A Qualia Account of Mimetic Resultatives in Japanese
Category: Morphology/Lexical Semantics

This paper argues that the two morphological subtypes of mimetics found in Japanese resultative(-like) sentences, illustrated in (1), have distinct semantic/syntactic properties that are associated with distinct qualia structures (Pustejovsky 1995). It has been a general assumption in Japanese linguistics that both *-to*/zero-marked "suffixal" mimetics (e.g., *funwari(-to)*, *fuwat-to* 'fluffi(ly)') and *-ni*-marked accentless reduplicative mimetics (e.g., *fuwafuwa-ni* 'fluffy') are "resultative(-manner)" adverbs (Tamori 1984; Kageyama 1996). Indeed, both types of mimetics appear to depict the state of a created object (e.g., the fluffiness of bread).

(1) Mary-wa pan-o {funwari(-to)/ fuwafuwa-ni} yai-ta. (creation)
    M-TOP   bread-ACC MIM-QUOT   MIM-COP   bake-PST
    'Mary baked bread fluffi(ly).'

A closer observation, however, reveals that the occurrence of *(-to)*-marked, but not *ni*-marked, "resultative" mimetics is limited to creation constructions like (1) and inchoative constructions like (2a); they are unlikely to occur in "genuine" resultative constructions for caused change of state, such as (2b).

(2) a. Pan-ga   {fuwat-to/ fuwafuwa-ni}   yake-ta. (inchoative)
       bread-NOM MIM-QUOT MIM-COP   get.baked-PST
       'The bread has been fluffi(ly) baked.'
    b. Mary-wa pan-o {??pasat-to/ pasapasa-ni} kawakashi-ta. (genuine resultative)
       M-TOP   bread-ACC MIM-QUOT MIM-COP   make.dry-PST
       'Mary dried the bread crumbling(ly).'

This incomplete parallelism can be accounted for by developing the qualia semantics of adverbs. (3) gives the relevant parts of the respective structures. The qualia structure of a *-to*-marked mimetic specifies a process in its FORMAL role (for an event type specification) and the state of a created object in its TELIC role (for a purpose specification); this potential ambivalence/flexibility serves as a basis for a dual modification. In contrast, the qualia structure of a *-ni*-marked mimetic specifies a state in its FORMAL role and a result state in its TELIC role, which unambiguously leads to a change-of-state modification.

(3)   FORMAL   TELIC
    a. *funwari(-to)/fuwat-to*: process   [[x ACT ON y] CAUSE [y BECOME [y BE-AT y´ & FLUFFY]]]
    b. *fuwafuwa-ni*:   state   [y BE-AT FLUFFY]

The validity of (3) is reinforced by at least four pieces of evidence. First, some *(-to)*-marked, but not *-ni*-marked, mimetics are compatible with event predicates, as in (4).

(4) Kumo-ga {funwari(-to)/ *fuwafuwa-ni} tadayot-te i-ru.
    cloud-NOM MIM-QUOT   MIM-COP   float-CONJ be-NPST
    'A cloud is floating light(ly).'

Second, as exemplified in (5), only *-ni*-marked mimetics allow the additional occurrence of a mimetic manner adverb in the same clause (cf. Yano 2011).

(5) Mary-ga karaage-o   karat-to {?kongari(-to)/ paripari-ni} age-ta.
    M-NOM   deep.fried.chicken-ACC MIM-QUOT MIM-QUOT   MIM-COP   deep.fry-PST
    'Mary deep-fied chicken crispily {brown/crunchy}.'

Third, as shown in (6), only *-ni*-marked mimetics are incompatible with a locative phrase. This incompatibility is ascribed to the "Unique Path Constraint" (Goldberg 1995), which indicates that *-ni*-marked mimetics designate a result state—which cannot be co-encoded with a spatial goal—but *(-to)*-marked mimetics do not.

(6) Tsuma-ga   shatsu-ni {parit-to/   ?paripari-ni} airon-o   kake-ta.
    wife-NOM   shirt-DAT MIM-QUOT   MIM-COP   iron-ACC hang-PST
    '[My] wife ironed the shirt neat(ly).'

Fourth, the acceptability of *(-to)*-marked mimetics in sentences like (2b) may be slightly improved by adding a creation-like reading, which is accompanied by an explicit purpose, as in (7).

(7) Mary-wa   korokke-o   tsukuru-tameni   pan-o   {?pasat-to/   pasapasa-ni} kawakashi-ta.
    M-TOP   croquette-ACC make-in.order.to   bread-ACC MIM-QUOT MIM-COP   make.dry-PST
    'Mary dried the bread crumbling(ly) in order to make croquettes.'

Thus, the distributional similarities and differences between the two types of "resultative" mimetics can be straightforwardly drawn from their distinct qualia structures in (3).

It is noteworthy that the present account is consistent with Pustejovsky's (1995) treatment of creation constructions, such as *John baked the cake*. He argues that these sentences are obtained by the unification of the qualia of a verb and that of its nominal complement, which involves a type-shift operation. In the unification process, *cake*'s qualia is "co-composed" with *bake*'s qualia based on the identity of the qualia values of their AGENTIVE role (for a factor specification). As a result, the verb phrase *bake a cake* is semantically shifted from (default) change of state to creation, which consists of two event structures (i.e., $[e_1:$ process, $e_2:$ state]). In our example of a creation construction in (1) (and perhaps (7)), the creation interpretation associated with the composite event structure $[e_1:$ process, $e_2:$ state] is obtained by the qualia-structural unification of the verb (i.e., *yak-* 'bake') and its complement (i.e., *pan* 'bread'). The unified qualia structure offers two candidates for modification (i.e., the process of baking, the state of the bread), both of which are available to *(-to)*-marked mimetics.

Furthermore, our qualia account of mimetic resultatives may be extensible to so-called spurious resultatives, such as *He spread the butter {thickly/thick}*. It is known that i) spurious "resultative" phrases depict the state of a created object and ii) the presence/absence of the suffix *-ly* in them (i.e., their categorial status) does not affect their referential content (Washio 1997). Interestingly, these two characteristics are shared by some of our *(-to)*-marked mimetics (e.g., *funwari(-to)* in (1)). This coincidence suggests the plausibility of a parallel treatment of the two mysterious phenomena.

The present proposal for the qualia-structural difference between *(-to)-* and *-ni*-marked "resultative" mimetics thus sheds new light not merely on the basic understanding of Japanese mimetics but also on the lexical-semantic information of words and its interaction with particular syntactic constructions. Particularly significant is the introduction of qualia structure—which has mainly been discussed for nouns (and verbs)—to the semantics of adverbs. This theoretical advancement is hoped to provide fresh insight into some longstanding issues in lexical semantics.

References: Goldberg, A. E. 1995. *Constructions: A Construction Grammar Approach to Argument Structure.* Chicago: U of Chicago Press. / Kageyama, T. 1996. *Dooshi-imiron* [Verb semantics]. Tokyo: Kurosio. / Pustejovsky, J. 1995. *The Generative Lexicon.* Cambridge, MA: MIT Press. / Tamori, I. 1984. Japanese onomatopoeias: Manner adverbials vs. resultative adverbials. *J of Cultural Science* 20: 163-178. / Washio, R. 1997. Resultatives, compositionality and language variation, *JEAL* 6: 1-49. / Yano, M. 2011. *Symmetry of the mimetic aspectual system.* BA thesis, Fukuoka University.