Valence Behavior of an IncepOper\textsubscript{1} Verb in Japanese

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Abstract

This paper examines valence behavior of the Japanese light verb \textit{hajimeru} ‘begin’, which in terms of Meaning-Text theory can be considered a lexical function verb of the type IncepOper\textsubscript{1}. The verb was studied in construction with predicate nouns (450 occurrences in news texts). The results confirm that a noun’s first argument is transferred to \textit{hajimeru}, but its second argument, if present, is not, nor are sentential complements. Other arguments may occur with either \textit{hajimeru} or the noun more or less equally. However, adjuncts of place and especially time are nearly always transferred to the verb.

Keywords

Japanese, lexical functions, IncepOper\textsubscript{1}, argument transfer

1 Case marking and argument transfer

Among lexical functions (LF) introduced in Meaning-Text theory there are several types of verbs which combine with an argument-taking noun (N) and have specific arguments of that noun transferred to them. Such constructions presumably exist in all languages where verbs are distinct from nouns, and indeed they are easily found in Japanese.

What makes them all the more prominent are the two patterns of case marking in Japanese: verbal (marking of dependents of a verb) and nominal (marking of dependents of a noun). As summarized by Yo Matsumoto (Matsumoto, 1996, 109), “all NPs and PPs ... that are immediately dominated by an NP receive genitive marking \textit{no} in addition to the verbal case marking ... with some adjustments made” (in particular, the nominative \textit{ga} and the accusative \textit{o} drop out, and the dative \textit{ni} is replaced by the allative \textit{e}). In (1a) below the arguments of the verb \textit{shiharau} ‘pay’ have the verbal marking, in (1b) the arguments of the noun \textit{shiharai} ‘payment’ have the nominal marking, and (1c) is an example of the “N + LF verb” construction: the dative argument of the noun is transferred to the verb, while its object is marked by the genitive \textit{no}. 

\begin{enumerate}
\item \textit{shiharau} ‘pay’
\item \textit{shiharai} ‘payment’
\item \textit{N + LF verb} construction
\end{enumerate}
The most common of the Japanese LF verbs, Oper_{12} suru ‘do’, was described in terms of argument transfer in (Grimshaw, Mester, 1988). Among the verbs used to present an alternative analysis in (Matsumoto, 1996) was hajimeru ‘begin’, which will be the subject of this paper.

Matsumoto pointed out that light verb constructions have much in common with raising and control constructions, and proposed that therefore like rising and control they should be accounted for without argument transfer. We take the complementary view, held by Z. Shalyapina (Shalyapina, 2001), that raising and control may be seen as argument transfer, or valence inheritance. Accordingly, dependents with nominal case marking are considered arguments or adjuncts of the noun N, and dependents with verbal case marking are considered transferred to hajimeru.

The verb was studied using a corpus of news texts compiled by A. Kostyrkin (Institute of Oriental Studies, Russian Academy of Sciences) as part of the experimental Japanese-Russian machine translation project JaRAP (Shalyapina et al., 2004). Not measured in number of sentences, at present the corpus contains 58,000 texts, approximately 28 million characters. The corpus yielded 450 occurrences of the “N + hajimeru” construction in the active voice and 17 examples in the passive.

There also exists an intransitive IncepFunc_{0} verb of common origin with hajimeru. At nearly 2,000 instances this verb, hajimaru ‘begin’, vastly outnumbers hajimeru, but with only the subject valence its syntax is comparatively simple and not discussed in this paper.

2 Arguments and adjuncts of hajimeru

2.1 Verbal noun

Unlike suru, which can attach directly to most verbal nouns and is treated by some grammars as a verbalizing suffix, hajimeru is clearly a separate word. Only in six examples N was attached to hajimeru without a particle, and all six were headlines. Absence of particles is characteristic of the newspaper headline style in Japanese, much as omitting articles is in English:
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(2) 20 sai otoko, hankō mitomeru kyōjutsu hajimeru
20 year.of.age man crime admit confession begin
‘Man aged 20 begins confession admitting guilt’

Usually a verbal noun is the direct object of hajimeru, marked with the accusative particle o:

(3) Wi-Fi nintei no shutoku tetsuzuki o seishiki-ni hajimeru mae-ni ...
WiFi certification Gen obtaining procedure Acc officially begin before
‘... before officially beginning the procedure of getting WiFi certification’

In the passive voice hajimeru changes from IncepOper1 to IncepFunc1, and N becomes its subject marked with the nominative ga (4a). This distinguishes the passive from the other forms with a similar suffix -rare, which take accusatives: the honorific ((4b), all five occurrences in the same news item), and potential, sometimes considered a homonym but called the potential passive in (Martin, 1988, 297), 23 examples.

(4a) Butai hensei ga hajimerare, ...
corps formation Nom begin:Pass.Inf
‘Formation of a corps was begun’

(4b) Muika ni otoko-no o-ko-sama o shussan sareta ... Kiko-sama wa, nanoka kara Aiiku byōin no koshitsu de honkakuteki-ni junyū o hajimerareta.
6th.day Loc male child:Hon Acc birth do:Hon.Pf Kiko Hon Top 7th.day Abl Aiiku hospital Gen private.room Loc regularly breastfeeding Acc begin:Hon.Pf
Princess Kiko, who gave birth to a son on the 6th, began regular breastfeeding on the 7th in a private room at the Aiiku Hospital.

(4c) Suki-na shōgun de gēmu o hajimerareru no ga tokuchō.
favorite general Inst game Acc begin:Pot Compl Nom feature
‘The special feature is being able to begin the game as your favorite general.’

It is possible for both the accusative o and the nominative ga to be replaced by a focus particle. For N in the accusative two such particles were encountered: mo ‘even, too’ – 23 occurrences and the topic marker wa – eight occurrences. For N in the nominative there was only the topic marker, but with a greater relative frequency, five examples out of 17:

(5) Kono hi no yotei wa shukuga ibento dake de, jissai-no hanbai wa
this day Gen plan Top celebration event only be:Inf real sale Top
yoku 1 gatsu 30 niti ni hajimeru.
next 1 month 30 day on begin
‘Only a celebration is planned for this day, and [they] will begin the actual sale on next January 30th.’

(6) Karera no shinkon seikatsu wa, byoin de hajimerareru koto ni natta.
they Gen honeymoon life Top hospital Loc begin:Pass Compl Dat become:Pf
‘So it happened that their honeymoon was begun in a hospital.’

In contrast to the above constructions, in 27 examples (plus two in the passive) N governs hajimeru, appearing as the head of a relative clause. It is remarkable that in three occurrences other words intervene between N and the verb:
Two cleft sentences were also encountered, one in the active voice and one in the passive:

(8) Tōkyō-to suidō kyoku ga raishun kara hajimeru no wa “mimamori sābisu”
Tokyo city drain bureau Nom next spring Abl begin Compl Top watching service
What the Tokyo Metropolitan Bureau of Waterworks will begin next spring is the
“Supervision Service”.

(9) Seito-tachi no kokoro no henka ni kizukō to hajimerareta no ga
student:Plur Gen soul Gen change Dat notice:Hort Quot begin:Pass.Pf Compl Nom
“The exchange of private diaries [is what] was started in order to be aware of changes
in the students’ feelings.’

2.2 First argument

The typical role of the first argument of N is the subject of hajimeru. The six headlines
mentioned in the previous section all contain a subject attached directly to the verb, as can be
seen in example (2). In 47 instances it is marked with the nominative ga, as in example (8).
Like the previous examples, this nominative particle can be replaced by the topic marker wa –
39 occurrences, or the particle mo – one occurrence:

(10) Makino-chan mo 4 gatsu kara Miyakojima de hitorigurashi o hajimeru.
Makino little too 4 month Abl Miyakojima Loc living alone Acc begin
‘Little Makino, too, begins to live alone in Miyakojima in April.’

The first argument of N also appears as the head of a relative clause, governing hajimeru, in
15 instances:

(11) Konshū kara honkaku rongi o hajimeru seifu
this autumn Abl serious discussion Acc begin government
‘The government, which will begin serious discussion this autumn’

However, most examples have ellipsis of the subject. In 36% of them hajimeru is located
within a subordinate clause, while the main clause has a topic coreferent with the zero first
argument of hajimeru (and thus, N):

(12) Dōsha wa 8 gatsu 22 nichi kara unkō o hajimeru yotei datta ga...
the firm Top 8 month 22 day Abl service Acc begin plan be:Pf though
‘Although the firm was planning to begin [air] service on August 22 ...’

In the passive voice the first argument of N cannot be transferred into the subject position
because it is occupied by N itself. It is present only in three examples – once in (6) as a
genitive complement of the noun, and twice as an indirect object of hajimeru marked with a
complex particle ni-yotte ‘by’:
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(13) **Rido Busse kyōju ni-yotte 1977 nen ni hajimerareta katsudō desu.**


‘This is the activity that was started in 1977 by Professor Rido Busse.’

One interesting example where the first argument is not transferred to *hajimeru* was also found in the active voice. The argument is marked with *ni-yoru* ‘by’, the adnominal form of *ni-yotte*, which means that in this sentence the argument is not transferred to *hajimeru*:

(14) **Kaneko Genjiro chiiji wa “gaibu iinkai ni-yoru chōsa o sakkyū-ni teikyō mo hajimeru.”**

Kaneko Genjiro governor Top external committee by investigation Acc urgently offer too begin

‘[We] will begin investigation by the External Committee urgently’, said Governor Genjro Kaneko’.

The first argument of *chōsa* ‘investigation’ is *iinkai* ‘committee’, and the subject of *hajimeru* is not overtly expressed. It can be interpreted as coreferent with the topic of the main clause, *Kaneko*, or understood as the authorities he represents. In either case *hajimeru* in this example seems to function as IncepFunc0 or maybe even CausFunc0.

### 2.3 Second argument

When N has a second argument it is usually realized as a genitive complement – 46 examples, including one with coordination:

(15) **Mata dōsha de wa 12 gatsu tsuitachi yori, chūgokugo ban, kankogugo ban no also the.firm Instr Top 12  month 1st.day Abl Chinese version, Korean version Gen teikyō mo hajimeru.**

offer too begin

‘The firm will also begin offering Chinese and Korean version starting on January 1st’

In several occurrences, however, *hajimeru* becomes IncepOper12, as the second argument is transferred from the noun and appears as the topic of the whole sentence, marked with the focus particle *mo* in one example and with the thematic *wa* in four:

(16) **Nattō wa shukka 2-3 nichi mae-ni, ... seizō o hajimeru.**

natto Top shipping 2-3 day before manufacture Acc begin

‘As for fermented natto beans, [we] begin preparation 2-3 days before shipping.’

Close to these are three even more remarkable examples where the second argument of N governs *hajimeru* in a relative clause:

(17) **Nissan ga chūgoku de banbai o hajimeru shingata sha**

Nissan Nom China Loc sale Acc begin new.model car

‘the new model car which Nissan begins selling in China’

The reason why the kind of complement discussed in this section is rarely transferred to *hajimeru* in the active voice seems quite obvious. A surface double-accusative constraint operates in Japanese, and N is already marked in accusative. But it is worth noting that in the passive voice, when technically there are no other accusatives in the sentence, case marking
on the complements is also nominal. Out of 17 occurrences a second argument of N is present in five and always retained by the noun – as a genitive complement in three instances, including (9), and in apposition in two, including (4a). It seems that what matters is the role of the direct object of *hajimeru* (still occupied by N, even if marked with nominative) rather than its surface case marking.

### 2.4 Other arguments

Extremely broad meaning allows *hajimeru* to combine with verbal nouns with different valence frames. All of them possess a first valence and most of them a second valence which can be realized as a genitive complement. But other than these two arguments no valence seems to be common to any considerable class of the nouns which combine with *hajimeru*. There is a variety of case marking but very few occurrences of each type of arguments, which makes any generalizations difficult.

One thing that draws attention, however, is that often these few occurrences show both the verbal and the nominal marking. Examples include counteragent marked with the comitative particle *to* – six times transferred to the verb, and once followed by the genitive *no* and attached to N:

(18a) Kōsei rōdō shō wa kongo rōshi no kankeisha-ra to kyuōi mo hajimeru.  
‘From now on the Ministry of Health, Labour and Welfare will also begin consultations with representatives of labour and management.’

(18b) Bei gikai kankeisha to no iken kōkan mo hajimeru kangaе da.  
‘The idea is also to begin an exchange of opinions with the US Congress.’

Complex postpositions such as *ni-yoru / ni-yotte* also have different forms when attaching to verbs and nouns. For those of them which are derived from verbs the two forms correspond respectively to the gerund and the adnominal form, as in (14) and (12) or in the following pair of examples:

(19a) Jiki bājon ni-mukete dōsha wa, dono-yō-na Vista taiō kinō o seihin ni toriireru ka no kentō o hajimeru yotei da.  
‘On the threshold of a new version, the company plans to begin considering what Vista-compatible functions to adopt into its products.’

(19b) Dōshō wa yasei fukki ni-muketa shiken hōchō o, 08 nen kara hajimeru yotei da.  
‘Starting from 2009 the Ministry plans to begin experimental releasing of birds aimed at returning them to the wild.’
Two occurrences of the goal argument with this marker were retained by N and one transferred to the verb. Another complex postpositional idiom, o-taishō-ni / o-taishō-to-suru ‘aimed at’, was encountered once in each position:

(20a) Chūgaku no rika kyōin o-taishō-ni, jikken ya kansatsu gakushū no middle school Gen science teacher aimed-at experiment and observation learning Gen
shidō ryoku o kōjō sasere kenshū mo hajimeru.
supervise power Acc progress do:Caus training too begin
‘[They] will also begin training designed for teachers of science in middle school to improve their ability to supervise experiments and observation learning.’

(20b) KDDI Amerika wa 15 nichi, Nihonjin o-taishō-to-shita keitai denwa sābisu o KDDI America Top 15 day Japanese person aimed at mobile phone service Acc
kotoshi 10 gatsu kara Beikoku nai de hajimeru to happyō shita.
this year 10 month Abl US inside Loc begin Quot announcement do:Pf
‘On 15th KDDI America announced that next October it will begin in the US a mobile phone service designed for the Japanese.’

For other kinds of arguments only one variant was found. All six occurrences of the complex postposition ni-tusite were adverbial, as in example (12). Both occurrences of the source marker kara had nominal marking:

(21) Karaoke gyōsha kara no karaoke shiyo ryo choshu o ... hajimeru.
karaoke seller from Gen karaoke use fee collection Acc begin
‘[They] will begin collecting from karaoke sellers a fee for using karaoke.’

2.5 Adjuncts and clausal complements

A syntactic dictionary (Koizumi et al., 1993) describes hajimeru as having two meanings: ‘begin something for the first time’ and ‘resume a routine’, and suggests that only the first meaning, but not the second, possesses locative and temporal valences. This polysemy can be argued against, since technically a time and place can be specified for any activity, whether new or continued.

Nevertheless the “first-time meaning” seemed to be predominant (probably due to the fact that the corpus consists of news texts), and 60% of all examples had a temporal adjunct. Of them in 76 instances the adjunct was marked with the ablative particle kara, as in (10)-(12), and in 48 instances with the dative/locative ni, as in (7) and (13), sometimes followed by focus particles. Often there was no case marking at all, since most Japanese temporal nouns can function as adverbs, as nichi ‘day’ in (20b) above. In three instances the adjunct governed hajimeru as the head of a relative clause:

(22) Shōhisha muke-no hanbai o hajimeru 2007 nen 1 gatsu matsu made ...
customer towards sale Acc begin 2007 year 1 month end by
‘... by the end of January 2007, when [Ericsson] will begin sales to consumers’

In one example hajimeru and N both seem to have temporal adjuncts. The verbal adjunct heads a relative clause similar to (22), and the nominal adjunct is marked with the genitive no:
(23) *Ooku-no kigyo ga shinnen no shigoto o hajimeru yokka*  
many business Nom new.year Gen work Acc begin 4th.day  
‘The 4th, when many businesses begin new year’s work’

Adjuncts of place clearly favored adverbial position. There were 21 instances of them transferred to *hajimeru* and marked with the locative particle *de*, as in (17), but only two occurrences of nominal marking with *no*:

(24) *Kono-tabi, Nihon de no toshi o hajimeru ni-atatte ...*  
now Japan Loc Gen investing Acc begin as  
‘Now, as [we] begin investing in Japan ...’

Conversely, clausal complements were almost never transferred to *hajimeru*. For 50 relative clauses headed by *N* there was only one clause with the quotation conjunction *to* governed by the verb:

(25) “...” *to kohaku o hajimeru Nakazawa*  
“...” Quot confession Acc begin Nakazawa  
‘... – began Nakazawa his confession.’

Clausal complements of *N* tend to be long, often longer than the main clause, even to the point of affecting word order. The normal word order in Japanese is SOV, but in six instances it was OSV:

(26) *Nihon ni sekkin suru taifū no naibu o kō-seinō rēdā de chijō kara kankoku shi,*  
Japan Dat approach do typhoon Gen inside Acc advanced radar Inst ground Abl observation do:Inf  
*bofū o motarasu taifū no mekanizumu kaimei o mezasu kenkyū o,*  
storm Acc bring typhoon Gen mechanism explanation Acc pursue research Acc  
*Nagoya-dai to Kyōtō-dai no kenkyō chīmu ga konka kara hajimeru.*  
Naboyau.university and Kyoto.university Gen research team Acc this.summer Abl begin  
‘This summer a research team from the Nagoya and Kyoto Universities will begin examining the inside of typhoons approaching Japan from the ground with a sensitive radar, hoping to explain the mechanism of typhoons which bring storms.’

The other examples had a similar structure, starting with the longer clauses and putting the shorter groups near the verb. Evidently the clause modifying the direct object in these sentences is too long to be placed between the subject and the verb.

3 Conclusion

Being an IncepOper verb, *hajimeru* demonstrates the expected syntactic behavior taking the noun *N* as the direct object and the noun’s first argument as the subject. Since the position of the direct object is thus occupied, the second argument of *N* cannot take the accusative and usually keeps its nominal marking or appears in apposition to *N*. It is remarkable, furthermore, that accusative marking does not appear in the construction with *hajimeru* in the passive voice, in spite of there being no other accusative on the surface. Clausal complements almost exclusively attach to *N* as relative clauses. Other arguments can be transferred to *hajimeru* optionally; if there are any rules governing this choice, more data is necessary to uncover them. Locative and temporal adjuncts are usually transferred to the verb.
Bibliography


