
Removing Accusative Marked Object from Verbal Root: A Case of Motion Verb in Japanese*

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1 Introduction

The aims of this paper are to show that *o*-marked NPs which introduce Path or Situation with motion verbs are arguments, not adjuncts. Furthermore, based on the observation, this paper claims that such internal arguments are not introduced by a verb, rather introduced by a separate functional head just like external arguments.

The organization of this paper is as follows. Section 2 presents the distribution of *o*-marked NPs. Section 3 provides pieces of evidence which show *o*-marked NPs are arguments. Section 4 shows that the previous approach that dealt with similar data does not account for the current Japanese data. Section 5 provides the proposal. Section 6 concludes this paper.

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2 Data

2.1 Three types of *o*-marked NPs in Japanese

This section showcases the distribution of apparent *o*(accusative)-marked NPs in Japanese, which is very different from English accusative-marked NPs. In English, accusative-marked NPs are directly selected by the verb and interpreted as a direct object as in (1).

- (1) a. Kazu read a book.
b. Kazu walked the dog.

On the other hand, Path NPs of motion verbs are normally marked with prepositions.

- (2) a. walk along the river
b. walk across the road
c. walk over the hill

However, in some special cases, the Path NPs used with motion verbs are realized as direct objects as in (3)

- (3) a. pass the station
b. cross the street
c. walk over the hill

This is the same in Japanese. As in (4), normally *o*-marked (accusative) NP is interpreted as the theme direct object in Japanese.

- (4) Kazu-wa hon-o yon-da.
Kazu-TOP book-ACC read-PAST
'Kazu read the book.'

As in the English example in (3), Path and Situation NPs used with unergative motion verbs can be marked with *o*-, as shown in (5a,b). In (5a), the *o*-marked NP is Path NP and in (5b), the *o*-marked NP is Situation NP. Importantly, unlike the English examples in (2), *o*-NPs cannot be replaced by the PPs.

- (5) a. Kazu-wa michi- $\{o/*de\}$ arui-ta.
 Kazu-TOP street- $\{ACC/ON\}$ walk-PAST
 ‘Kazu walked the street.’
 b. Kazu-wa ame-no-naka- $\{o/*de\}$ dekake-ta.
 Kazu-TOP rain-GEN-middle- $\{ACC/ON\}$ go.out-PAST
 ‘Kazu went out in the middle of rain.’

Furthermore, in Japanese, motion verbs do not have their causative counterpart, which is possible in English, as in (6).

- (6) a. Kazu walked on the street.
 b. Kazu walked her dog.
- (7) a. Kazu-wa michi-o arui-ta.
 Kazu-TOP street-ACC walk-PAST
 ‘Kazu walked on the street.’
 b. *Kazu-wa inu-o arui-ta.
 Kazu-TOP dog-ACC walk-PAST
 ‘Kazu walked her dog.’

The issue this paper addresses is the status of *o*-marked NPs used with motion verbs, such as *aruk*-‘walk’, *hashir*- ‘run’, *de*- ‘come out’, and this paper shows that *o*-marked NPs used to express Path with the verbs like above are arguments of the verb.

3 Diagnosing argumenthood of Path-NPs

This section presents the argumenthood of *o*-marked path NPs with Case Marker Dropping (Mihara 1994), Quantifier Floating (Miyagawa 1989), Double *o*-Constraint (Harada 1973, Shibatani 1978, Hiraiwa 2002, Poser 2002, among others) and Argument Ellipsis (Sakamoto 2019).

3.1 Case Marker Dropping

In Japanese, arguments are normally marked with structural Case, which realize as morphological case *ga*, *o*, *ni*. These morphological case markers, can be phonetically dropped, especially in colloquial Japanese. As in (8), *o*-on theme NPs can be dropped but the postpositions cannot be dropped, as in (8c).

- (8) a. Ano-hon- $\{o/\emptyset\}$ doko oi-ta-no?
 that-book- $\{ACC/\emptyset\}$ where put-PAST-Q
 ‘where did you put that book?’

- b. Jiro-no koto- $\{o/\emptyset\}$ sitte-ru?
 Jiro-GEN thing-ACC know-PRES
 ‘Do you know anything about Jiro?’
- c. Kobe- $\{kara/*\emptyset\}$ kita-no?
 Kobe-FROM come-Q
 ‘Did you come from Kobe?’

Now let us turn to the case of *o* following the Path NP. As shown in (9), *o*-of Path NP used with the motion verbs can be dropped.

- (9) Ken-wa sono-michi $\{-o/\emptyset\}$ arui-ta-tte
 Ken-TOP that-street-ACC walk-PAST-TE
 ‘Ken walked the street.’

As shown in (9), both *o* of Path NP and *o* of theme NP can be a target of Case Marker Dropping. This means that *o* used with Path is a morphological case, and thus, Path NP used with the motion verb is an argument, as *o*-marked NPs in (8a, b) are arguments.

3.2 Quantifier Floating.

This subsection looks at behaviors of *o*-marked Path-NP in Quantifier Floating. As shown in (10), the quantifier is allowed to be scrambled out of a complex formed with Quantifier and host NP.

- (10) a. Gakusei-ga san-bon-no biiru-o non-da.
 student-NOM three-cl-GEN beer-ACC drink-PAST
 ‘Students drank three bottles of beer.’
- b. Biiru-o gakusei-ga san-bon non-da.
 beer-ACC student-NOM three-CL drink-PAST
 ‘Students drank three bottles of beer.’

On the other hand, if the host NP is in a PP, scrambling out is impossible unlike (10).

- (11) a. Gakusei-ga san-kasyo-no honya-de hon-o kat-ta.
 Student-NOM three-CL-GEN bookshop-AT book-ACC buy-PAST
 ‘Students bought books at three bookshops.’
- b. *Gakusei-ga honya-de san-kasyo hon-o kat-ta.
 Student-NOM bookshop-AT three-CL book-ACC buy-PAST
 ‘Students bought books at three bookshops.’

Now let us check the same scrambling with *o*-marked Path NP. As in (12), *o*-marked Path NP, which is modified by the quantifier can be scrambled out.

- (12) a. Saku-wa ni-kasyo-no kooen-o arui-ta.
 Saku-TOP two-CL-GEN park-ACC walk-PAST
 ‘Saku walked in two parks’
 b. Kooen-o Saku-wa ni-kasyo arui-ta.
 park-ACC Saku-TOP two-CL walk-PAST
 ‘Saku walked in two parks.’

Again the grammaticality of the sentence in (12) shows that *o*-marked Path NPs used with motion verb are parallel to *o*-marked theme NPs. Therefore, it is natural to analyze *o*-marked Path NPs are arguments just like *o*-marked theme NPs.

3.3 Promotion to subject in passive sentences

This section looks at a behavior of *o*-marked NPs in passivized contexts. In passivization, an object of the active sentence is promoted to subject position and marked with nominative. In (13b), the *o*-marked theme object *Haru* is promoted to subject.

- (13) a. Saku-wa Haru-o ie-ni yon-da.
 Saku-TOP Haru-ACC his.house-TO invite-PAST
 ‘Saku invited Haru to his home.’
 b. Haru-wa Saku-ni ie-ni yob-are-ta.
 Haru-TOP Saku-TO his.house-AT invite-PASS-PAST
 ‘Haru is invited to Saku’s house.’

Promotion to the subject is also possible with the *o*-marked Path NPs. In (14a), the Path NP, *michi* ‘street’, is marked with *-o* and is interpreted as Path. This NP can be promoted to subject in the passivized sentence in (14b).

- (14) a. Saku-wa tachiirikinsi-no michi-o arui-ta.
 Saku-TOP off.limit-GEN street-ACC walk-PAST
 ‘Saku walked on off-limit street.’
 b. Tachiirikinsi-no michi-ga Saku-ni-yotte aruk-are-ta.
 off.limit-GEN street-NOM Saku-BY walk-PASS-PAST
 ‘(lit.) Off-limit street was walked by Saku.’

This shows that the *o*-marked Path NP is originally object in the active counterpart. Thus, *o*-marked Path NPs are argument.

3.4 Double-*o* Constraint

This section looks at Double-*o* Constraint (*DoC*. cf Harada 1973, Shibatani 1978, Hiraiwa 2002, Poser 2002 among others). *DoC* is one of the constraints on structural case, and hence, a constraint of arguments. The *DoC* has two variants. One is a weaker version of *DoC*, which constrains the occurrence of multiple *o* in the same clause at the level of pronunciation. The other is a stronger version of *DoC*, which constrains the occurrence of multiple accusative case bearers in the same clause at the level of derivation. The prototypical cases where stronger versions are observed are causative. An instance of causative in Japanese is as shown in (15), where cause is marked by either *-ni* or *-o*.

- (15) Saku-wa Kazu- $\{ni/o\}$ kaimono-ni ik-ase-ta.
 Saku-TOP Kazu-DAT/ACC shopping-TO go-caus-PAST
 ‘Saku had Kazu go shopping.’

One of the factors of selection of the case marking of causee is whether the sentence has another *o*-marked NP. If the caused event has another *o*-marked NP, the causee cannot be marked with *-o* due to the *DoC*, as shown in (16).

- (16) Saku-wa Kazu- $\{ni/*o\}$ aisukureemu-o kaw-ase-ta.
 Saku-TOP Kazu DAT/ACC ice cream-ACC buy-CAUS-PAST
 ‘Saku had Kazu buy ice cream.’

Note that, If the *o*-marked NPs are situation, like *ameno-naka-o* ‘in the middle of rain’, the effect turns to be much weaker as in (17).

- (17) Saku-wa Kazu- $\{ni/?o\}$ ameno-naka-o dekake-sase-ta.
 Saku-TOP Kazu-DAT/ACC in.the.middle.of.rain-ACC go-CAUS-PAST
 ‘Saku had Kazu go out in the middle of rain.’

Now, let us examine the cases of *o*-marked Path NPs. The same effect as in (16) is observed with the sentence in (18).

- (18) Haru-wa Saku- $\{ni/*o\}$ rooka-o hashir-ase-ta.
 Haru-TOP Saku-DAT/ACC corridor-ACC run-CAUS-PAST
 ‘Haru had Saku run on the corridor’

The DoC data, further, show that *o*-marked Path NPs are accusative case marked, and therefore, they are argument.

3.5 Argument ellipsis

Finally, this section looks at the instance of Argument Ellipsis (cf. Oku 1998, Saito 2007, Takashashi 2008, Sakamoto 2019 among others) with *o*-marked Path NPs. The data of argument ellipsis also support the claim that *o*-marked NPs are in fact arguments.

First, I will look at a prototypical argument ellipsis data with regular *o*-marked Theme NPs. In the cases of theme NPs, an elided argument via argument ellipsis yields both an E-type reading and a quantification reading.

- (19) a. Haru-wa [_{DP} san-dai-no kuruma]-o arat-ta.
Haru-TOP three-CL-GEN car-ACC wash-PAST
'Taro washed three cars.'
b. Saku-mo [_{DP} _____] arat-ta.
Saku-also wash-PAST
'Saku also washed [_{DP} them]'

In (19), with (19a), an antecedent, the set of cars washed by Haru and the set of cars washed by Saku, can be either identical (E-type reading) or different (Quantificational reading). These E-type and quantificational readings are both available if the *o*-marked Path NP appeared is elided as in (20).

- (20) a. Saku-wa Jibun-no ruuto-o hashit-ta.
Saku-TOP self-GEN route-ACC run-PAST.
'Taro run his route.'
b. Haru-mo [_{DP} _____] hasit-ta
Haru-also run-PAST
Haru run {Saku's / Haru's } route.'

The argument ellipsis reveals the parallelism between *o*-marked theme NPs and *o*-marked Path NP.

3.5 *O*-marked Path NPs are arguments

Previous sections show parallelisms between *o*-marked Path NPs and *o*-marked theme NPs with Case Marker Dropping, Quantifier Floating, Double-*o* Constraint and Argument Ellipsis. All the grammatical operations support objecthood of *o*-marked Path NPs.

4 Puzzle

If Path NPs are in fact objects, then another problem arises. The Path-taking verbs, such as *aruk-* ‘walk’, *hasir-* ‘run’, *oyog-* ‘swim’ etc., are normally supposed to be intransitive, since they are motion verbs and are considered as unergative.

These verbs can take objects, as shown in (21), but the objects are not Path NPs but Theme NPs.

- (21) a. Mark walks in the park every day.
 b. Mark walks with his dog in the park every day.
 c. Mark walks his dog in the park every day.
 d. *Mark walks the park with his dog every day.

Contrary to English, Japanese does not have this option, as shown in (21c), which is the causative version of ‘walk’, as shown in (22).

- (22) a. Saku-wa arui-ta.
 Saku-TOP walk-PAST
 ‘Saku walked.’
 b. *Saku-wa inu-o arui-ta.
 Saku-TOP dog-ACC walk-PAST
 ‘Saku take his dog walk.’

Then, how the *o*-marked NPs are introduced as objects? Of course, English has an apparently similar construction ‘come the pub’ construction, which is pointed out by Myler (2013). Prototypical examples of the ‘come the pub’ construction illustrated in (23).

- (23) a. John came to the pub with me.
 b. John came the pub with me.

(Myler 2013)

According to Myler, the ‘come the pub’ construction has two characteristics. One is that this construction is a dialect dependent expression, observed in south-west Lancashire, Merseyside, and Greater Manchester in the UK. The other characteristic is that the accusative-marked Path NPs in the ‘come the pub’ construction can be replaced by the PPs, as in (23). However, it is not the case in Japanese *o*-marked NPs. They are not dialectal dependent expressions, and furthermore, the *o*-marked argument cannot be replaced by PPs, as in (24).

- (24) Saku-wa michi- $\{o/*ni/*e/*de\}$ arui-ta.
 Saku-TOP street-ACC/ ON/ TO/ AT walk-past
 ‘Saku walked on the street.’

5 Argument structure in anti-lexicalism

Shown in the previous sections, *o*-marked Path NPs are, in fact, arguments, then the next problem is what introduces the argument. As shown in the section 4, this does not seem to be a result of incorporation, since the *o*-marked NPs cannot be replaced by PPs, which supposedly possible in the cases of incorporation.

One possible solution is to adopt the Neo Davidsonian approach to Argument Structure (cf. Lohndal 2014). Under the Neo Davidsonian approach, the sentence in (25a) has its LF representation as shown in (25b), which roughly translated as ‘there is an event of buttering of which Jones is the agent and the toast is the object’.

- (25) a. Jones buttered the toast.
 b. $\exists e$ [buttering (e, Jones, the toast)]
 (Lohndal 2014)

In this mechanisms, the thematic arguments could be separated or severed from the verb. Moreover, Lohndal proposes that thematic relations are two-place predicates, where they are conjoined as in (26) to form a sentence.

- (26) $\exists e$ [buttering (e) & Agent (e, Jones) & Theme (e, the toast)]
 (Lohndal 2014)

The motivation of the separation of each argument goes back to Kratzer (1996). The next section will look at the Kratzer’s (1996) idea, in which she removes external argument from the VP.

5.1 Kratzer’s removal of external argument

Kratzer (1996) proposes that the external argument is, indeed, taken by the VP, but it is introduced by a Voice head, following Marantz (1984). Marantz provides the following examples and points out that the verb and its internal argument together yield the idiomatic interpretations, as in (27).

- (27) a. throw a baseball.
 b. throw support behind a candidate
 c. throw a boxing match (i.e., take a dive)
 d. throw a fit

(Kratzer 1996)

Contrary to the cases of internal argument in (27), external arguments do not draw the idiomatic interpretation as in (28).

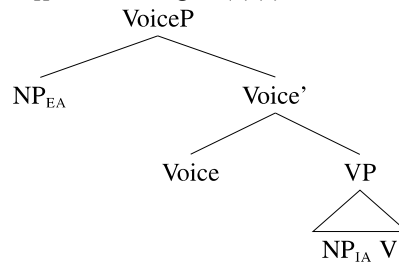
- (28) a. The policeman threw NP.
 b. The boxer threw NP.
 c. The social director threw NP.
 d. Throw NP!

Based on this asymmetric relation between external arguments and internal arguments, Kratzer proposes the following structure for Voice, where the external argument is introduced by separate projection from VP. The projection is called Voice in Kratzer's framework.

- (29) Voice, which introduces the external arguments of verb phrases (often agents)

a. $[[\text{Voice}]] = \lambda x. \lambda e. \text{Agent}(x)(e)$

b.



5.2 Removing internal argument

Similarly, the current novel data set that *o*-marked Path arguments can be optionally introduced to unergative VPs provides evidence that internal arguments need to be separated by VP. Presumably, arguments which NP is generated by VP complement position is based on the examples like (30), where the *o*-marked theme argument is obligatory.

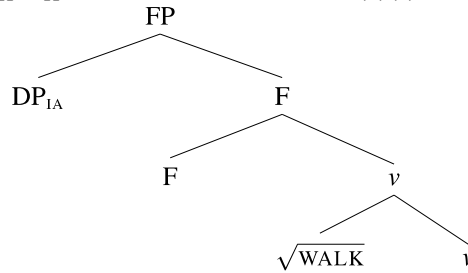
- (30) a. Saku-wa arui-ta.
 Saku-TOP walk-PAST
 'Saku walked'
 b. Saku-wa michi-o arui-ta.
 Saku-TOP street-ACC walk-PAST
 'Saku walked on the street.'

The LF representation of the sentence in (30b) can be written as (31) under the Neo-Davidsonian Argument Structure. Here, the last conjunct, namely Path, is optional. This means that the internal argument may be optional in certain circumstances, and moreover, unergative verb does not have an ability to take internal arguments. Therefore, it should be introduced by some other functional category, just like Voice projection for the external argument. Under the current approach, the syntactic structure which yields the LF interpretation for (31a) should be something like (31b). In such a structure, an internal argument is introduced by another functional head, which works as an internal argument introducer.

(31) $\exists e[\text{walk}(e) \ \& \ \text{Agent}(e, \text{Saku}) \ \& \ \text{Path}(e, \text{michi})]$

a. $[[\text{FP}]] = \lambda x. \lambda x. \text{Path/Goal/Theme.}(x)(e)$

b.



6 Conclusion

In this paper, I claim that, firstly, the internal arguments may be severed from VP just like the external arguments which is introduced by Voice head. Secondly, I claim that there must be a functional projection above VP, which introduces an internal argument, utilizing Neo Davidsonian approach toward the argument structure. The current proposal is evident by the fact that Japanese Path-taking unergative motion verbs, such as *aruk-* ‘walk’, *hasir-* ‘run’ and so on, optionally take an *o*-marked internal arguments.

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