

## A Formal Analysis of Japanese V-*yuku* and its Grammaticalization

This theoretical analysis of V-*yuku* ‘V-go’, a complex predicate created with the grammaticalized form of *yuku* ‘go’ in Japanese, aims to explain the limited occurrence of the form in present-day Japanese, by examining the process of grammaticalization of the motion verb, *yuku* ‘go’  $\gg$  V-*yuku* ‘V-go’  $\gg$  V-*te-yuku* ‘V-CON-go’. We argue, based on our diachronic survey, that reanalysis of V-*te-yuku* and the frequent use of the reanalyzed form expelled the infinitival form, V-*yuku*.

Specifically, we address two questions left unresolved in the literature. Firstly, in contrast with its compatibility with various verbs in ancient Japanese, V-*yuku* can only be preceded by a small number of unergative and unaccusative verbs (*hasiri-yuku* ‘run-go’, \**aruki-yuku* ‘walk-go’, *kare-yuku* ‘die-go’, \**tabe-yuku* ‘eat-go’); in addition, V-*yuku* appears only in adnominal clauses (*Ken-ga hasiri-yuku sugata* “The scene of Ken running”). Although previous studies recognize this fact (Kojima 1998;1999, Shibatani & Chung 2007), they have not done any detailed analyses. Another question is how the semantic difference between V-*yuku* and V-*te-yuku* disappeared. According to Kojima (1998), in ancient Japanese the infinitival form denoted two simultaneous events (*utai-yuku* “sing while moving”), whereas the -*te* conjunctive form meant events in succession (*utai-te-yuku* “go after singing”). As time went by, however, the -*te* conjunctive form came to express the same meaning as V-*yuku*. Explaining these two questions is indispensable to a fuller understanding of the grammaticalization of the Japanese motion verb *yuku* ‘go’.

Based on the generative-lexicon framework (Pustejovsky 1995), we theoretically elucidate the process of grammaticalization by employing the lexical temporal system (Igarashi & Gunji 1998) as well as point-of-view operators (**POINT**, **VIEW**) for our semantic representation. Dividing the qualia structure into the two semantic levels, a *truth-conditional section* (TS) and a *non-truth conditional section* (NTS), enables us to capture the semantic ambiguity in the full-verb *yuku* as discussed by Kindaichi (1950); *yuku* means either movement or achievement. We use the temporal system which is defined by start time (*s*), finish time (*f*) and reset time (*r*) in order to rigidly formalize the reanalysis of V-*te-yuku*. The point-of-view operators describe how the forms concerned differ in grasping a given event (Tawa 2009). The process of grammaticalization is hypothesized as in (1) in our study.

- (1) Path of grammaticalization: *yuku* ‘go’  $\gg$  V-*yuku* ‘V-go’  $\gg$  V-*te-yuku* ‘V-CON-go’

Phase I	Phase II	Phase III	Phase IV
<i>yuku</i>	V- <i>yuku</i>	V- <i>yuku</i>	V- <i>yuku</i>
[Movement]	[Movement]	(diminished in number)	[Movement]
	↓		[Aspect]
	[Aspect]	[V- <i>te</i> ]- <i>yuku</i>	V [- <i>te-yuku</i> ]
		[Successive events]	[Successive events] [Movement] [Aspect]

Since V-*yuku* in present-day Japanese is incompatible with any phrase denoting goals (\**kôen-ni hasiri-yuku* “go run to the park”), the infinitival form seems to have derived from the full-verb *yuku* which has the movement-meaning at TS. As a result of metaphorical extension as argued by Hino (2001), V-*yuku* denotes spatial movements (*kogi-yuku* ‘paddle-go’, *gusi-yuku* ‘go with-go’) as well as aspect (*saki-yuku* ‘blossom-go’, *ake-yuku* ‘dawn-go’).

Along with this process, V-*te-yuku* emerged when -*te* was attached to V-*yuku*; -*te* evolved from an auxiliary -*tu* which indicated completive on the preceding verb. As Kojima (1998)

argues, there used to be a clear distinction in meaning between these two forms in ancient Japanese as mentioned above. At Phase III, the morpheme boundary in the *-te* conjunctive form seemed to be recognized as [V-*te*]-*yuku* in which both verbs function as a full verb.

Similar to a general process of grammaticalization (Hopper & Traugott 2003), as the *-te* conjunctive form had been used frequently (Table 1), *-yuku* reduced to an auxiliary verb; that is, reanalysis of V-*te-yuku*: [V-*te*]-*yuku*  $\gg$  V [-*te-yuku*]. We argue that the reanalyzed form denotes spatial movements and aspect in addition to its initial meaning, successive events, because the role of the conjunctive particle *te* changed from the temporal sequential marker (<) to the event-connector (=). Before the reanalysis, *te* indicated that the event denoted by *-yuku* ( $s_2 < f_2 = r_2$ ) followed the event denoted by the preceding verb ( $s_1 < f_1$ ) as in (2a). In the reanalyzed V-*te-yuku* as in (2b), the particle *te* links the event which the preceding verb expresses ( $s_1 < f_1$ ) with that denoted by *-yuku* ( $s_2 < f_2 = r_2$ ). Consequently, the reanalysis accelerated the use of V-*te-yuku* and the older V-*yuku* has been expelled, only to be fossilized in present-day Japanese.

- (2) a. V-*te-yuku* denoting successive events  
*utai-te-yuku* ‘go after singing’:  $[s_1 < f_1] < [s_2 < f_2 = r_2]$
- b. V-*te-yuku* denoting movement/aspect  
*utai-te-yuku* ‘sing while moving’:  $[s_1 < f_1] = [s_2 < f_2 = r_2]$

Period	710-794	794-1192	1192-1603	1603-1867	1867-
V- <i>yuku</i>	52	25	27	26	1
V- <i>te-yuku</i>	15	17	19	11	92

Table 1: Diachronic change from V-*yuku* to V-*te-yuku*

Thus, our study describing the semantic structures of *yuku* ‘go’, V-*yuku* ‘V-go’ and V-*te-yuku* ‘V-CON-go’ can capture the interrelationships of these forms. Grounded by a diachronic survey, this research should lead to a fuller understanding of the grammaticalization of the Japanese motion verb.

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