Title	A derivational approach to dake : a preliminary sketch of association with focus
Sub Title	「だけ」に対する派生的アプローチ：焦点連結現象の予備的素描
Author	星, 浩司(Hoshi, Koji) 三好, 暢博(Miyoshi, Nobuhiro)
Publisher	慶應義塾大学日吉紀要刊行委員会
Publication year	2007
Jtitle	慶應義塾大学日吉紀要. 言語・文化・コミュニケーション (Language, culture and communication). No.39 (2007.) ,p.25- 48
JaLC DOI	
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Notes	
Genre	Departmental Bulletin Paper
URL	https://koara.lib.keio.ac.jp/xoonips/modules/xoonips/detail.php?koara_id=AN10032394-20071220-0025

A Derivational Approach to *Dake*:
A Preliminary Sketch of Association with Focus

Koji Hoshii* and Nobuhiro Miyoshi**

Abstract

The single cycle model set forth in the recent minimalist program implies elimination of the LF cycle, thus phenomena originally handled within the LF component have now become a "touchstone" for evaluating the model. This paper claims that association with focus involving the focus particle *dake* 'only' in Japanese, which has been assumed to involve LF-movement, can be best captured solely within the overt component. More specifically, it proposes that the sentence with *dake* involves the following two overt derivational stages: (i) the stage where *Merge* establishes association between *dake* 'only' and its focus associate; (ii) the stage at which the scope of the constituent created by Merge in (i) is determined by overt movement. It further demonstrates not only that the proposed analysis provides a natural account for relevant syntactic properties of the phenomenon at hand, but also that in light of novel facts concerning idiom interpretations, LF-movement operations assumed in previous studies do not in fact exist. To the extent that the present analysis is on the right track, it will provide further support for the basic tenet of the minimalist program that the computational system C_{HL} is designed to carry out efficient computation in narrow syntax.

Keywords: a derivational approach, association with focus, *dake* 'only', the single
        cycle model

1. Introduction

The recent version of minimalist program has raised a number of issues concerning the nature of language faculty, by asking how well the computational system C_{HL} is designed. Suppose that one of the plausible conjectures is that the

computational system C_{HL} is well-designed in terms of computational efficiency. A natural hypothesis should be that the nature of C_{HL} is strictly local and derivational. If this reasoning is on the right track, the single cycle model put forth by Chomsky (2004) is a good hypothesis to test, since this single cycle model entails the elimination of the covert cycle. Given the hypothesis at hand, one of the most important syntactic issues would be whether configurations relevant for a particular interpretation can be established in overt syntax, without recourse to any covert operations in covert syntax.

In this respect, the phenomenon of so-called "association with focus" (Fisher 1968, Jackendoff 1972) in Japanese involving the "fuku-joshi, or adverbial particle" *dake* 'only' (henceforth, F-particle) is interesting to investigate, considering that Aoyagi (1998, 1999, 2006) and Sano (2001) have claimed that the phenomenon in question involves covert movement of the particle *dake*. Setting technical details aside, the F-particle *dake* can be treated as a focus-sensitive particle analogous to *only* in English.[1] Observe the following paradigm in (1) (In what follows, the focus associate is capitalized just for expository purposes):

(1)   a. **JOHN**-*dake*-(ga) hon-o yonda.
            John-only-(NOM) book-ACC read-PAST
            "Nobody other than John read a book."
        b. John-ga **HON**-*dake*-(o) yonda.
            John-NOM book-only-(ACC) read-PAST
            "John read nothing other than a book."

As shown in (1), *dake* enters into a particular semantic relation of association with focus with an element that it attaches to, in the sense of Fisher (1968) and Jackendoff (1972).

The aim of this paper is to provide empirical support for the single cycle model, by demonstrating that structural properties prerequisite for association with focus are determined in overt syntax.

The paper is organized as follows. In section 2, we discuss three core properties of *dake*, which any syntactic theory has to capture: very local association, particle-ordering, and facts concerning scope reconstruction effects. In section 3, we propose a derivational analysis of association with focus in Japanese involving *dake*. In section 4, we show that the three core properties of *dake* in section 2 follow from our proposal in section 3. In section 5, we present novel data that cast a serious doubt on licensing association of focus in covert syntax. In section 6, we argue that

the empirical coverage of our proposal is not limited to Japanese, showing that it can be easily extended to Chinese as well. Section 7 concludes our paper.

2. Three Properties of *Dake*

In this section, we discuss three major properties of the F-particle *dake* 'only,' clarifying relevant syntactic issues in the single cycle model.

2.1. Very Local Association

A first property is concerning locality requirements. Association with focus involving *dake* is a very local phenomenon in the following two ways. First, as witnessed by the contrast between (2) (= (1)) and (3), *dake* can only be associated with a constituent that it attaches to:

(2)   a. **JOHN**-*dake*-(ga) hon-o yonda.
        John-only-(NOM) book-ACC read-PAST
        "Nobody other than John read a book."

        b. John-ga **HON**-*dake*-(o) yonda.
        John-NOM book-only-(ACC) read-PAST
        "John read nothing other than a book."

(3)   a. *John-*dake*-(ga) **HON**-o yonda.
        John-only-(NOM) book-ACC read-PAST
        "John read nothing other than a book."

        b. ***JOHN**-ga hon-*dake*-(o) yonda.
        John-NOM book-only-(ACC) read-PAST
        "Nobody other than John read a book."

Notice that, in contrast to (2) (= (1)), the examples in (3) are unacceptable under the intended interpretations in the glosses, since *dake* and its focus associate are not directly attached to each other.

Second, there is no upward domain-extension of *dake*. In other words, no "wide focus" interpretation in the sense of Kuroda (1965) and Aoyagi (1998, 1999, 2006) is available, as illustrated in (4):[2]

(4)   **JOHN**-*dake*-(ga) hon-o yonda.
    John-only-(NOM) book-ACC read-PAST
    "Nobody other than John read a book."

"*It only happened that John read a book (and nothing else happened)."

Note that (4) does not yield the interpretation that "it only happened that John read a book (and nothing else happened)," which would be obtained if *dake* were to take the whole proposition in (4) as its focus associate. Hence, the lack of such "wide focus" reading with respect to *dake* also suggests that the association has to be local in nature.

2.2. Ordering

A second property is somewhat morpho-syntactic in nature. There is a restriction on ordering among *dake* and other types of particles. Nominative and accusative case particles cannot precede *dake*, whereas either order is possible when it occurs with other particles, as illustrated in (5):

(5) a. **JOHN**-*dake*-**ga/*ga**-*dake*
        John-only-NOM/*NOM-only
        "Nobody other than John"
     b. **HON**-*dake*-**o/*o**-*dake*
        book-only-ACC/*ACC-only
        "Nothing other than a book"
     c. **JOHN**-*dake*-**ni/ni**-*dake*
        John-only-DAT/DAT-only
        "To nobody other than John"
     d. **MARY**-*dake*-**kara/kara**-*dake*
        Mary-only-from/from-only
        "From only Mary/only from Mary"
     e. **GAKKO**-*dake*-**de/ de**-*dake*
        school-only-at/at-only
        "At only the school/only at the school"

A generalization is that the case particles *ga* and *o*, which are generally assumed to be reflexes of licensing of structural Cases, must follow *dake* but this restriction is not imposed on other particles.

2.3. "Scope Reconstruction Effects" and Omission of Case Particles

The final property is that the F-particle *dake* is a quantificational element. In this subsection, we make a brief survey of two facts concerning this property.

First, the F-particle *dake* takes scope and interacts with other quantificational elements. Observe the example in (6), where the DP *hon-dake-o* can take scope over the negation and vice versa:

(6) John-ga **HON**-*dake*-**o** yoma-nakatta
     John-NOM book-only-ACC read-not-PAST
     "lit. John didn't read only books"
         only>not, not>only

Second, as Hoji (1985) originally pointed out, omission of case particles sometimes does affect scope possibility. As a matter of fact, the accusative case particle *o* is optional in (6). If it is omitted, the lower scope reading for *dake* (i.e. the **not>only** reading) becomes impossible, as exemplified in (7):

(7) John-ga **HON**-*dake* yoma-nakatta
     John-NOM book-only read-not-PAST
     "lit. John didn't read only books"
         only>not, *not>only

Essentially the same paradigm can be obtained in the case of long-distance "preposing" of a DP with *dake*. Consider the paradigm in (8):

(8) a. Hanako-ga [Taro-ga **SONO HON** –*dake*-(**o**) yonda to] itta.
        Hanako-NOM Taro-NOM that book-only-(ACC) read that say-PAST
        "Hanako said that Taro read only that book (i.e., there is nothing else he read)."
     b. **SONO HON**-*dake*-**o**$_i$ [Hanako-ga [Taro-ga t$_i$ yonda to] itta.
        that book-only-ACC Hanako-NOM Taro-NOM   read that say-PAST
        "Hanako said that Taro read only that book (i.e., there is nothing else he read)."
        "Only about that book, Hanako said that Taro read it (i.e., there is nothing else about which Hanako said that Taro read)."
     c. **SONO HON** -*dake*$_i$ [Hanako-ga   [Taro-ga ec$_i$ yonda to] itta.
        that book-only Hanako-NOM Taro-NOM   read that say-PAST
        "*Hanako said that Taro read only that book (i.e., there is nothing else he read)."
        "Only about that book, Hanako said that Taro read it (i.e., there is nothing else about which Hanako said that Taro read)."

The example in (8b) is two-way ambiguous with respect to the scope of the *dake* phrase. The reading we are interested in is the one in which the *dake* phrase takes its scope within the embedded clause: "Hanako said that Taro read only that book (and there is nothing else he read)." Interestingly, although this reading is available in (8a-b), it is not the case in (8c). Given the paradigm in (8), the relevant generalization can be stated as in (9):

(9) <u>"Scope Reconstruction Effects"</u> (cf. Hoji 1985, Aoyagi 1994)
     dake phrases with a case particle exhibit "scope reconstruction effects" but *dake* phrases without a case particle do not.

3. A Proposal — Association with Focus in Japanese : *"dake"*

A number of arguments have been made to defend the single cycle model in the literature (Epstein et al. 1988, Kayne 1998, 2000, Epstein and Seely 2006, Chomsky 2004 *inter alia*.). Central to this line of works is the claim that a particular structural configuration determining semantic interpretation is established at a particular step of derivation in overt syntax. Note that under the single cycle model, covert operations never affect semantic interpretation, since there is no room for such operations in this model.[3] In what follows, we propose a derivational analysis of *dake* that is compatible with such a single cycle model.

The gist of our derivational analysis is that the syntactic licensing of association with focus involving *dake* can be divided into two parts. An idea behind this is that its whole interpretive process requires two different relations. One is to associate a focused element with *dake*. We claim that this relation is established in overt syntax.

The other is to assure that a DP with *dake* is a quantificational element. When we interpret a quantifier, the following four kinds of information are necessary: the operator, the restriction, the scope and the variable. What is syntactically relevant is "scope-marking." If we mark the scope by movement, the information concerning the variable comes for free, which is exactly what May (1977) intended. Applying the same reasoning to a DP with *dake*, we claim that relevant scope relations are established by overt movement of the *dake* phrase into the Spec of Focus Phrase (FocP).

Before proceeding, we need to make an assumption about Japanese clausal structure. Following Hoshi (2006a, b), we assume the following clausal structure:

(10) $[_{CP} C [_{FocP} Foc [_{TP} T [_{FocP} Foc [_{NegP} Neg [_{vP} v [_{VP} V]]]]]]]$

It is assumed that the TP-internal FocP and the TP-external FocP are optionally generated independent of each other, contingent upon the make-up of the relevant lexical (sub)array or numeration (N).[4]

Now we are in the position to clarify our proposal. Let us go through the relevant portion of the derivation of (1a), which is repeated below as (11):

(11) **JOHN**-*dake*-(ga) hon-o yonda.
      John-only-(NOM) book-ACC read-PAST
      "Nobody other than John read a book."

As we have already suggested, our proposal is that association with focus involving *dake* consists of two steps. The first step is to associate a focused item with *dake*. This licensing relation is established by Merge, as illustrated in (12):
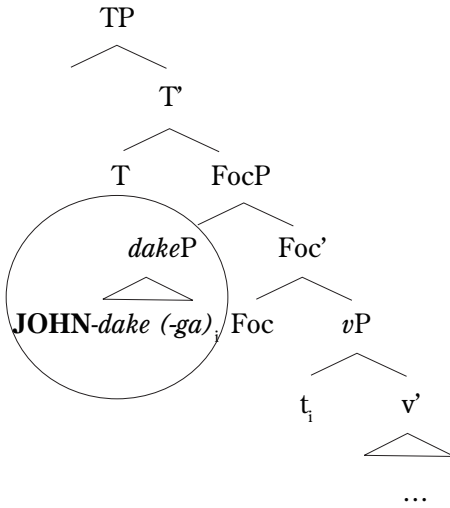
(12) Step 1: Association with Focus by Merge

> *dake* P
> ╱＼
> JOHN$_i$ *dake*'
>   ╱＼
>   *dake*   t$_i$
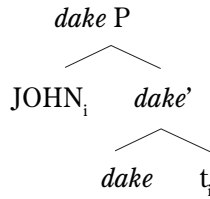
The particle *dake* is merged with the focused item *JOHN*, projecting the *dake*P, with the focused item being moved to [Spec, *dake*P] due to the EPP property of *dake*. We claim that association with focus is licensed at this derivational step and is ready for "shipping" to the semantic interface.

The second step is to determine its scope. On the strongest assumption that the scope relation must be syntactically licensed, we claim that the licensing operation takes place between *dakeP* and a focus phrase (FocP). Look at (13), in which the *dake*P is licensed at [Spec,FocP] (We will abstract away from the exact derivation for producing the final surface word order just for simplicity):[5]

(13)   Step 2: Syntactic Licensing of *dake* P

```
                    TP
                   /  \
                      T'
                     /  \
                    T    FocP
                        /    \
                  dakeP      Foc'
                   /\       /    \
          JOHN-dake (-ga)ᵢ  Foc    vP
                                  /  \
                                 tᵢ    v'
                                      /\
                                     …
```

The tree diagram illustrates the step of derivation where the scope of the *dake*P is determined. The *dake*-phrase, which has already been formed at Step 1, is merged at the Spec of *v* and then undergoes overt movement to [Spec,FocP] in order to get relevant formal features licensed by Agree. To be more specific, we will follow Hoshi (2006a) in assuming that the Foc head has an EPP-feature and uninterpretable focus feature [ufocus] and the *dake*-phrase has an interpretable focus feature [focus] and uninterpretable focus feature [uFoc]. Under this mechanism for Agree and overt movement, the [ufocus] at the Foc head and the [focus] in the *dake*-phrase enters into Agree under matching and the overt movement of the *dake*-phrase to [Spec,FocP] is triggered by the conspiracy of the EPP-feature at the Foc head and the [uFoc] in the *dake*-phrase (see Chomsky 2000 and Watanabe 2005 for a similar idea in handling overt *wh*-movement). It should be emphasized again that the two relations illustrated in (12) and (13) are established in overt syntax proper, contrary to Aoyagi (1998, 1999, 2006).

4. A Derivational Analysis

In this section, we provide accounts for the three properties of *dake*P discussed in section 2, claiming that they are best analyzed as involving the two syntactic relations established in overt syntax.

4.1. Very Local Association

As we have seen, the relation between *dake* and a focused element is very local in that it can only associate with the elements that it attaches to. The relevant examples are repeated below as (14)–(16):

(14) a. **JOHN**-*dake*-(ga) hon-o yonda.
    John-only-(NOM) book-ACC read-PAST
    "Nobody other than John read a book."
  b. John-ga **HON**-*dake*-(o) yonda.
    John-NOM book-only-(ACC) read-PAST
    "John read nothing other than a book."

(15) a. *John-*dake*-(ga) **HON**-o yonda.
    John-only-(NOM) book-ACC read-PAST
    "John read nothing other than a book."
  b. ***JOHN**-ga hon-*dake*-(o) yonda.
    John-NOM book-only-(ACC) read-PAST
    "Nobody other than John read a book."

(16) **JOHN**-*dake*-(ga) hon-o yonda.
    John-only-(NOM) book-ACC read-PAST
    "Nobody other than John read a book."
    "*It only happened that John read a book (and nothing else happened)."

The very local nature of association with focus for *dake* immediately follows from our proposal, because we claim that the association is licensed when Merge applies to *dake* and a focused item. By definition, Merge is a strictly local operation, generating a new syntactic object out of two elements. Thus, there is no room for non-local association with focus with respect to the F-particle *dake*.

4.2. Ordering

Recall that the generalization at issue is that the case particles *ga* and *o* must follow *dake* while this restriction is not imposed on other kinds of particles (e.g. *ni*, *de*, *kara*), as indicated in the contrast in (5a-e), which is reproduced as (17a-e):

(17) a. **JOHN**-*dake*-**ga**/***ga**-*dake*
    John-only-NOM/*NOM-only
    "Nobody other than John"
  b. **HON**-*dake*-**o**/***o**-*dake*

book-only-ACC/*ACC-only

"Nothing other than a book"

c. **JOHN**-*dake*-**ni**/**ni**-*dake*

John-only-DAT/DAT-only

"To nobody other than John"

d. **MARY**-*dake*-**kara**/**kara**-*dake*

Mary-only-from/from-only

"From only Mary/only from Mary"

e. **GAKKO**-*dake*-**de**/ **de**-*dake*

school-only-at/at-only

"At only the school/only at the school"

The generalization at stake has two aspects to be accounted for. One is that only the full-fledged case particles—exponents of structural Case features—obey the ordering requirement. The other is that postpositions are not subject to such a requirement.

Our analysis provides a principled account for these two aspects. Recall that the two independent steps, association with focus by Merge and scope marking by movement, are involved in the phenomenon under discussion. Given the Mirror Principle in the sense of Baker (1988), the ordering requirement implies that *dake* must be merged with a focused item before its projection is licensed in the clausal architecture. This theory-internal statement follows from the cyclic nature of Merge: acyclic application of Merge is not allowed. As illustrated in (18), Case features cannot be licensed prior to association with focus by the application of Merge, because such an operation necessarily violates any version of the strict cycle condition on Merge:

(18) *DP-case particle–*dake* → acyclic merger
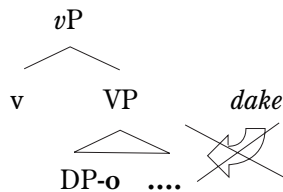
To the extent that our argument above is on the right track, we predict that

postpositions are exempt from the ordering requirement. The reason is that both of the orderings, postposition-*dake* and *dake*-postposition, can be generated before the corresponding constituents are embedded in a larger structure. As such, the strict cycle condition is irrelevant for the cases in (17c-e), which verifies our prediction and in turn supports the claim that the ordering restriction is to be reduced to the cyclic nature of Merge.

4.3. On Licensing at FocP

Recall from our discussion in section 2.3 that what is at issue is to account for the generalization in (9), repeated as (19) for ease of reference:

(19)   "Scope Reconstruction Effects" (cf. Hoji 1985, Aoyagi 1994)
       Dake phrases with a case particle exhibit "scope reconstruction effects" but *dake* phrases without a case particle do not.

Our analysis captures the generalization in the following way. So far we have claimed that the interpretation of *dake* requires the two totally independent steps. Given this, the following configurational patterns should be available, since overwhelming evidence suggests that Japanese allows null resumptive pronouns:[6]

(20)   a. <movement>
          $[_{CP} [_{FocP} \text{Foc} [_{TP} [_{FocP} \textit{dake}P_i \text{ Foc} [_{NegP} \text{Neg} [_{vP} \ldots t_i \ldots]]]]]]$
       b. <resumption>
          $[_{CP} [_{FocP} \text{Foc} [_{TP} [_{FocP} \textit{dake}P_i \text{ Foc} [_{NegP} \text{Neg} [_{vP} \ldots ec_i \ldots]]]]]]$

We claim that *dake*Ps with a case particle undergo overt movement, as illustrated in (20a), whereas those without a case particle employ the resumptive strategy, as shown in (20b). This provides a natural account for the reconstruction asymmetry discussed in section 2.3. Our prediction is that only the derivation involving movement exhibits reconstruction effects. As it turns out, this is verified by the following sets of data:

(21)   a. John-ga **HON-*dake*-o** yoma-nakatta
          John-NOM book-only-ACC read-not-PAST
          "lit. John didn't read only books"
          only>not, not>only
       b. John-ga **HON-*dake*** yoma-nakatta

John-NOM book-only read-not-PAST

"lit. John didn't read only books"

only>not, *not>only

(22) a. Hanako-ga   [Taro-ga   **SONO HON**-*dake*-(**o**)   yonda to] itta.

Hanako-NOM   Taro-NOM   that book-only-(ACC) read   that say-PAST

"Hanako said that Taro read only that book (i.e., there is nothing else he read)."

b. **SONO HON** -*dake*-**o**$_i$ [Hanako-ga   [Taro-ga   t$_i$ yonda to] itta.

that book-only-ACC Hanako-NOM Taro-NOM   read   that say-PAST

"Hanako said that Taro read only that book (i.e., there is nothing else he read)."

"Only about that book, Hanako said that Taro read it (i.e., there is nothing else about which Hanako said that Taro read)."

c. **SONO HON** -*dake*$_i$ [Hanako-ga   [Taro-ga ec$_i$ yonda to] itta.

that book-only   Hanako-NOM Taro-NOM   read   that say-PAST

"*Hanako said that Taro read only that book (i.e., there is nothing else he read)."

"Only about that book, Hanako said that Taro read it (i.e., there is nothing else about which Hanako said that Taro read)."

Further evidence in favor of our analysis comes from island sensitivity. Given that only movement is subject to island constraints, a prediction is that the *dake*P with a case particle exhibits island effects. Indeed, this prediction is borne out by (23):[7]

(23) Island effects : Complex NP

     a. *Dake*P **with** a case particle → island effects

       ?? **SONO HON** -*dake*-o$_i$ Hanako-ga   [t$_i$ yonda hito]-ni atta.

       that book-only-ACC   Hanako-NOM   read person-Dat meet-PAST

       "lit. only that book$_i$, Hanako met the person who read t$_i$."

     b. *Dake*P **without** a case particle → no island effects

       SONO HON -*dake*$_i$ Hanako-ga   [ec$_i$ yonda hito]-ni atta.

       that book-only   Hanako-NOM   read person-Dat meet-PAST

       "lit. only that book, Hanako met the person who read it."

Moreover, the well-known case drop phenomena also provide further support for our analysis. We claim that the *dake*P without a case particle is not derived by

omitting or deleting the case particle, but it is absent throughout the derivation. So, we predict that *dake* phrases without a case particle and other real case drop instances behave completely differently. This prediction seems to be correct, as exemplified by (24):

(24) a. ringo-**o**   Mary-ga tabeta.
          apple-ACC Mary-NOM eat-PAST
          'Mary ate apples.'
      b. *?ringo Mary-ga tabeta.
           apple   Mary-NOM eat-PAST
          'Mary ate apples.'
      c. **RINGO**-*dake*-**o** Mary-ga tabeta.
          apple-only-ACC Mary-NOM eat-PAST
          'Mary ate only apples.'
      d. **RINGO**-*dake* Mary-ga tabeta.
          apple-only Mary-NOM eat-PAST
          'Mary ate only apples.'

The contrast between (24a) and (24b) indicates that an accusative case particle in an ordinary DP can be dropped only if it is adjacent to the verb (Saito 1983, 1985). Such a restriction is not imposed on a *dake* phrase, as shown in (24c-d).

5. Domain Extension? : An Argument for Overt Licensing of *dake*

The present proposal implies that association between *dake* and a focus associate must be very local and *dake* cannot have a "wide focus" reading in the sense of Aoyagi (1998, 1999, 2006), since the relation at hand is established at the step in which Merge applies to the two elements. However, this virtually contradicts Aoyagi's (1998, 1999, 2006) claim that *dake* does extend its domain up to VP. In this section, we claim that such a domain extension is illusory by presenting novel data involving idiom interpretations, which provides further support for our derivational analysis.

Aoyagi (1998: 160–161) argues that association with focus takes place in covert syntax on the basis of (25):

(25) a. John-wa [$_{VP}$ **manga-o yon**]-da-*dake*-de zenzen benkyoo-si-nakatta.
          John-TOP   comics-ACC read-only   at all   study-do-not-PAST

"John only read comics and did not study at all."

b. John-wa [$_{VP}$ **manga**-*dake* yon]-de zenzen benkyoo-si-nakatta.

John-TOP   comics-only read   at all study-do-not-PAST

"lit. John read only comics and did not study at all."

He pointed out that (25b) has the same reading as (25a), suggesting that *dake* in (25b) extends its domain up to the VP.

Note, however, that the acceptability of (25b) does not entail that *dake* extends its domain up to the VP because even if we assign a focus only to the DP *manga* 'comics', (25b) is still acceptable.

To see this, let us start by considering the alternative sets generated by (25b), in which the object DP is focused. Under the theory of alternative semantics as developed in Rooth (1985, 1992), a focused item assigned a focus feature F and the constituents X dominating it have two kinds of semantic values: an ordinary semantic value and a focus semantic value.

The focus semantic value of a focused item α, $[[α]]^f$ is a set of all contextually salient alternatives to $[[α]]$; the focus semantic value of the constituent X dominating a focused item α, $[[X]]^f$, is a set of all contextually salient alternatives, formed by replacing a focused item α in its ordinary semantic value with alternatives. To be more concrete, the focus semantic value $[[COMICS]]^f$ is the set of all alternatives to $[[COMICS]]$, as shown in (26b). Thus, the focus semantic value of (26a) is the set of propositions of the form "John read x":

(26)   a.   John read **COMICS.**

b. $[[\textbf{COMICS}]]^f$ = {[[a math book]], [[magazines]], [[a newspaper]], [[*Angels and Demons*]], [[comics]]...}

c. $[[John read \textbf{COMICS}]]^f$

= {[[John read a math book]], [[John read magazines]], [[John read a newspaper]], [[John read *Angels and Demons*]], [[John read comics]]...}

On a common view that the focus-sensitive particle *only* has two semantic roles, viz. quantifying over the alternative set and characterizing the alternative set as a singleton set, the meaning of the sentence in (27) can be stated as in (28):[8)]

(27)   John read only COMICS.

(28)   a. If John read something, it is a comic:

∀x (x ∈ C & read (j, x) → x = [[comic]])

b. C ⊆ [[comic]]^f

The claim made by (28a) is that anything that John read has properties of being comics, but importantly it does not make any claim that he never did other than reading.

Keeping this in mind, let us return to (25b), which is repeated below as (29):

(29)   John-wa [$_{VP}$ **MANGA**-*dake* yon]-de zenzen benkyoo-si-nakatta.
          John-TOP   comics-only read   at all   study-do-not-PAST
          "lit. John read only comics and did not study at all."

It is important to note that the example (29) only checks the semantic compatibility between the two propositions: *John read only comics* and *John did not study at all*. The point is that the first proposition does not specify the possibility of whether John did anything other than reading comics. To put differently, the alternative set derived by the focused DP *MANGA* 'comics' does not include the proposition "John did not study at all." Even if the semantics of *only* forces the alternative set of propositions to be the singleton set: [[John read only comics]]^f = {[[John read comics]]}, the first proposition could be compatible with the second, irrespective of whether *dake* 'only' takes its scope up to the VP or not. Therefore, (29) does not verify the domain extension of *dake*, which, in turn, suggests that evidence in favor of the LF movement of *dake* no longer exists.

If the above argument is on the right track, we need to reexamine whether the domain extension of *dake* is possible or not. One may notice that complications about the interpretation of examples like (29) originate in the nature of the semantics of focus. Informally, the sentence involving a focused material generates a set of propositions, sometimes called "presuppositions" in a generous sense. The very existence of such propositions complicates the situation in (29), because there is likely to be some inference rules that make the reading in question available.[9] If so, then we need a better test that excludes this kind of interfering factors.

To our knowledge, the best way to do so is to use idiom chunks. It is generally accepted that a part of an idiom is not a semantic primitive in its own right. Given this, it follows that it cannot be focused, simply because a focused material must denote something in worlds in order to be contrasted with others. If the particle *dake* could extend its domain up to the VP by LF movement, it ought to be able to attach to a relevant part of an idiom. However, this does not seem to be the case.[10] Consider (30) and (31):

(30) a. John-ga   hanasi-ni   mizu-o   sasita.
    John-NOM conversation-DAT water-ACC pour-PAST
    "John put a damper on the conversation."

    b. *John-ga   hanasi-ni   mizu-*dake* -(o) sasita.
     John-NOM conversation-DAT water-ACC pour-PAST
    "lit. John put only a damper on the conversation."

    c. John-ga   hanasi-ni   mizu-*sae /mo* sasita.
    John-NOM conversation-DAT water-*even /also* pour-PAST
    "lit. John even/also put a damper on the conversation."

(31) a. John-ga hi-ni abura-o sosoida
    John-NOM fire-DAT oil-ACC pour-PAST
    "John added oil to fire."

    b. *John-ga hi-ni abura-dake-o sosoida
    John-NOM fire-DAT oil-only-ACC pour-PAST
    "John added only oil to fire."

    c. John-ga hi-ni abura-*sae/mo* sosoida
    John-Nom fire-DAT oil-even/also pour-PAST
    "John even/also added oil to fire"

The most telling examples are (30b) and (31b). If *dake* could extend its domain up to VP, they could in principle be interpreted roughly on a par with the readings in (32) and (33), respectively, contrary to fact:

(32) John-ga   hanasi-ni mizu-o sasu-koto-dake sita.
    John-NOM conversation-DAT water-ACC pour-thing-only do-PAST
    'John only put a damper on the conversation.'

(33) John-ga hi-ni abura-o sosogu-koto-dake sita.
    John-NOM fire-DAT oil-ACC pour-thing-only do-PAST
    'John only added oil to fire.'

This strongly indicates that alleged covert movement does not exist, thus providing empirical support for our derivational approach to association with focus for the F-particle *dake* in Japanese.[11]

6. Some Extension to Association with Focus in Chinese : *lian* XP *dou*

Our empirical coverage is not limited to Japanese. In this section, we argue

that association with focus in Chinese can be treated in the same way. First, take a look at the paradigm in (34):

(34) a. Zhangsan mai le zheben shu
         Zhangsan buy ASP this-CL book
         'Zhangsan bought this book.'
    b. Zhangsan **lian** ZHEBEN SHU **dou** mai le.   (← focus shift)
         Zhangsan lian this-CL book   dou buy ASP
         'Zhangsan bought even this book.'
    c. *Zhangsan **dou** mai le   **lian** ZHEBEN SHU.
         Zhangsan dou buy ASP lian this book
                                      (= adapted from Shyu 1995: 7)

(34a) reflects the basic SVO order in Chinese. In contrast, (34b) involves association with focus between *lian* 'even' and *zheben shu* 'this book.' Note that the focus item *zheben shu* 'this book' has to be shifted to the left of the predicate, sandwiched between *lian* and *dou*, as illustrated by the contrast between (34b) and (34c). The surface form in (34b) can be accommodated under our derivational approach to association with focus on the assumption that *lian* is of the same class as *dake* and *dou* is an overt phonetic realization of the head of the FocP.

    Next, let us consider the derivation for (34b), as represented in (35)-(36):

(35)   Step 1: Association with Focus by Merger

              lian P
              ⟋‾‾
         lian   ZHEBEN SHU
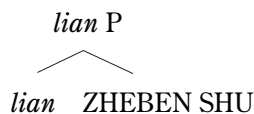
(36)   Step 2: Syntactic Licensing of the *lian* P
        a. ...[$_{FocP}$ [$_{Foc}$ dou]] ... [lian ZHEBEN SHU] ...
        b. ...[$_{FocP}$ [lian ZHEBEN SHU] $_i$ [$_{Foc}$ dou]] ... t$_i$ ...

As shown in (35), *lian* 'even' and the focused item *zheben shu* 'this book' are merged, projecting the *lian* phrase. Then, the whole *lian* phrase is overtly moved to [Spec,FocP] headed by *dou*, yielding the surface order of *lian zheben shu dou*, as illustrated in (36). The two-step derivation in (35)–(36) for association with focus in

Chinese is parallel to the one involving *dake* in Japanese and it reveals two points which are not visibly observed in Japanese. One is that, although the Foc head to be linked with the *dake* phrase is phonetically empty in Japanese, the counterpart in Chinese is phonetically realized as *dou*, providing a piece of empirical evidence for the postulation of the FocP. The other is that, while overt movement of the *dake* phrase to [Spec,FocP] is string-vacuous, the analogue in Chinese is clearly non-string-vacuous, with the *lian* phrase being shifted to the left across the verb and the aspectual marker, as shown in (34b).

Furthermore, the configuration in (36) indicates that, while *lian* makes up a constituent with *zheben shu*, *dou* does not constitute a syntactic unit with *lian zheben shu*. Accordingly, it is predicted that *lian zheben shu* can be moved as a unit. This prediction is borne out, as witnessed in (37a), which has the derivation as depicted in (37b):

(37)   a. **Lian** ZHEBEN SHU Zhangsan **dou** mai le.
             lian   this-CL book   Zhangsan dou buy ASP
             'Even for this book, Zhangsan also bought.'
                                 (= Shyu 1995: 6, (5))
         b. [lian ZHEBEN SHU]$_i$…Zhangsan [$_{FocP}$ t$_i$ [$_{Foc}$ dou]] …t$_i$ …

To sum up, the above observation demonstrates that association with focus in Chinese provides a visible piece of morphological and syntactic evidence in support of our derivational approach to association with focus in this paper. In this sense, our proposal in section 3 originally put forth for association with focus in Japanese is extendable to deal with the relevant phenomenon in Chinese, which belongs to a disparate family of languages.

7. Conclusion

In this paper, we have argued that association with focus involving the F-particle *dake* in Japanese can be best captured in overt syntax proper, without recourse to any covert operations in the LF component, within the framework of derivational approach to syntax (Epstein et al. 1988, Kayne 1998, 2000, Epstein and Seely 2006, Chomsky 2004 *inter alia*.).

More specifically, it was demonstrated that association with focus with respect to the F-particle *dake* should be derived in two-steps: (i) merger of *dake* and its focus associate; (ii) overt movement of the *dake* phrase to [Spec,FocP].

(i) guarantees association with focus between *dake* and its focus associate and (ii) accounts for the scope-marking of the *dake* phrase. It was also shown that our analysis of association with focus concerning *dake* can be applied to the counterpart in Chinese in a revealing fashion. To the extent that our proposal for association with focus is on the right track, it lends further credence to the single cycle model for syntax in the sense of Chomsky (2004).

Acknowledgments

Notes

* Keio University

** Asahikawa Medical College

1) We will not deal with another F-particle *bakari* 'only' in Japanese, which apparently has a semantic content similar to *dake* 'only' in the language, since the former F-particle can be characterized as a positive-polarity item in the sense that it will occur only with an affirmative predicate.

2) But, see Aoyagi (1998, 1999, 2006), who claims that a certain kind of domain-extension is real with regard to *dake*. We will return to this point in section 5.

3) Here, we use the term "covert operations" in the traditional sense: covert operations in the standard Y-model. An interesting question would arise as to whether those operations can be regarded as operations after Spell-Out in multiple Spell-Out model (cf. Nissenbaum 2000).

4) Our assumption about the two types of Focus Phrases may be supported by the distribution of displaced foci in natural languages. In many languages, focused items move into specified syntactic positions, which can be classified into four types with respect to their landing sites: sentence-initial (cf. Ouhalla 1999 for Standard Arabic), sentence-final (cf. Tuller 1992 for Podoko), pre-verbal (cf. Horváth 1986 for Hungarian), and post-verbal (cf. Odden 1984 for Bantu). As pointed out in Drubig and Saffer (2001), these landing sites tend to be shared by wh-phrases. Given the absence of rightward *wh*-movement (cf. Kayne 1994), we have to assume as least two functional projections to account for the relevant distribution.

5) In (13), the nominative case-particle *ga* is attached to the subject DP, as is standardly assumed, but see Hoshi (2006b) for a different treatment. The particular choice in the text here does not affect the

following discussion in any significant way.

6) For resumptive pronouns in Japanese, see Hoji (1985), Kuroda (1965), Ishii (1991), and Aoyagi (1994) among others.

7) There seems to be a strong consensus that (true) resumptive pronouns have the following three properties:

(i)   Absence of reconstruction effects

(ii) Immunity to island constraints

(iii) Lack of weak crossover (=WCO) effects

However, we cannot prove that the resumptive pronouns under consideration remedy WCO violations. For some reason, Japanese does not have any item corresponding exactly to bound pronouns in English. The following paradigm indicates that even long-distance A'- scrambling remedies WCO violations:

(iv) a.   *$[_{DP}$Soitu$_i$no /pro$_i$ hahaoya]-ga [$_{CP}$Hanako-ga   dare$_i$-o   aisiteiru to]

the idiot-GEN /pro mother-NOM   Hanako-NOM   who-ACC   love that

itta   no

say-PAST Q

"lit. His$_i$ mother said that Hanako loves who$_i$?"

b.   (?)Dare$_i$-o   [$_{DP}$ soitu$_i$no /pro$_i$ hahaoya]-ga [$_{CP}$ Hanako-ga   t$_i$ aisiteiru to]

who-ACC the idiot-GEN /pro- mother-NOM   Hanako-NOM   love that

itta   no

say-PAST Q

"lit. Who$_i$, his$_i$ mother said that Hanako loves?"

   Thus, it is to be noted that the absence of the contrast between (vb) and (vc) below is irrelevant for the discussion.

(v) a.   *[$_{DP}$ soko$_i$-o   tekitaisisiteiru kaisya]-ga   [$_{CP}$ zyuumin-ga   **TOYOTA** -dake-o

that place-ACC be-hostile company-NOM   the residents-NOM   Toyota-only-ACC

uttaeta to] omotta.

sue-PAST that think-PAST

'*The company which is hostile to it$_i$ thought that the residents sued only Toyota$_i$.'

b.   (?)**TOYOTA**-dake$_i$-o [$_{DP}$ soko$_i$-o   tekitaisisiteiru kaisya]-ga   [$_{CP}$ zyuumin-ga t$_i$

Toyota-only-ACC that place-ACC be-hostile company-NOM   the residents-NOM

uttaeta to] omotta.

sue-PAST that think-PAST

'Only Toyota$_i$, the company which is hostile to it$_i$ thought that the residents sued t$_i$.'

c.   (?)**TOYOTA**-dake$_i$ [$_{DP}$ soko$_i$-o tekitaisisiteiru kaisya]-ga [$_{CP}$ zyuumin-ga ec$_i$

Toyota-only that place-ACC be-hostile company-NOM the residents-NOM

uttaeta to] omotta.

sue-PAST that think-PAST

'Only Toyota$_i$, the company which is hostile to it$_i$ thought that the residents sued t$_i$.'

See also Ueyama (2003) and references therein for the lack of WCO effects in Japanese, where the

fronted object carries the accusative case-particle, although she uses *sae* 'even' rather than *dake* 'only.'

8) For the ease of expositions, we adapt the analysis of *only* along the line proposed by Rooth (1992). But nothing hinges on this particular choice.

9) The relevant "apparent wide focus" interpretation in (29) is only illusory, arising from the semantic entailment relation. As an illustration, consider the following pair of sentences:

(i) sakuban osoku kaetta   Hanako$_i$-wa   kuuhukudatta ga tukareteita node,

    last night late return-PAST Hanako-TOP   was hungry but was tired   because

    'Because Hanako, who returned home late last night, was hungry but tired,

    a.   pro$_i$ mizu-o   nonda dake de, nemuttesimatta.

          water-ACC drink-PAST only fall-asleep-PAST

       she only drank water and fell asleep.'

    b.   pro$_i$ mizu-dake nonde, nemuttesimatta.

          water-only drink fall-asleep-PAST

       she drank only water and fell asleep.'

               (= adapted from Aoyagi 2006:129 (17))

Note that (ia) means that Hanako did not do anything other than drinking water before going to bed, whereas (ib) means that Hanako drank nothing but water before going to bed with the possibility of her having done something else or not being left open. Thus, the situation expressed by (ia) is included in the one expressed by (ib) in terms of a set relation. In other words, if (ia) is true, then (ib) is also true, but not necessarily vice versa, or (ia) asymmetrically entails (ib). However, given the relevant context in (i), an apparent bijection relation somehow seems to be forced upon our inference plausibly in relation to conversational implicatures. The given context in (i) may well naturally produce an inference that Hanako might have done nothing or at best a minimal thing prior to falling asleep. Thus, the situation expressed in (ia) fits most naturally into this kind of context. Therefore, if we are given the sentence in (ib), we are most likely to non-logically infer that it would correspond to the situation expressed in (ia). Hence, the apparent effect of association with "wide focus" for F-particle *dake* in Japanese. We have to leave a full investigation into this matter to future research, though.

    Incidentally, in this connection, consider the following paradigms in (ii) and (iii) involving the F-particle *dake* and the K-particle *mo* in Japanese, respectively:

(ii) a.   [Taroo-ga   Hanako-ni atta]-dake da.

        Taro-NOM Hanako-DAT meet-PAST-only be-PAST

        'It was only that Taro met Hanako.'

    b.   Taroo-ga   Hanako-dake-ni atta.

        Taro-NOM Hanako-only-DAT meet-PAST

        'Taro met only Hanako.'

(iii) a.   [Taroo-ga   Hanako-ni ai]-mo sita.

        Taro-NOM Hanako-DAT meet-also do-PAST

        'It also happened that Taro met Hanako.'

    b.   Taroo-ga Hanako-ni-mo atta.

Taro-NOM Hanako-DAT-also meet-PAST

'Taro met Hanako also.'

Note that, although there is an entailment relation in (ii) such that if (iia) is true, then (iib) is also true, as already seen in (i), such a relation does not hold in (iii) under the reading in which the whole [ ] is the focus associate of *mo*. That is, even if (iia) is true, (iib) is not necessarily true. Given this contrast between the F-particle *dake* 'only' and the K-particle *mo* 'also', it seems that the following line of analysis suggests itself:

(iv) The F-particle *dake* does not induce association with focus with an element inside the bracketed clause in (iia), as predicted by our direct merger analysis of association with focus for *dake*. On the other hand, the K-particle *mo* can indeed induce such a long-distance association with focus to obtain various "narrow focus" interpretation, targeting an element inside [ ] in (iii) (see Hoshi 2006a,b for an analysis of the K-particle *mo* along this line).

10) A caveat is in order here with respect to the use of idiom chunks. In general, idioms vary in the degree of "frozenness." In what follows, we selected an idiom appropriate for the test at stake on the basis of the two criteria relevant for frozenness properties: (i) impossibility of modifying an idiom chunk to be focused; (ii) impossibility of scrambling an idiom chunk to be focused. It is crucial not to employ any idioms that fall short of such criteria.

11) Given our analysis for the F-particle *dake* in the text, (30c) and (31c) suggest that "kakari-joshi, or K-particles (= agreement-inducing particles)" such as *sae* 'even' and *mo* 'also' need a different treatment than the F-particle. See Hoshi (2006a,b) for some discussion on this issue.

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