## Integration and Autonomy in Japanese Converb Constructions: A Corpus Study

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#### Abstract

Researchers still have no common opinion on the integration and autonomy of parts of Japanese converb constructions. In this article, morphological and syntactic connectedness in the most common Japanese converb constructions is examined through tests whose results can be verified using corpus data. Results show that parts of all considered converb constructions demonstrate morphological independence (except for contracted colloquial forms). As for the syntax, converb constructions demonstrate both features of autonomy and unity, forming a sort of continuum, which makes it difficult to categorize them and to distinguish syntactic subtypes for each of the constructions. This reminds us that grammaticalization is a constantly ongoing process, and word classes not falling steadily into our classifications require flexible means of description.

**Keywords:** Japanese linguistics, converb constructions, corpus linguistics, grammaticalization, complex predicates

#### Povzetek

Raziskovalci še vedno nimajo enotnega mnenja o integraciji in avtonomiji delov japonskih konverbnih konstrukcij. V tem članku smo morfološko in sintaktično povezanost v najpogostejših japonskih konverbnih konstrukcijah proučevali s testi, katerih rezultate je mogoče preveriti z uporabo podatkov iz korpusa. Rezultati kažejo, da deli vseh obravnavanih konverbnih konstrukcij izkazujejo morfološko neodvisnost (z izjemo skrajšanih pogovornih oblik). Kar zadeva sintakso, konverbne konstrukcije izkazujejo tako značilnosti neodvisnosti kot enotnosti, pri čemer tvorijo nekakšen kontinuum, kar otežuje njihovo kategorizacijo in razlikovanje sintaktičnih podtipov za vsako od konstrukcij. To nas spominja, da je slovnična zgradba stalen proces, in besedne vrste, ki se ne uvrščajo enakomerno v naše klasifikacije, zahtevajo prilagodljive načine opisovanja.

**Keywords:** japonsko jezikoslovje, konverbne konstrukcije, korpusno jezikoslovje, gramatikalizacija, sestavljeni povedki

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#### 1 Introduction

Compound predicates have no universally accepted definition in linguistics (Amberber et al., 2010, p. 1), so categorizing them may prove even more difficult: it is sometimes problematic to assign specific constructions of a particular language to specific types of compound predicates. Examples of such constructions are Japanese compound constructions with the converb. In Japanese, there are several complex constructions consisting of -te/-de converbs and what are traditionally called auxiliary verbs. Researchers have no unambiguous consensus on their syntactic and functional bondness and typological status. This study analyses the features of unity and autonomy demonstrated by the parts of some of the most widely used converb constructions (Shibatani, 2007, p. 24): progressive -te iru, translocative -te iku, cislocative -te kuru, completive -te shimau, -te miru 'to try doing something', preparatory action -te oku, resultative -te aru and benefactive constructions such as -te ageru. For the first time, such analyses use corpus data rather than introspection and interviews with individual native speakers. The results are also discussed from the perspective of grammaticalization theory. For benefactive constructions, we partially rely on data presented earlier in (Solomkina, 2022).

#### 1.1 Morphological and phonological cohesion

Most researchers agree that Japanese converb constructions consist of two morphologically separate words (Shibatani, 2009, p. 268 inter alia). The main arguments in favor of this view are the possibility of placing particles like *mo* 'too' between the parts of such constructions and the possibility of attaching honorific markers to only one part of the construction. The following examples use the compound predicate *motte kaeru* 'to bring', consisting of the main verb *motsu* 'to hold, to carry' and the auxiliary verb *kaeru* 'to return', in neutral (1a) and honorific (1b) forms:

(1a)本を持って帰る
 hon o mot-te kae-ru
 book ACC carry-CNV come-PRS
 'bring back a book' (Shibatani, 2009, p. 268)

(1b)本を持ってお帰りになる hon o mot-te o-kaeri-ni nar-u book ACC carry-CNV HON-return-CNV become-PRS 'bring back a book' (Shibatani, 2009, p. 268)

In a similar sentence with a verb compound, the whole compound must be marked as honorific (*o-mochi-kaeri ni naru*) to achieve grammaticality:

(2) \*本 を お持ち帰りに なる
 \*hon o o-mochi-kaer-ini nar-u
 book ACC HON-carry-HON-return-CNV Become-PRS
 'to bring a book' (Shibatani, 2009, p. 268)

From the point of view of phonological unity, Japanese converb constructions form a single word. The juxtaposition of two verbs in writing (3a) does not allow us to determine whether we are looking at a converb construction with an auxiliary verb (3c) or two verbs in independent use (3b). Besides, Japanese has spaceless writing, which in itself does not provide information about the morphological and phonological independence of elements. In oral speech, it is possible to distinguish them thanks to pitch contour, but in written speech — only through context. Below, the letters H (high) and L (low) indicate a higher and lower pitch respectively.

- (3a) 買って やった kat-te yat-ta buy- CNV give-PRS
- (3b) 買って やった kat-te yat-ta HL LH '[I] bought [something] and gave [to someone].' (Shibatani, 2009, p. 267)

(3c) 買って やった kat-te yat-ta LH HH '[I] bought [someone something].' (Shibatani, 2009, p. 267)

Thus, the components of the Japanese benefactive construction are generally considered to be two words from a morphological point of view and one word from a phonological point of view (Shibatani, 2007, p. 26).

#### 1.2 Syntactic and functional cohesion

According to Hasegawa's analysis within the Role and Reference Grammar framework parts of converbal complex predicates (including benefactives) are linked on a nuclear level and therefore main and auxiliary verbs share all of their arguments (Hasegawa, 1996).

Shibatani (2009, p. 258) argues that Japanese converbal complex predicate constructions are monoclausal and states that in terms of argument sharing they are similar to serial verb constructions and that probably Japanese and Altaic family converb constructions should not be formally distinguished from serial verb constructions (Shibatani, 2007, p. 21).

Matsumoto (1996) argues that benefactive constructions with *morau* are made up of two words both at constituent structure and functional structure levels (and probably at argument structure as well) consisting of the main predicate and XCOMP. He also states that participial complex motion predicates (including *-te iku* and *-te kuru* constructions) constitute one word at functional structure and argument structure, although they are two words at the constituent structure level.

Nakatani (2013) summarizes both syntactic, phonological, and psycholinguistic evidence regarding the simplicity and complexity of Japanese converb constructions. He concludes that they have characteristics of both complex and simple sentential structures and proposes ways to resolve several issues within the framework of syntactic theory.

#### 2 Methods and corpus data

In the previous section, we have briefly summarized the views that have been expressed about Japanese complex predicates with converbs. These are often based on syntactic tests, which, however, are applied to individual examples and particular types of constructions. In this study we do not intend to redefine these constructs, taking a more empirical approach. We select those tests that can be applied to corpus data and test all constructions on extensive material. The following tests have been selected for our research:

- a) inserting focus particles *mo* ('too'), *nante* ('such as'), *nanka* ('such as'), *sae* ('if only'), etc. between the components of the construction;
- b) replacing the main verb with pro-form soo suru 'to do so';

c) meeting the locality condition for the restrictive particle *shika* 'only / except for' provided the main verb is in the negative form and provided the auxiliary verb is in the negative form.

For focus particles and pro-form tests, our study uses data from the Balanced Corpus of Contemporary Written Japanese (Maekawa et al., 2014) created at the National Institute of Japanese Language in Tokyo. There are 104.3 million word occurrences in the corpus. The corpus covers various genres of written texts ranging from formal to near colloquial texts such as internet blogs and question-and-answer services. For the syntactic test on a rarely occurring construction with the particle *shika* 'only' we use the JaTenTen web corpus (Srdanović et al., 2013) with more than ten billion word occurrences.

Corpus examples were manually checked for homonymic cases and other incorrect output except for cases exceeding 30000 examples in Table 3 (nevertheless, the vast majority of these examples in the sample are correct and provide an overview of the general picture).

#### 3 Results

# 3.1 Inserting focus particles between the parts of converb constructions

A large number of particles with a wide range of meanings are found between the parts of the converb constructions, which confirms their morphological independence. *Mo* and *wa* are the most common particles encountered with all the auxiliaries regardless of their semantics (see Table 1).

Martin (1991, p. 510) lists more than 10 contrastive/focus particles that can intervene between the parts of converb constructions: *wa, mo, sae, nado, nanzo, nanka, nante, gurai, bakari, dakewa, made,* and *demo (datte)*. Besides these particles, we find examples with *sura* and *koso*.

Hasegawa (1996, p. 67) states that "only the particles *wa*, *koso*, *made*, *sae*, and *nante* can appear between the linked nuclei". Our corpus data demonstrates a much wider range of particles, although they are functionally similar to the particles listed by Hasegawa (see Table 1).

(4) 連絡 を 取った ところで 会って すら もらえない
 renraku wo tot-ta tokoro de at-te sura mora-e-na-i
 contact ACC take-PST place COP.CNV meet-CNV even receive-POT-NEG-PRS かもしれない
 kamoshirenai
 maybe

'Even if I contact him, he maybe wouldn't even meet me.'

ې Particle \ <sup>رو</sup>	yaru 'give'	ageru 'give'	kureru 'give'	kudasaru 'give'	morau 'receive'	itadaku 'receive'	iku 'go'	kuru 'come'	miru 'see'	oku 'puť	shimau 'finish'	aru 'exist'	<i>iru</i> 'exist'	Total:
mo	10	9	85	4	34	10	36	54	397	7	2	39	1341	2028
'also' wa 'precisely'	42	4	404	17	91	14	106	231	175	94	2	34	5102	746
bakari 'only'	1	0	0	0	0	0	0	1	0	0	0	0	358	360
sae 'even'	1	1	19	2	1	2	4	0	0	6	2	2	184	224
demo 'even'	14	0	0	0	1	0	17	3	3	0	1	0	74	113
nanka 'things like'	2	0	3	0	3	0	1	0	0	0	0	1	90	100
nado 'etc.'	2	0	0	0	0	0	0	0	0	0	0	0	51	53
made 'till'	15	0	1	0	1	0	0	0	0	0	1	0	0	18
nante 'and the like'	2	0	0	0	2	0	0	1	0	0	0	0	4	9
sura 'even'	0	0	0	0	1	0	0	0	0	0	0	0	8	9
nazo/nanzo 'etc.'	0	0	0	0	0	0	0	0	0	0	0	0	9	9
koso 'in particular'	0	0	0	0	0	0	0	0	0	0	0	1	3	4
dakewa 'only'	0	0	0	0	0	0	0	0	0	1	0	0	1	2
kurai 'approximately'	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total:	90	14	512	23	134	26	164	290	575	108	8	77	7225	3676

Table 1: Particles occurring between the parts of complex converb constructions [BCCWJ]

Despite the evident morphological independence of the converb construction parts in the standard language, contracted colloquial forms are possible with auxiliaries beginning with a vowel: *yondageru* (from *yonde*  *ageru*) 'I will read [to someone outside the speaker's ingroup]', *miteru* (from *mite iru*) 'is watching' etc. (see example (5)). They occur in vernacular speech and clearly demonstrate morphological unity. Regarding it as an indication of an ongoing grammaticalization process aligns with modern theory of grammaticalization (Maysak, 2005, pp. 25-30).

(5) じゃ 私 も 手伝ったげる
 ja watashi mo tetsudat-tageru
 well I too help-CNV.AUX
 'Well, I will help too.'

In further subsections, we move on to tests for syntactic and functional bondness.

#### 3.2 Replacing the main verb with pro-form

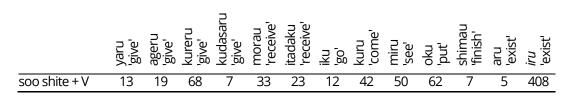
The use of this test in Japanese requires a separate explanation. Usually, the morphological status of a construction is checked by replacing its part with a pro-form, since parts of compound words are anaphoric islands, while parts of phrases are not. So, turning to the example from Spencer (1991, p. 42), we can refer back to *tea* in the sentence *He took* **the pound of tea** *and put two spoonfuls of* **it** *into a teapot*. But it is impossible to say *#He took the* **tea-pot** *and poured* **it** *into the cup* meaning *He poured the tea into the cup*.

However, in Japanese, the possibility of substitution for a pro-form *soo suru* 'to do so' often distinguishes constructions with more and fewer polypredicative properties, for example, forms of the desiderative mood with nominative-accusative and binominal marking of participants, permissive and persuasive (factual) causatives (Matsumoto, 1996, p. 110, p. 142).

Replacing the main verb with *soo suru* as in example (6) turned out to be possible for all auxiliary verbs (see Table 2), which indicates the independence of Japanese converb constructions' parts:

(6) もちろん、そうして あげよう mochiron soo shi-te age-yoo sure so do-CNV give-HOR 'Sure, let me do so.'

Table 2: Benefactives where the main verb can be replaced with soo suru



#### 3.3 Meeting the locality condition for the shika NPI

Researchers have described two syntactic licensing conditions for *shika* 'only / except for' NPIs (negative polarity items). We cite Yamashita's (2008, p. 388) wording based on earlier research:

- 1. *Shika*-NPIs must once be in the c-command domain of the sentential negation morpheme, and
- 2. Negation and *shika*-NPIs must be clause-mates.

This restriction is also known as clause mate condition (Muraki, 1978) or locality condition (Matsumoto, 1996) and it can be a test for syntactic bondness.

The locality condition implementation is illustrated with the following examples from (Shibatani, 2007, p. 26):

- (7a) \*太郎 は 花子 しか 来た ことを 知らなかった \*Taroo wa [Hanako shika ki-ta] koto o shir-ana-katta Taro TOP Hanako only come-PST NML ACC know-NEG-PST 'Taro didn't know that only Hanako came.'
- (7b) 太郎 は 花子 しか 来なかった ことを 知った Taroo wa [Hanako shika ko-na-katta] koto o shit-ta Taro TOP Hanako only come-NEG-PST NML ACC know-PST 'Taro found out that only Hanako came.' (lit.) 'Taro knew that everyone save Hanako didn't come.'
- (7c) 太郎 しか 花子 が 来た ことを 知らなかった Taroo shika [Hanako ga ki-ta] koto o shir-ana-katta Taro only Hanako NOM come-PST NML ACC know-NEG-PST 'Only Taro knew that Hanako came.' (lit.) 'Everyone save Taro didn't know that Hanako came.'

Thus, in converb constructions there are two possibilities for negation placement: in the main verb and the auxiliary. Hidaka (2018, p. 30) in his study of *-te iku* and *-te kuru* constructions points at the case when the negation marker belongs to the main verb as less grammaticalized (8), while the case when the negation marker is attached to the auxiliary is viewed as the more grammaticalized stage of the construction development (9) (he gives examples with NPIs *dokomo* 'nowhere' and *mattaku* 'at all'). Hidaka regards examples like (9) as subject to restructuring and with an aspectual meaning (more on grammaticalization vs. restructuring and why one does not necessarily imply the other, see Haspelmath (1998)):

- (8a) どこも 走らないで 行った
  dokomo hashir-ana-ide it-ta
  nowhere run-NEG-CNV go-PST
  'l went everywhere without running.'
- (8b) (?)どこも 走って 行かなかった dokomo hashit-te ik-ana-katta nowhere run-CNV go-NEG-PST '[I] I did not go anywhere running.' (intended)
- (9a) \*全く 消えないで 行った
  mattaku kie-na-ide it-ta at all vanish-NEG-CNV go-PST ([] haven't vanished at all.' (intended)
- (9b) 全く 消えて 行かなかった mattaku kie-te ik-ana-katta at all vanish-CNV go-NEG-PST '[]] haven't vanished at all '

In Table 3, we observe auxiliary verbs sorted by a decrease in the proportion of examples with a negative main verb. Thus, we can assume that they are sorted by increasing the degree of grammaticalization of the construction (see also Figure 1).

Negation marker placement	Negative main verb <i>e.</i> g. shika V-naide V	Negative auxiliary verb e. g. shika V-te V-nai	Total
oku	34.1% (44)	65.9% (85)	129
shimau	33.3% (2)	66.7% (4)	6
yaru	31.6% (77)	68.4% (166)	243
miru	4%(1)	96% (24)	25
ageru	1.2% (1)	98.8% (85)	86
itadaku	1.1% (1)	98.9% (88)	89
iru	0.2% (220)	99.8% (~105200)	~105420
kureru	0.2% (8)	99.8% (4757)	4765
iku	0.1% (2)	99.9% (2469)	2471
morau	0.1% (1)	99.9% (2010)	2011
kuru	~0% (5)	~100% (~30702)	~30707
aru	0% (0)	100% (414)	414
kudasaru	0% (0)	100% (47)	47

Table 3: NPI item *shika* in converb constructions (JaTenTen)

#### oku shimau yaru miru ageru itadaku iru kureru iku morau kuru aru kudasaru

less grammaticalized

more grammaticalized

Figure 1: Degree of grammaticalisation of converb constructions according to the *shika*-test

What creates such variation in the use of *shika* across converb constructions? Indeed, examples with negation marking the auxiliary and the main verb can be very similar in meaning and context. Compare the examples (10) and (11).

(10) ただ 3000 円 しか もって 行かなかった ので、 何も 買う tada sanzen en shika mot-te ik-ana-katta node nanimo ka-u but 3000 yen except hold-CNV go-NEG-PST because.of nothing buy-PRS すっごく 残念 ことが できなくて な 結果で ただ koto ga deki-na-kute suggoku zannen na kekka de tada NML NOM can-NEG-CNV very regret PRT result COP.CNV just

歩き回った だけ でした が arukimawat-ta dake desh-ita ga walk.around-PST only COP-PST but 'However, as I only had 3000 yen to spend, I couldn't buy anything, which was a great disappointment, so I just walked around.'

(11) 土曜日 って、ゆうちょ の ATM9 時 からな h だ ね。 ATM ku ji doyoobi tte yuucho no kara na n da ne Saturday TOP Post.Bank GEN ATM 9 hour from ATR NML COP.PRS PRT 7 時 半 からだ と 思って、 1000円 しか shichi ji han kara da en shika to omot-te sen seven hour half from COP.PRS QUOT think-CNV 1000 yen except 持たないで 行ったら 自動ドア 開かない jidoodoa mot-ana-ide it-tara ak-ana-i hold-NEG-CNV automatic door go-COND open-NEG-PRS

'On Saturdays, Japan Post ATM opens at 9 am. I thought it was 7.30 am, so I went there with only  $\pm$ 1000, but the automatic door wouldn't open.'

(10) is one of two examples of *shika+V-naide+iku*, and there is less than 1% of *shika+V-naide+kuru* examples, which pretty much contradicts three types of *-te iku* and *-te kuru* postulated by Hidaka (not reanalysable type, optionally reanalysable type and mandatorily reanalysable type) being in active use (Hidaka, 2018).

As for benefactive auxiliary verbs (except for the more broadly functional *yaru*), constructions with a negative main verb may occur seldom for purely semantic reasons. Thus, according to Shibatani (1996, p. 160), these constructions must describe the transfer of some abstract or concrete good, which makes the occurrence of contexts for negation marker in a main verb quite uncommon (see the single example of *shika+V-naide+morau* (12)). Constructions with benefactive verbs also seem to be more grammaticalized in terms of increased obligatoriness and paradigmaticization (on this issues see Lehmann (2015)). And while Kikuta (2018) proposes three distinct types of *-te morau* constructions, two monoclausal and one biclausal, according to the locality condition 99,9% of examples with *morau* function as a syntactic unity.

(12) 米 を 茶碗 に 半分 づつ しか 食べないで もらいたい な komewo chawan ni hanbun dzutsu shika tabe-nai-de mora-ita-i na rice ACC rice.bowl DAT half each except eat-NEG-CNV receive-DSD-PRS PRT You should eat only half a bowl of rice each.'

に 評判 が (13) 娘 は あまり 良くなくて、 ソーセージ musume ni wa hyooban ga amari yo-kuna-kute sooseeji daughter DAT TOP reputation NOM not.much good-NEG-CNV sausage しか 食べて もらえなかった shika tabe-te mora-e-na-katta except eat-CNV receive-POT-NEG-PST '[My] daughter didn't really like [this meal] so she only ate sausage.'

As for the auxiliaries that demonstrate more independence in converb constructions, such as *oku*, *shimau* and *yaru*, their relative lack of bondness is likely related to the fact that *shika+V-naide+V* and *shika+V-te+V-nai* are often different in meaning. Compare the two following examples with *-te oku*:

(14) 1杯 しか 買わないで おいて 良かった ・・ shika yo-katta kaw-ana-ide o-ite ippai one.glass except buy-NEG-CNV put-CNV good-PST 'It's a good thing I only bought one glass ...' (foreseeing the consequences) (15) 買い置きする と 飲みすぎる ので、 その 日 に 飲む 分 kaioki-sugi-ru to nomi-sugi-ru node sono hi ni nom-u bun stock-EXC-PRS when drink-EXC-PRS because that day DAT eat-PRS amount くらい しか 酒 を 買って おかない kurai shika sake WO kat-te ok-ana-i about except alcohol ACC buy-CNV put-NEG-PRS 'If I buy a lot, I end up drinking too much, so I only buy enough to drink on that day.'

In example (14) the author thinks about the consequences in advance and doesn't buy another glass of alcohol for that reason (*kawanaide oku*). While in example (15) the author refrains from buying and keeping alcohol in stock (*katte okanai*).

#### 4 Conclusion

We expand the list of particles that can be encountered between the parts of Japanese constructions to as many as 14 (adding *koso* 'in particular' and *sura* 'even'). Their usage might vary depending on the semantics of each converb construction, still, they all are contrastive/focus particles. In vernacular speech auxiliaries starting with a vowel can form a morphological unity with the converb, functioning like an affix, which is the sign of their ongoing grammaticalization.

The independent character of all the auxiliary verbs under consideration is also manifested in the possibility of replacing the semantic verb with a pro-form *soo suru* 'to do so'.

Regarding the fulfillment of the locality condition for *shika*, auxiliary verbs form a sort of continuum from more to less integrated. This implies the need for a flexible approach that takes into account the features of each individual auxiliary verb and the gradualness of the grammaticalization process. See the suggestion in Haspelmath (1998) to denote intermediate parts of speech in formal models, for example from ordinary verbs (V<sub>1.0</sub>) to preposition-like verbs (V<sub>.8</sub>/P<sub>.2</sub>), verb-like prepositions and ordinary prepositions (P<sub>1.0</sub>) (which however does not need to be taken literally):

V<sub>1.0</sub> >V<sub>.9</sub>/P<sub>.1</sub>>V<sub>.8</sub>/P<sub>.2</sub>>...> V<sub>.1</sub>/P<sub>.9</sub>>P<sub>1.0</sub>

### Abbreviations

- ACC accusative ATR attributive form AUX auxiliary CNV converb
- COND conditional form
- COP copula
- DAT dative
- DSD desiderative:
- EXC excessive
- GEN genitive
- HON honorific
- HOR hortative
- NEG negation
- NML nominalizer
- NOM nominative

- POT potential
- PRS present tense
- PRT particle
- PST past tense
- TOP topic

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