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LF Intervention Effects and Nominative Objects in Japanese

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Abstract
This paper provides new data to tease apart existing analyses of the wide scope behavior of nominative objects in the Japanese potential construction. An object can get nominative or accusative Case in the Japanese potential construction (Kuno 1973). Significantly, only nominative objects can take scope over the potential suffix (Koizumi 1994, Nomura 2005, Sano 1983, Tada 1992, a.o.). There are at least three possible analyses to capture the wide scope behavior of nominative objects. First, nominative objects move to the Spec of TP, in which case nominative objects c-command the potential suffix (Case-movement analysis: Koizumi 1994, Nomura 2005, a.o. cf. Tada 1992). Second, nominative objects are base-generated in a position above the potential suffix (base-generation approach: Saito and Hoshi 1998, Takano 2003, a.o.). Third, the focus particle in nominative objects undergoes covert A’-movement (covert A’ movement approach: Bobaljik and Wurmbrand 2007, Takahashi 2010. cf. Sano 1985). There is one set of data concerning adjuncts, which favors the latter two approaches (Bobaljik and Wurmbrand 2007, Saito and Hoshi 1998, Takahashi 2010). We provide a new set of data to distinguish the two approaches. In particular, we show that the wide scope behavior of nominative objects is subject to LF intervention effects, which have been observed for Wh-constructions (Hoji 1985). As LF intervention effects are often analyzed in terms of covert movement of Wh-phrases (Beck 1997, Hoji 1985, Tanaka 1997), we conclude that movement is implicated in the wide scope behavior of nominative objects. As the base-generation approach involves no movement, we are lead to choose the covert A’-movement hypothesis over the base-generation approach.
LF Intervention Effects and Nominative Objects in Japanese

Kenshi Funakoshi and Masahiko Takahashi*

1 Introduction

This paper aims to provide a new set of data to tease apart existing approaches to the scope properties of nominative objects in Japanese and consider its implications. In Japanese, an object of a transitive sentence can get nominative Case when a verb is accompanied by the potential suffix -(rar)e (Kuno 1973):

(1) a. Taro-ga migime-o/*-ga tumu-ru.
   Taro-NOM right.eye-ACC/NOM close-PRS
   ‘Taro closes his right eye.’
   b. Taro-ga migime-o/ga tumur-e-ru.
   Taro-NOM right.eye-ACC/NOM close-can-PRS
   ‘Taro can close his right eye.

(1a) is a transitive sentence, where the object migime ‘right eye’ must get accusative Case from tumu ‘close’. On the other hand, (1b) shows that the object can get nominative Case as well as accusative Case when the verb is accompanied by the potential suffix -(rar)e. Interestingly, the nominative and accusative objects behave differently with respect to scope, which is shown by the following examples (see Sano 1985, Tada 1992):

(2) a. Taro-ga migime-dake-o tumu-e-ru.
   Taro-NOM right.eye-only-ACC close-can-PRS
   ‘Taro can close his right eye.’
   ‘Taro can wink his right eye.’
   ‘?*It is only his right eye that Taro can close.’
   (can > only) (only > can)
   Taro-NOM right.eye-only-NOM close-can-PRS
   ‘Taro can wink his right eye.’
   ‘?It is only his right eye that Taro can close.’
   (((*can > only)) (only > can)

While the accusative object in (2a) must take scope under the potential suffix, the nominative object in (2b) takes scope over the potential suffix. Since Sano’s (1985) seminal work, this wide scope behavior of nominative objects has been discussed extensively in the literature (see the next section for an overview of the literature). We provide evidence that the wide scope behavior of nominative objects involves covert A’-movement of dake ‘only’ (Bobaljik and Wurmbrand 2007, Takahashi 2010, 2011. cf. Sano 1985 Saito 2010). In particular, we show that the wide scope behavior is subject to LF intervention effects, which have been observed for Wh-constructions (Hoji 1985). As LF intervention effects are often analyzed in terms of covert A’ movement of Wh-phrases (Beck 1997, Hoji 1985, Tanaka 1997), we conclude that covert A’-movement is implicated in the wide scope behavior of nominative objects as well.

This paper is organized as follows. In Section 2 we provide an overview of existing approaches to the wide scope behavior of nominative objects. In Section 3 we briefly discuss LF intervention effects observed in the literature. In Section 4 we point out that the wide scope behavior of the nominative object is subject to LF intervention effects. Section 5 is the conclusion.

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Nomura (2003, 2005) observes that the nominative object can take scope under the potential morpheme in an appropriate context. We will not discuss the narrow scope interpretation of nominative objects in this paper. See Koizumi (2008) and Nomura (2003, 2005) for discussion.
2 Existing Approaches to the Wide Scope Behavior of Nominative Objects

In this section we provide a summary of existing approaches to the wide scope behavior of nominative objects in Japanese. We here introduce three approaches (i) Case-movement approach, (ii) base-generation approach, and (iii) covert A’-movement approach. It is also pointed out that data concerning adjuncts favor the latter two approaches.

Under the Case-movement approach, the wide scope behavior of nominative objects is attributed to Case-driven movement. Koizumi (1994, 1995, 1998) and Nomura (2003, 2005) propose that nominative objects move to the inner Spec of TP:

(3)

Koizumi (1994, 1995, 1998), in particular, proposes that the nominative object moves to the inner Spec of TP for Case-licensing. As the object asymmetrically c-commands the potential suffix, the former takes scope over the latter.

Under the base-generation approach advocated by Saito and Hoshi (1998), the nominative object is base-generated above the potential suffix. The nominative object thus (obligatorily) takes scope over the potential suffix (see also Saito 2012, Sugioka 1984, and Takano 2003). The analysis below is based on Saito and Hoshi (1998):

(4)

The nominative object is base-generated above the complex head consisting of the verb tumur ‘close’ and the potential suffix. As the nominative object asymmetrically c-commands the potential suffix, the former takes scope over the latter.

Under the covert A’-movement approach, the focus particle dake ‘only’ moves to a position that is higher than the potential suffix (Bobaljik and Wurmbrand 2007, Takahashi 2010, 2011. cf.

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4 Saito and Hoshi (1998) assume (i) that the lower segment of \([V_1, V_1]\) determines the scope of \([V_1, V_1]\) and (ii) that \([V_1, V_1]\) dominates the lower segment of \([V_1, V_1]\). The nominative object hence asymmetrically c-commands the lower segment of \([V_1, V_1]\).
Here the focus particle *dake* 'only', but not the entire object, moves to a position that asymmetrically c-commands the potential suffix. Note that the movement in question is not Case-driven (see Takahashi 2010, 2011 for an account of the lack of the wide scope interpretation of the accusative object).

One set of data that favors the base-generation approach and the covert A’-movement approach concerns adjuncts. It has been reported in the literature that the scope of the focus particle *dake* 'only' contained in an adjunct is also affected by Case of the object (see Bobaljik and Wurmband 2007, Saito and Hoshi 1998, and Takahashi 2010, 2011. See also Takano 2003).

\[(6)\]
\[
\begin{align*}
\text{a. Taro-ga} & \text{ sakana-o } \text{ kosyoo-dake-de} & \text{ tabe-rare-ru.} \\
\text{Taro-NOM} & \text{ fish-ACC} & \text{ pepper-only-with} & \text{ eat-can-PRS.} \\
\text{‘Taro can eat fish with only pepper.’} & \text{ (*only > can)}
\end{align*}
\]

\[
\begin{align*}
\text{b. Taro-ga} & \text{ sakana-ga} & \text{ kosyoo-dake-de} & \text{ tabe-rare-ru.} \\
\text{Taro-NOM} & \text{ fish-NOM} & \text{ pepper-only-with} & \text{ eat-can-PRS.} \\
\text{‘Taro can eat fish with only pepper.’} & \text{ (only > can)}
\end{align*}
\]

Takahashi (2010: 328)

\(\text{*dake* ‘only’ is contained in the adjunct, which does not undergo Case-movement. Interestingly, *dake* ‘only’ takes scope under the potential suffix when the object gets accusative Case while *dake* ‘only’ takes scope over the potential suffix when the object gets nominative Case. The contrast between (6a) and (6b) is hard to account for under the Case-movement approach. In particular, the wide scope behavior of *dake* ‘only’, which is contained in the adjunct in (6b), cannot be attributed to Case-movement. (6b) is easily accounted for under the base-generation approach advocated by Saito and Hoshi (1998):}

\[(7)\]

Both the adjunct and the nominative object are base-generated above the complex head when the

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5 The presence or absence of vP/PRO is not crucial here. See Bobaljik and Wurmband (2007) and Takahashi (2010, 2011) for discussion.
object gets nominative Case. Dake ‘only’ hence takes scope over the potential suffix. (3b) is also accounted for under the covert A’-movement approach:

\[(8)\]

Dake ‘only’ contained in the PP takes scope over the potential suffix by covert A’-movement. The movement in question is not driven by Case.

To summarize, we have reviewed three approaches to the wide scope interpretation of nominative objects: (i) Case-movement approach, (ii) base-generation approach, and (iii) covert A’-movement approach. We have also seen that the data concerning adjuncts favor the base-generation approach and the covert A’-movement approach. In the following sections we provide examples that can tease apart the base-generation approach and the covert A’-movement approach.

3 LF Intervention Effects

There are expressions that are prohibited from c-commanding Wh-phrases at S-structure (or before Spell-Out), such as negative polarity items (NPIs), quantificational QPs, and disjunctive NPs, as shown in (9):

\[(9)\]

a. **Daremo** nani-o kaw-ana-katta-no? (NPI)
   ‘What didn’t anyone buy?’

b. **John-sika** nani-o kaw-ana-katta-no? (NPI)
   ‘What did only John buy?’

c. **Daremo-ga** nani-o kat-ta-no? (Universal QP)
   ‘What did everyone buy?’

d. **Dareka-ga** nani-o kat-ta-no? (Existential QP)
   ‘What did someone buy?’

e. **[John ka Bill]-ga** nani-o kat-ta-no? (Disjunctive NP)
   ‘What did John or Bill buy?’

This is called the LF intervention effect, which is sensitive only to covert movement. This effect is circumvented by overtly moving Wh-phrases over intervening expressions (see Beck 1996, 2006, Beck and Kim 1997, Endo 2007, Hagstrom 1998, Hoji 1985, Pesetsky 2000, Takahashi 1990, Tanaka 1997, and Tomioka 2007). This is illustrated in (10), where the Wh-phrases undergo

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6 The object is moved above the adjunct to derive the word order in (6). This does not affect the discussion in the text.
scrambling, moving to the sentence-initial positions.

(10) a. Nani-o daremo ti kaw-ana-katta-no?
   what-ACC anyone ti buy-NEG-PST-Q
   (Lit.) ‘What, anyone didn’t buy?’

b. Nani-o John-sika ti kaw-ana-katta-no?
   what-ACC John-SIKA ti buy-NEG-PST-Q
   (Lit.) ‘What, only John bought?’

c. Nani-o daremo-ga ti kat-ta-no?
   what-ACC everyone-NOM ti buy-PST-Q
   (Lit.) ‘What, everyone bought?’

d. Nani-o dareka-ga ti kat-ta-no?
   what-ACC someone-NOM ti buy-PST-Q
   (Lit.) ‘What, someone bought?’

e. Nani-o [John ka Bill]-ga ti kat-ta-no?
   what-ACC John or Bill-NOM ti buy-PST-Q
   (Lit.) ‘What, John or Bill bought?’

Given that an in-situ Wh-phrase undergoes covert movement (Huang 1982), many analyses of LF intervention effects interpret these data as indicating that the intervening elements somehow block covert movement but not overt movement (Beck 1996, Beck and Kim 1997, Hoji 1985, and Tanaka 1997). Sentences like (9) are unacceptable because Wh-phrases move across the intervening elements at LF. Thus, if we adopt a syntactic analysis like this, LF intervention effects can be utilized as a tool to diagnose (covert) movement. In the next section, using the LF intervention effect as a diagnostic tool, we will make an argument for the movement approaches to the wide scope behavior of nominative objects in Japanese.

4 Nominative Objects and LF Intervention Effects

In this section, we will show that the wide scope behavior of nominative objects in Japanese is subject to the LF intervention effect. Given the syntactic analysis of the LF intervention effect, we conclude that (covert) movement is implicated in the scope puzzle, favoring the movement approaches to nominative objects in Japanese.

4.1 NPI Subjects as Interveners

As we saw in Section 2, nominative objects, unlike accusative objects, can take scope over potential suffixes. However, they cannot scope over potential suffixes when NPIs like daremo ‘anyone’ and NP-sika ‘only NP’ e-command them, as (11) and (12) show.

   anyone right.eye-only-NOM close-can-NEG-PRS
   ‘No one can close only his right eye.’

   John-SIKA right.eye-only-NOM close-can-NEG-PRS
   ‘Only John can close only his right eye.’

   anyone vodka-only-NOM drink-can-NEG-PRS
   ‘No one can drink only vodka.’

   John-SIKA vodka-only-NOM drink-can-NEG-PRS
   ‘Only John can drink only vodka.’

In (11) and (12), the NPIs (daremo ‘anyone’ in the a-examples and John-sika ‘John-SIKA’ in the
b-examples) c-command the nominative objects and the wide scope reading of the nominative objects is unavailable.\footnote{The narrow scope reading of the nominative objects is available in (11) and (12) for speakers who accept the narrow scope reading in non-NPI contexts.} We argue that this is an instance of LF intervention effects since the wide scope reading becomes available once the nominative objects overtly move over the NPIs, as (13) and (14) show.\footnote{Nomura (2005) also observes that wide scope-taking nominative objects exhibit an intervention effect, as shown in (i).}

\begin{itemize}
  \item (13) a. Migime-dake,-\text{ga} \textbf{daremo} t_i \tmur-e-na-i.
    \text{right.eye-only-NOM} \text{anyone} \tmur-e-na-i.
    \text{close-can-NEG-PRS}
    \quad \text{‘No one can close only his right eye.’ (only > can)}
  
  b. Migime-dake,-\text{ga} \textbf{John-sika} t_i \tmur-e-na-i.
    \text{right.eye-only-NOM} \text{John-SIKA} \tmur-e-na-i.
    \text{close-can-NEG-PRS}
    \quad \text{‘Only John can close only his right eye.’ (only > can)}

  \item (14) a. Wokka-dake,-\text{ga} \textbf{daremo} t_i \nom-e-na-i.
    \text{vodka-only-NOM} \text{anyone} \nom-e-na-i.
    \text{drink-can-NEG-PRS}
    \quad \text{‘No one can drink only vodka.’ (only > can)}
  
  b. Wokka-dake,-\text{ga} \textbf{John-sika} t_i \nom-e-na-i.
    \text{vodka-only-NOM} \text{John-SIKA} \nom-e-na-i.
    \text{drink-can-NEG-PRS}
    \quad \text{‘Only John can drink only vodka.’ (only > can)}
\end{itemize}

In (13) and (14), the nominative objects undergo scrambling, moving across the intervening NPIs and the wide scope reading of the nominative objects are available.\footnote{In (i), a focus particle \textit{sae} is attached to the potential suffix and the nominative object cannot take wide scope over the potential suffix. However, this effect is not the same as the LF intervention effects since overt movement of the nominative object does not circumvent the intervention effect, as illustrated in (ii).}

Given the syntactic analysis of LF intervention effects, these facts strongly suggest that nominative objects must undergo (covert) movement in order to take scope over the potential suffixes, favoring the movement analyses of the scope behavior of nominative objects (i.e. the Case-movement approach and the covert A’-movement approach) over the base-generation approach. Recall that the adjunct data in (6) favors the covert A’-movement approach (and the base-generation approach) over the Case-movement approach. This leads us to conclude that the covert A’-movement approach is the most empirically adequate analysis among the existing analyses of the scope behavior of nominative objects in Japanese.

\begin{itemize}
  \item (i) John-wa \text{migime-dake-ga} \tmur-e-sae \text{si-ta}.
    \text{right.eye-only-NOM} \text{close-can-even} \text{do-PST}
    \quad \text{‘John could even close only right eye.’ (Nomura 2005:189) (*only > can)}
    
  \item (ii) Migime-dake,-\text{ga} \text{John-wa} t_i \tmur-e-sae \text{si-ta}.
    \text{right.eye-only-NOM} \text{John-TOP} \text{close-can-even} \text{do-PST}
    \quad \text{Lit. ‘Only his right eye, John could even close.’ (*only > can)}
    
  \item (iii) John-wa \text{migime-dake-ga} \tmur-e-sae \text{si-nak-atta}.
    \text{right.eye-only-NOM} \text{close-can-even} \text{do-NEG-PST}
    \quad \text{‘John couldn’t even close his right eye.’ (only > can)}
\end{itemize}

Furthermore, the wide scope reading becomes available once the sentence is negated, as shown in (iii).

This fact also suggests that the intervention effect that Nomura observes is different from the LF intervention effect.\footnote{The scrambled nominative objects take scope over negation as well as the potential suffixes. As we will see in Section 4.2, nominative objects in general must take scope over clause-mate negation when they scope over potential suffixes (see (18)).}
4.2 Non-NPI Subjects as Interveners

We saw that NPI subjects induce LF intervention effects in the potential construction. Recall, however, that universal QPs, existential QPs, and disjunctive NPs (henceforth non-NPI interveners) also induce LF intervention effects in the Wh-construction (see (9)). In contrast with the Wh-construction, in the potential construction, non-NPI interveners do not trigger LF intervention effects, as (15)-(17) show.

(15) a. Daremo-ga 
   everyone-NOM  
   migime-dake-ga right.eye-only-NOM  
   tumur-e-ru. close-canPRS  
   ‘Everyone can close only his right eye.’  
   (only > can)

   b. Daremo-ga 
      everyone-NOM  
      wokka-dake-ga vodka-only-NOM  
      nom-e-ru. drink-canPRS  
      ‘Everyone can drink only vodka.’  
      (only > can)

(16) a. Dareka-ga 
      someone-NOM  
      migime-dake-ga right.eye-only-NOM  
      tumur-e-ru. close-canPRS  
      ‘Someone can close only his right eye.’  
      (only > can)

   b. Dareka-ga 
      someone-NOM  
      wokka-dake-ga vodka-only-NOM  
      nom-e-ru. drink-canPRS  
      ‘Someone can drink only vodka.’  
      (only > can)

(17) a. [John ka Mary]-ga 
       John or Mary-NOM  
       migime-dake-ga right.eye-only-NOM  
       tumur-e-ru. close-canPRS  
       ‘John or Mary can close only his right eye.’  
       (only > can)

   b. [John ka Mary]-ga 
      John or Mary-NOM  
      wokka-dake-ga vodka-only-NOM  
      nom-e-ru. drink-canPRS  
      ‘John or Mary can drink only vodka.’  
      (only > can)

In (15)-(17), the wide scope reading of the nominative objects is available even though the non-NPI interveners c-command them.\(^{10}\)

This difference between the Wh-construction and the potential construction in terms of the LF intervention effect can be attributed to the difference between them in the positions where Wh-phrases and wide scope-taking nominative objects move. There is evidence that wide-scope-taking nominative objects must move at least above NegP. Consider sentences like (18), where the nominative object appears in a negative sentence.

(18) John-wa oyayubi-dake-ga mage-rare-na-i.  
    John-TOP thumb-only-NOM  
    crook-canNEGPRS  
    ‘John cannot crook only his thumb.’  
    (Nomura 2005:185)

   (i) only > Neg > can ‘It is only his thumb that John cannot crook.’

   (ii)*Neg > only > can ‘It is not the case that it is only his thumb that John can crook.’

(18) has the reading in which the nominative object scopes over both negation and the potential suffix (the reading (i)). On the other hand, (18) does not have the reading in which the nominative object takes scope between negation and the potential suffix (the reading (ii)). This suggests that nominative objects must move at least above NegP when they take scope over the potential suffixes. Given this, we minimally assume that wide scope-taking nominative objects move somewhere between NegP and TP at LF (i.e. the NegP-adjoined position, the inner Spec of TP, or the Spec of some other functional projection between TP and vP).

Kato (1985, 1994) argues that sika-NPIs and Wh-mo-NPIs must be c-commanded by negation at LF to be licensed (see also Kato 2000, 2002). Given this licensing condition on NPIs, we assume that NPI subjects must be reconstructed into their original position at LF in order to be c-commanded by negation. Then, we can account for the difference between NPI interveners and non-NPI interveners in terms of LF intervention effects in the potential construction. (19) is the

schematic LF representation for sentences like (11) and (12). The NPI subject is reconstructed into the Spec of canP in order to be within the scope of negation. The nominative object must move somewhere between TP and NegP in order to take scope over the potential suffix. Therefore, the wide scope-taking nominative object necessarily crosses the NPI subject, inducing the LF intervention effect.

(19)

On the other hand, the schematic LF representation for sentences like (15)-(17) looks like the following:

(20)

In (20), the subject can stay at the Spec of TP since it is not an NPI. The nominative object moves somewhere between TP and NegP when it takes scope over the potential suffix. Therefore, LF movement of the wide scope-taking nominative object does not cross the intervening subject. This is why a nominative object can take scope over the potential suffix without inducing the LF intervention effect when the intervening element is a non-NPI subject.

In contrast with wide scope-taking nominative objects, Wh-phrases induce the LF intervention effect whether the intervening subject is an NPI or a non-NPI. This is so because Wh-phrases move to the Spec of CP at LF: the Wh-object necessarily crosses the Spec of TP and the Spec of vP at LF, as illustrated in (21).

(21)
In this way, the difference between the Wh-construction and the potential construction in terms of the LF intervention effect can be attributed to the difference between them in terms of the designated positions where Wh-phrases and wide scope-taking nominative objects move at LF.

5 Conclusion

To sum up, we showed that wide scope-taking nominative objects in Japanese are subject to LF intervention effects when the intervening element is an NPI. This strongly suggests that (covert) movement is implicated in the scope puzzle, favoring the movement analyses of the scope behavior of nominative objects (i.e. the Case-movement approach and the covert A’-movement approach) over the base-generation approach. Given that the adjunct data in (6) favors the covert A’-movement approach (and the base-generation approach) over the Case-movement approach, this leads us to conclude that the covert A’-movement approach is the most empirically adequate analysis among the existing analyses of the scope behavior of nominative objects in Japanese.

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