s bowwow’; *?*bakudan-no dokan* ‘a bomb’s bang’
 c. Adjectival: **totemo wanwan-da* ‘very bowwow’y’; **wanwan-no inu* ‘a bowwow’y dog’
 d. Single: *Wanwan! Inu-ga hoeta.* ‘Bowwow! A dog barked.’; *Dokan!* ‘Bang!’
 e. Adverbial: *wanwan naku* ‘to cry bowwow’; *dokan-to bakuhatu-suru* ‘to explode bang’

We can thus generalize that high iconicity, which goes against the linguistic arbitrariness (de Saussure 1959) and locates phonomimes far away from nonmimetics in meaning, is kept away from around the syntactic core of a sentence (i.e., predicate, arguments) and realized outside the sentence or as adjuncts, probably due to the so-called “syntactic iconicity principle” (see Van Valin and LaPolla 1997).

With the generalized constraint in mind, we can provide two possible explanations that are consistent with each other for the aforementioned exceptional result of Sumihare’s mimetic adjectives. First, the first appearance of each category of mimetics given in (4) suggests that, like adjectives in general (Mintz 2005), mimetic adjectives are acquired late enough to establish the noniconicity constraint. It is therefore likely that this semantic constraint is triggered by the development of the mimetic vocabulary.

- (4) single (*Buubuu.* ‘Zoom.’ [0;11]) > nominal (*Wanwanwan atti ita.* ‘[I found] a doggie over there.’ [1;5]) > verbal (*Pai-si-ta.* ‘[I] tossed [my pajamas].’ [1;6]) > adverbial (*Piihyoo yuuta.* ‘[A kite] said *piihyoo.*’ [1;8]) > adjectival (*Gityagitya-ni natta.* ‘[My hands] got sticky.’ [2;5])

Second, there may be an additional semantic constraint on mimetic adjectives. Since adjectives describe “properties” (e.g., shape, size, color, texture), which seem too different from what highly iconic words depict, phonomimic adjectives are less likely than the other uses of phonomimes. In fact, this strict restriction is also attested in adult Japanese. For example, apparent phonomimic adjectives like *boki-boki-no eda* ‘branches that got broken (with a crunching sound)’ do not describe genuinely auditory properties like “emitting a crunching sound.”

In sum, I succeeded in submitting a developmental basis for the notion of lexical iconicity and illustrating its usefulness in identifying some grammatical/developmental features of Japanese mimetics.

References

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