Argument Doubling and the Double-*o* Constraint

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1.   Introduction

The fact that Japanese does not allow the double occurrence of accusative Case-maker in a particular domain has been extensively discussed by a number of linguists since Harada (1973, 1975). In this language, accusative Case-marker is realized as *o*, and the phenomenon is known as the "Double-*o* Constraint," hereafter, D*o*C. Let us consider the following examples.

(1)   ?? Ken-ga   Naomi-o$_i$ *e*$_i$ atama-o   tatai-ta.
          Ken-NOM Naomi-ACC   head-ACC hit-PAST

        'Ken hit Naomi on the head.'

                                                                                    (Hiraiwa 2010:730)

(2)   a. ??/ok Ken-ga   Naomi-o   ∅ atama-o   tatai-ta.
                  Ken-NOM Naomi-ACC   head-ACC hit-PAST

           'Ken hit Naomi on the head.'   (Hiraiwa 2010:761)

       b. ?/ok Ken-ga   Naomi-*dake*-o   atama-o   tatai-ta.
                  Ken-NOM Naomi-only-ACC head-ACC hit-PAST

           'Ken only hit Naomi hard on the head.'   (Hiraiwa 2010:761 fn.4)

In recent studies, Hiraiwa (2010) claims that the grammatical contrast between (1) and (2) should be explained in a phase-based manner. According to his analysis, (1) is ruled out because the two accusative DPs *Naomi-o* 'Naomi-ACC' and *atama-o* 'her head-ACC' are spelled-out in the same phase-domain. (2), on the other hand, is allowed since *Naomi-o* with a phonetic gap, denoted '∅' in (2a), and *Naomi-dake-o* 'only Naomi' are actually moved from the VP-domain, in which *atama-o* is spelled-out. In other words, *Naomi-o* is not spelled-out with *atama-o*.

While Hiraiwa extensively discusses the distribution of double-accusative sentences, Saito (2017) discusses how the D*o*C effect can be salvaged:

(3)   a. * Hanako-ga   Taroo-o   gakusei-o   san-nin sikat-ta.
             Hanako-NOM Taroo-ACC student-ACC three-CL scold-PAST

          'Intended. Hanako scolded Taroo and three students.'

       b. * Hanako-ga   Taroo-o   sikat-ta   no]-wa   gakusei-o   san-nin da
             Hanako-NOM Taroo-ACC scold-PAST COMP-TOP student-ACC three-CL is

          '(Lit.)It is three students that Hanako scolded Taroo'

                                                                                    (Saito 2017:397)

(4)   a. ? Hanako-ga   kudamono-o ringo-o   hitotu-dake   tabe-ta.
              Hanako-NOM fruit-ACC   apple-ACC one-CL-only eat-PAST

             'Hanako ate an apple, and it was an apple.'

      b.   Hanako-ga   kudamono-o tabe-ta   no-wa   ringo-o   hito-tu-(-dake) da
              Hanako-NOM fruit-ACC   eat-PAST COMP-TOP apple-ACC

             'Hanako ate fruits, and what she ate was only one apple.'

                                              (Saito 2017:398-399)

To account for the contrast in (3) and (4), Saito presents two proposals: (i) That the first argument in argument doubling must serve as a specifier of the set of alternatives for the second argument, and (ii) that the second argument must be a focus. (4) is legitimate because the first accusative argument serves to specify the set of alternatives and *dake* focalizes the second accusative argument. (3) is ungrammatical because the first argument fails to specify the set of alternatives.

The purpose of this short paper is to present a slight modification of Saito's (2017) analysis that in argument doubling, the second thematic argument must be a focus. In light of Saito (2017), I will argue that grammatical double-accusative sentences should be regarded as an instance of argument doubling.

The argument of this paper proceeds as follows. In Section 2, I provide a review of previous research on double-accusative phenomena in Japanese. In Section 3, I present an empirical problem of previous research concerning the relevant phenomena and argue that some of Hiraiwa's data do not support his analysis. In order to solve these problems in Section 3, in Section 4 I present a slight modification of the analysis of Japanese argument doubling and argue that either of the two accusative DPs must be focalized. Section 5 concludes this paper.

2.   A Phase-based Approach: Hiraiwa (2010)

In this section, we will explore Hiraiwa's analysis of double-accusative phenomena. Hiraiwa proposes that a double occurrence of accusative-DPs must not be realized in the same spell-out domain and concludes that the Double-*o* Constraint can be reduced to the theory of phase.

Hiraiwa proposes the following condition and concludes that the Double-*o* Constraint follows from the theory of phase:

(5)   A Phase Theory of the Double-accusative Constraint
       Multiple identical occurrences of the structural accusative Case value cannot be morphophonologically realized within a single Spell-Out domain at Transfer.

                                     (Hiraiwa 2010:753)

This condition prohibits more than one accusative DPs from being realized at each Spell-Out domain, i.e., the number of accusative DPs that can be realized at each Spell-Out domain is only one.

Under the condition above, double-accusative phenomena are accounted for in a phase-based manner. Let us consider the following contrast:

(6)   a. ?? Ken-ga   omoikkiri Naomi-o   atama-o   tatai-ta.
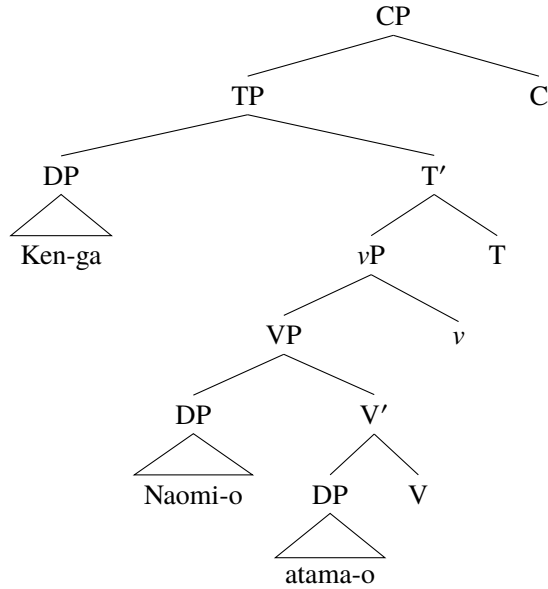   Ken-Nom hard   Naomi-Acc head-ACC hit-PAST

'Ken hit Naomi hard on the head.'

b.   Naomi-o$_i$ Ken-ga   omoikkiri t_i atama-o   tatai-ta.
            Naomi-ACC Ken-Nom hard   head-ACC hit-PAST

         'Ken hit Naomi hard on the head.'   (Hiraiwa 2010:735)
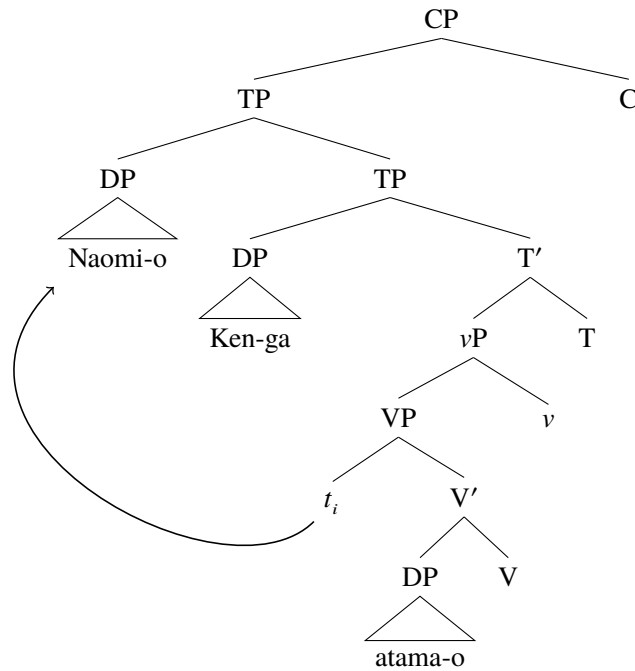
(7)   a.   (Hiraiwa 2010:754)

b.   (Hiraiwa 2010:757)

(6a) is unacceptable because two accusative-marked DPs in (7a) are located within the VP, which is the complement domain of phase head *v*, and the sentence is consequently ruled out by (5). (6b), on the other hand, is allowed since *Naoi-o* in (7b) is raised to TP-edge by scrambling and escapes the spell-out of the VP.

Hiraiwa also claims that the phonetic gap between the first accusative DP and the second accusative DP suggests that the first one is actually moved to edge-*v*P.

(8) a. Ken-ga Naomi-o ∅ atama-o tatai-ta.

   b. ?/ok Ken-ga Naomi-*dake*-o atama-o tatai-ta.

The D*o*C effect is suppressed by placing a phonetic pause after the accusative possessor or by adding *dake* to the possessor. Hiraiwa argues that the possessor followed by a pause or *dake* is actually moved out of the VP-domain and hence escapes the Spell-Out of VP.

To summarize this section, we have mainly seen that only one accusative DP is allowed to be realized at each Spell-Out. By assuming that the D*o*C applies at the time of Spell-Out, Hiraiwa has provided a principled account of the mysterious fact that Japanese prohibits two accusative DPs from being realized in a particular syntactic domain.

3.   Double-accusative Sentences and a Focus-particle *-dake*

In this section, we will reconsider double-accusative sentences of Japanese under Hiraiwa's (2010) analysis and show that some of his data do not necessarily support his analysis. Recall Hiraiwa's claim that the first accusative-DP is actually moved to edge-*v*P when a strong pause or a focus particle is added to the possessor:

(9) a. Ken-ga Naomi-o ∅ atama-o tatai-ta.

   b. ?/ok Ken-ga Naomi-*dake*-o atama-o tatai-ta.

(10) a. ?? Ken-ga Naomi-o atama-o tatai-ta.

   b. ?/ok Ken-ga Naomi-*dake*-o atama-o tatai-ta.

The double-*o* constraint effect is amended either by putting a phonetic pause after the accusative possessor or by adding *dake* to the possessor. Hiraiwa argues that the possessor with a pause or *dake* is actually moved out of the VP-domain and hence escapes the Spell-Out of VP. However, I point out these data do not support his analysis.

As the following data show, the object with *dake* stays within VP when its scope is determined.

(11) a. Kiyomi-wa   migime-dake-o   tumur-e-ru
      Kiyomi-TOP right.eye-only-ACC close-can-PRES
      'Kiyomi can wink with her right eye.'   (can>only)

   b. Kiyomi-wa   migime-dake-ga   tumur-e-ru
      Kiyomi-TOP right.eye-only-NOM close-can-PRES
      'It is only her right eye that Kiyomi can close.'   (only>can)
                                                        (Saito 2012:111-112)

The nominative object *migime-dake-ga* 'only right eye' takes a wider scope than the auxiliary *e* 'can', while the accusative object *migime-dake-o* takes narrow scope. That this is the case is shown by the following facts:

(12) a. Naomi-ga   Ken-*dake*-ga   atama-o   tatak-e-ru.
      Naomi-NOM Ken-only-NOM head-ACC hit-can-PRES

   'It is only on Ken that Naomi can hit the head.'   (only>can)

   b. Naomi-ga   Ken-*dake*-o   atama-o   tatak-e-ru.
      Naomi-NOM Ken-only-ACC head-ACC hit-can-PRES

   'Naomi can hit the head only on Ken.'   (can>only)

The accusative DP in the second sentence takes a narrower scope than 'can' does. Given Saito's (2012) discussion, *Ken-dake* 'only Ken' stays in the VP-complement.

Here, it should be noted that *dake* can also be placed on the second accusative-DP:

(13) a. ?? Naomi-ga   Ken-o   atama-o   tatake-ru.
         Naomi-NOM Ken-ACC head-ACC hit-can-PRES

   'Naomi can hit the head on Ken.'

   b. Naomi-ga   Ken-o   atama-*dake*-o   tatake-ru.
      Naomi-NOM Ken-ACC head-only-ACC hit-can-PRES

   'Naomi can only hit the head on Ken.'   (can>only)

(14) Naomi-ga   Ken-o   atama-*dake*-o   tatai-ta.
     Naomi-NOM Ken-ACC head-only-ACC hit-PAST

   'Naomi only hit the head on Ken.'

Although Hiraiwa's analysis is quite intriguing and can accommodate multiple situations, the analysis predicts that the latter sentence is ruled out on par with the former, contrary to the facts. All of the three accusative DPs with *dake* in (12b), (13b) and (14) are spelled out within the same phase-domain. From the facts of scope phenomena, I will argue that these data do not guarantee that the accusative-marked possessor with *dake* is moved and escapes spell-out.

To summarize this section, I have argued that the conclusion of previous research is not correct by exploring the scope facts of double-accusative sentences. I have pointed out that the accusative argument with *dake* does not move at all. Although Hiraiwa's analysis provides a theoretical explanation of the D*o*C effects, this wrongly predicts that double-*o* sentences with focus particles cannot be obtained.

4. A Possible Direction

In this subsection, I will propose a slight modification of Saito's analysis. Departing from Saito (2017), I will argue that either of the arguments in argument doubling must be a focus, i.e., the first argument can be a focus in argument doubling.

4.1. Saito (2017)

Saito (2017) argues that the Japanese language allows doubling of thematic arguments. Let us consider the following examples:

(15) a. ?? Hanako-ga   Masao-ni   hoho-ni   kisu-si-ta.
         Hanako-NOM Masao-DAT cheek-DAT kiss-do-PAST

       'Hanako kissed Masao on the cheek.'

    b.   Hanako-ga   Masao-ni   kisu-si-ta-no-wa   hoho-ni   da.
          Hanako-NOM Masao-DAT kiss-do-PAST-that-TOP cheek-DAT is

       'It is on the cheek that Hanako kissed Masao.'

<div align="right">(Saito 2017:393)</div>

(15) suggests that both *Hanako* and *hoho* 'cheek' are realized as thematic arguments of *kisusi-ta* 'kissed'.

(16) a. ?* Hanako-ga   kudamono-o ringo-o   hitotu   tabe-ta.
          Hanako-NOM fruit-ACC   apple-ACC one-CL eat-PAST

       'Hanako ate an apple, and it was an apple.'

    b.   Hanako-ga   kudamono-o tabe-ta   no-wa   ringo-o   hito-tu-(-dake) da
          Hanako-NOM fruit-ACC   eat-PAST COMP-TOP apple-ACC

       '(Lit.) It is only one apple that Hanako ate fruits.'

<div align="right">(Saito 2017:398)</div>

On a par with (15), both *kudamono-o* 'fruit-ACC' and *ringo-o* 'apple-ACC' are thematic arguments of *tabe-ta* 'ate'.

   Furthermore, (16a) improves when a focus element *dake* is located on the second accusative DP.

(17)   Masao-ga   kudamono-o ringo-o   hitotu-dake tabe-ta.
        Masao-NOM fruit-ACC   apple-ACC one-CL-only eat-PAST

       'Masao ate fruits, and what he ate was only one apple.'

From this sentence, we see that the second argument must be a focus in argument doubling.

   Argument doubling, however, is not quite free, as shown by the following.

(18) a. * Hanako-ga   Taroo-o   gakusei-o   san-nin sikat-ta.
          Hanako-NOM Taroo-ACC student-ACC three-CL scold-PAST

       'Intended. Hanako scolded Taroo and three students.'

    b. * Hanako-ga   Taroo-o   sikat-ta   no]-wa   gakusei-o   san-nin da
          Hanako-NOM Taroo-ACC scold-PAST COMP-TOP student-ACC three-CL is

       '(Lit.)It is three students that Hanako scolded Taroo'

<div align="right">(Saito 2017:397)</div>

   Here, we have examined the facts of argument doubling and confirmed that the distribution is not free. One might wonder how argument doubling could be legitimate, and Saito provides an answer to this question. First, he assumes that Hanako's kissing Masao and her kissing his cheek are realized as the same event in (15), and that (19b) must hold for (19a) to be legitimate:

(19) a.   [$_{TP}$ ... DP-DAT/ACC$_1$ DP-DAT/ACC$_2$ ...]
    b.   [$_{TP}$ ... DP-DAT/ACC$_1$ ...] and [... DP-DAT/ACC$_2$ ...] depict the same event/state/.

<div align="right">(Saito 2017:398)</div>

(19) readily accounts for the contrast between the grammatical cases and (18). Under (19), Hanako's scolding of Taroo and her scolding of the three students cannot be regarded as the same event even if Taroo is one of the three students she scolded.

Based on Rooth (1992), he further proposes that the first argument must serve to specify the set of alternatives for focus based on the facts regarding (16b) and (17).

Let us see how the sentence in (16b), repeated as (20a), is analyzed under his proposal:

(20)　a.　　Hanako-ga kudamono-o tabe-ta no-wa ringo-o hito-tu-(-dake) da

　　　b.　? Hanako-ga tabe-ta no-wa ringo-o hito-tu-dake da.

(20) says that an apple is the only fruit that Hanako ate. However, it is not necessarily true that the apple is the only thing that Hanako ate. She could have eaten something else as well as an apple. In (20b), the interpretation of (20a) is absent because the first accusative DP *kudamono-o* 'fruit-ACC' is missing from the sentence. Under Saito's analysis, the grammaticality of (20a) is due to the fact that this accusative phrase in (20a) serves to restrict the set of alternatives to fruits, as in (21).

(21)　　　{one orange, two bananas, five peaches, one banana, one apple, ... }

Saito's analysis correctly predicts the ungrammaticality of (18b), repeated below as (22).

(22)　　* Hanako-ga Taroo-o sikat-ta no-wa gakusei-o san-nin da.

In this sentence, *Taroo-o* 'Taroo-ACC' simply cannot specify the set of alternatives for *gakusei-o san-nin* 'three students'.

To summarize Saito's (2017) research, any thematic argument can be doubled in Japanese. The second argument must be a focus and the first must serve to specify its set of alternatives in argument doubling.

4.2.　A Slight Modification to Saito (2017)

As mentioned in the previous section, the focus particle *dake* 'only' ameliorates the double accusative effect:

(23)　a.　?* Hanako-ga kudamono-o ringo-o hitotu tabe-ta.

　　　b.　　? Hanako-ga kudamono-o ringo-o hitotu-*dake* tabe-ta.

While Saito argues that the second argument in (23b) must be a focus, Hiraiwa reports that the first argument can be a focus instead.

(24)　a.　?? Ken-ga Naomi-o atama-o tatai-ta.

　　　b.　　? Ken-ga Naomi-*dake*-o atama-o tatai-ta.

As noted in Section 3, the second accusative DP in a double-accusative sentence can be a focus, as in (25) and (26).

(25)　a.　?? Ken-ga Naomi-o atama-o tatai-ta.

      b.   ? Ken-ga Naomi-o atama-*dake*-o tatai-ta.

(26)   a. ?? Ken-ga Naomi-o atama-o tatake-ru.

      b.   Ken-ga Naomi-o atama-*dake*-o tatake-ru.

The focalization, however, is not free, as shown in (27):

(27)   a. * Ken-ga   Naomi-*dake-o*   atama-*dake*-o tatai-ta.
               Ken-NOM Naomi-only-ACC head-only-ACC hit-PAST

               'Ken only hit the head only on Naomi.'

      b. * Ken-ga   Naomi-*dake*-o   atama-*dake*-o tatake-ru.
               Ken-NOM Naomi-only-ACC head-only-ACC hit-can-PRES

               'Ken can only hit the head only on Naomi.'

(27) implies that the number of the accusative arguments that can be focalized is restricted to only one in argument doubling.

Based on the facts we have explored, I propose a modification of Saito's analysis:

(28)   An argument-doubling sentence is salvaged when the following conditions are met.

      a.   Both of the two arguments within the VP-complement are thematic arguments of the same verb.

      b.   Only one of the two arguments is focalized.

(28b) requires only one argument to be a focus in an argument-doubling structure, and does not specify which of the two arguments must be a focus.

Given this modified proposal, (24a) is deviant because neither of the two accusative DPs is a focus. (25b) and (26b) are allowed, satisfying (28b). In (27), both of the two accusative DPs are focalized, resulting in ungrammaticality. These sentences are ruled out due to a violation of (28b). This proposal also accommodates the following contrast:

(29)   a. * Hanako-ga   Masao-*dake*-ni hoho-*dake*-ni   kisu-si-ta.
               Hanako-NOM Masao-only-DAT cheek-only-DAT kiss-do-PAST

               'Hanako only kissed Masao only on the cheek.'

      b.   Hanako-ga   Masao-*dake*-ni hoho-ni   kisu-si-ta.
               Hanako-NOM Masao-only-DAT cheek-DAT kiss-do-PAST

               'Hanako only kissed Masao on the cheek.'

      c.   Hanako-ga   Masao-ni   hoho*dake*-ni   kisu-si-ta.
               Hanako-NOM Masao-only-DAT cheek-only-DAT kiss-do-PAST

               'Hanako kissed Masao only on the cheek.'

Argument doubling of dative-marked object DPs is not an exception. The difference between (29a) and (29b-29c) is the number of focalized dative-arguments. This contrast suggests that only one of the two arguments in argument doubling can be focalized, and that this is applicable to the first argument in the relevant structure.

In this section, I have presented a slight modification of Saito's (2017) analysis of Japanese argument doubling. Departing from Saito (2017), I have argued that the first argument can be a focus, and further that only one of the two arguments can be so. We have finally seen that this proposal accommodates the problem discussed in the previous section.

5.   Conclusion

In this paper, I have presented a slight modification of Saito's (2017) analysis of argument doubling in Japanese. To build up my argument, I have explored scope facts of the Japanese focus particle *dake* and double-accusative sentences. I have also shown that the analysis proposed in this paper straightforwardly accounts for the distribution of double-accusative sentences.

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