

# The DP-Internal Genitive Licensing and Argument/Adjunct Asymmetries

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## 1. Introduction

It has been taken for granted that Genitive Case is licensed inside nominal phrases. However, as far as we are aware, no attention has been paid to the fact that Genitive Case is assigned only within nominal phrases that serve as arguments, but not within those that is in the position of adjunct. This argument/adjunct asymmetry in the licensing of Genitive Case is found in both English and Japanese. Examples (1) and (2) below illustrate the asymmetry.

- (1) a. John wanted [that/his time] back.  
b. John was crying [that/\*his time].
- (2) a. John-wa [sono/zibun-no zikan-o] torimodosi-takatta.  
John-TOP that/self-GEN time-ACC take.back-wanted  
'John wanted that/his time back.'  
b. John-wa [sono/\*zibun-no zikan] naite-ita.  
John-TOP that/\*self-GEN time crying-was  
'John was crying that/\*his time.'

The English examples in (1) show that Genitive-marked possessors can appear in an argument nominal but not in an adjunct nominal. In (1a), the bracketed nominal phrase acts as the internal argument of the verb *wanted*, and within this nominal phrase, the possessor *his* is properly marked with Genitive Case. In (1b), on the other hand, the bracketed nominal phrase is an adjunct expression, and the Genitive-marked possessor is not licensed in this nominal phrase. The same kind of argument/adjunct asymmetry is also attested in Japanese, as shown in (2). In (2a) the possessor *zibun* is marked with Genitive Case *-no* inside the bracketed nominal phrase, which is the internal argument of the verb *torimodosi-takatta* 'wanted to take back'. In (2b), however, the possessor *zibun* cannot be marked with *-no* within the bracketed nominal phrase, which is in the function of adverbial adjunct.

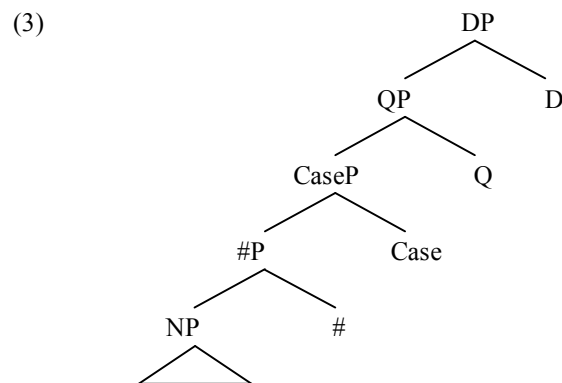
The argument/adjunct asymmetry in the licensing of Genitive Case illustrated in (1) and (2) does not receive a sufficient explanation from the traditional idea that covert determiners assign or license Genitive Case (Ritter 1991). As indicated in the above examples, both argument and adjunct nominals can be definite. This means, if definiteness is specified to the determiner head, that nominal phrases, whether arguments or adjuncts, can project determiner phrases. Thus, it is very likely that covert determiners may be allowed to appear in either argument or adjunct nominals. If so, the Genitive-marked possessors *his* and *zibun* in (1b) and (2b) would be licensed, contrary to the fact.

In this paper, we propose a principled explanation for the argument/adjunct asymmetry in the licensing of Genitive Case. Our explanation is mainly based on Watanabe's (2006) proposal on the nominal structure in Japanese. Watanabe proposes that the Japanese nominal has a highly articulated internal structure, positing three functional phrases between the determiner phrase DP and the noun phrase NP. One of these phrases is CaseP, whose head is a position for Structural Case to be morphologically realized. CaseP will play a central role in the present paper. As for this phrase and its head, we will propound two hypotheses. One is that CaseP projects only in arguments but not in adjuncts, and the other is that the Case head is responsible for the licensing of Genitive Case. The first hypothesis will be both theory-internally and empirically motivated. This hypothesis conspires with the second hypothesis to account for the argument/adjunct asymmetry in the licensing of Genitive Case. We will also hypothesize that the English nominal projects CaseP internally as the Japanese one does. By so doing, the cases in both English and Japanese will be accounted for in a unified way.

This paper is organized as follows. In section 1, we outline Watanabe's (2006) analysis of the syntactic cartography inside the Japanese nominal phrase. In section 2, we append some revisions to Watanabe's proposal. The revisions appended comprise our proposal in this paper. Based on the proposal, in section 3, we account for the argument/adjunct asymmetry in the licensing of Genitive Case in (1) and (2). In this section, we also carry over the analysis of (1) and (2) to other kinds of argument/adjunct asymmetries in the licensing of Genitive Case. We are concerned therein with the Nominative/Genitive conversion in Japanese relative clauses and the English gerundive clause with Genitive subject. In section 4, we indicate an implication of the analysis in this paper to the distribution of nominal phrases. Section 5 is the conclusion in this paper.

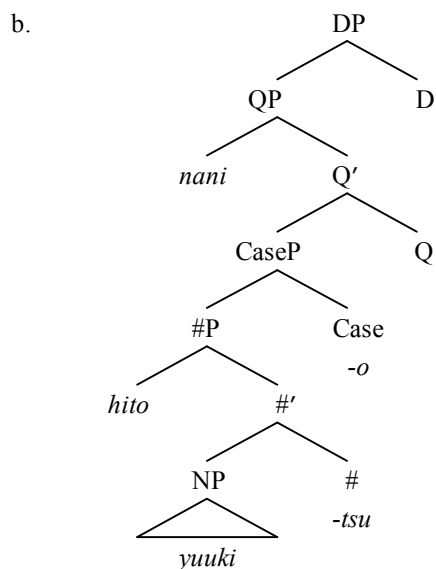
**2. The nominal structure in Japanese: Watanabe (2006)**

Watanabe (2006) proposes to assign the syntactic structure in (3) to Japanese nominal phrases.



In (3), three layers of functional projections are posited between NP and DP. #P is projected just above NP, and it accommodates both numeral expressions and classifiers. The former and the latter are generated in the specifier of #P and its head, respectively. The predecessor of #P is Num(eral)P, which was originally addressed by Ritter (1991), to our knowledge, and employed by other researchers including Li (1999), Cheng and Sybesma (1999), Fukui and Takano (2000), Borer (2005), and others. QP is projected just below DP, and its specifier is a syntactic position for quantifiers including indeterminate pronouns. The analysis of positing an independent projection for quantifiers was also proposed by Sigurðsson (1993) and others. CaseP is placed between NP and QP, and its head is a syntactic strand to realize Structural Case. The presence of CaseP was first suggested by Ritter (1988) (her KaseP) for Hebrew, and similar ideas were developed by Holmberg (1991) and Sigurðsson (1993), Fukui and Takano (2000), among others. Accordingly, the complex nominal expression *yuuki-o nani-hito-tsu* ‘any courage’ in (4a), for instance, is assigned the underlying structure in (4b).

- (4) a. *yuuki-o nani-hito-tsu*  
 courage-ACC what-1-CL  
 ‘any courage’



Watanabe motivates the nominal structure in (3) for the purpose of accounting for the ordering variation of numeral-classifier (NC) + noun + Case combination in the domain of noun phrase. Consider (5).

- (5) a. John-wa [CD san-mai-o] katta.  
 John-TOP CD 3-CL-ACC bought.  
 'John bought three CDs.'  
 b. John-wa [san-mai-no CD-o] katta.  
 c. John-wa [CD-o san-mai] katta.

In (5a), the NC complex *san-mai* comes between the head noun *CD* and the Case-marker *-o*. In (5b), the head noun is preceded by the NC complex and followed by the Case-marker, and in (5c), the head noun is followed by both the NC complex and the Case-marker.

In order to capture the diversity of NC + noun + Case combinations in (5), Watanabe postulates three sorts of phrasal movement internal to the nominal structure in (3). First, NP moves to a specifier of CaseP. Although he is agnostic about whether or not NP moves to a specifier of #P, he contends that the movement of NP to a specifier of CaseP takes place obligatorily. He assumes, mainly following Sigurðsson (1993), that this movement is mediated by the agreement relation between the Case head and

the Case feature of the head noun N. Second, #P moves to a specifier of QP. This phrasal movement, he assumes, goes through the agreement relation between the Q head and #P in features concerning the mass/count distinction. Third, CaseP moves to a specifier of DP. Watanabe suggests that the movement of CaseP takes place when CaseP enters into the agreement relation with the D head in indefiniteness. The latter two sorts of phrasal movement apply optionally in general.

The nominal structure in (3) with the three sorts of phrasal movement posited above leads us to account for the variation of NC + noun + Case combinations in (5). The surface order of noun + NC + Case in (5a) obtains by the obligatory movement of NP to a specifier of CaseP, because this movement forces NP to precede #P and the latter remains in situ. The order of NC + noun + Case in (5b) gets by when #P moves to a specifier of QP. Due to this movement, the NC complex in #P precedes the NP in the specifier of CaseP. Finally, when CaseP moves to a specifier of DP, the string of noun + Case appears before the NC complex as shown in (5c). Interestingly, as Watanabe notes, nominal expressions are always interpreted as non-specific when the string of noun + Case is followed by the NC complex as in (5c) (Kamio 1977). The non-specific interpretation in this order can be considered a reflection of the agreement relation in indefiniteness between the D head and CaseP. In consequence, the nominal phrases in (5) receive the surface structures in (6).<sup>1</sup>

- (6) a. [DP [QP [CaseP CD<sub>NP</sub> [#P san t<sub>NP</sub> [# -mai]] [Case -o]] Q] D] (= (5a))  
 b. [DP [QP [#P san t<sub>NP</sub> [# -mai]] [CaseP CD<sub>NP</sub> t<sub>#P</sub> [Case -o]] Q] D] (= (5b))  
 c. [DP [CaseP CD<sub>NP</sub> t<sub>#P</sub> [Case -o]] [QP [#P san t<sub>NP</sub> [# -mai]] t<sub>CaseP</sub> Q] D]  
 (= (5c))

Note in passing that the homophone of the Genitive Case-marker *-no* is attached to the NC complex before the head noun. Watanabe suggests that the attachment of *-no* to non-clausal expressions in the prenominal

1. In addition to the ordering patterns in (5), Watanabe takes into account another pattern as in (i).

- (i) John-wa san-mai CD-o katta.  
 John-TOP 3-CL CD-ACC bought

Example (i) is different from (5b) in that *-no* does not attach to the NC complex *san-mai*. Watanabe claims the word order in (i) to be derived by extraction of CaseP from DP in tandem with scrambling of the remnant DP. However, he does not devote much space to this ordering pattern. We will also go into detail about (i).

domain is done merely for some morphological reason that we will not delve into here. What we want to mention is that the Genitive Case-marker *-no*, which is a main concern in this paper, and the simply morphological substance *-no* in (5b) are quite different things. For concreteness, we contend in this paper that Genitive Case is assigned to constituents in thematic relations (including the possessive relation) with lexical elements like verbs and nouns. In addition, Genitive Case is structurally represented in the head of CaseP very like Nominative and Accusative Case (cf. Abney 1987 and Takezawa and Whitman 1998). The morphological substance *-no* does not have any of the properties featuring the Genitive Case-marker *-no*. In (5b), the NC complex *san-mai* to which *-no* is attached is not in any thematic relation with the head noun *CD*, merely modifying it. Moreover, the morphological substance *-no* is not provided with a unique structural position, as Watanabe suggests.

A further contrast between the Genitive Case-marker *-no* and the morphological substance *-no* can be seen in (7) (these two homophones are both allocated the same gloss GEN simply for convenience).

- (7) a. John-wa [ano/\*zibun-no koro] yoku naite-ita.  
 John-TOP that/\*self-GEN days often crying-was  
 ‘John used to cry those days/\*his days.’
- b. John-wa [kodomo-no/go-sai-no koro] yoku naite-ita.  
 John-TOP child-GEN/5-year-GEN days often crying-was  
 ‘John used to cry in his childhood/at five years of age.’

As seen in (7a) and as also indicated in the outset of this paper, the Genitive Case-marker *-no* on possessors is not licensed inside nominal phrases in the position of adjunct. In contrast, the morphological substance *-no* can be attached to prenominal elements even in adjunct nominals, as illustrated in (7b). In (7b), *kodomo* ‘child’ and *go-sai* ‘5 years old’ only modify the head noun *koro* ‘days’ that follow them, and do not enter into a possessive relation with that noun. For example, *kodomo-no koro* ‘childhood’ cannot be interpreted as days that are possessed by children. In this paper, we focus on the licensing of Genitive Case, putting aside the morphological substance *-no*.

Turning back to the nominal structure in (3), Watanabe extends the analysis of (5) based on (3) toward the variation of noun + indeterminate combinations as in (8) below.

- (8) a. \* John-wa [yuuki nani-mo-o] dasa-nakat-ta.  
 John-TOP courage what-PRT-ACC show-NEG-PAST  
 'John didn't show any courage.'  
 b. \* John-wa [yuuki nani-o-mo] dasa-nakat-ta.  
 c. John-wa [nan-no yuuki-o-mo] dasa-nakat-ta.  
 d. John-wa [yuuki-o nani-mo] dasa-nakat-ta.

To begin with, as is well known, Japanese *wh*-pronouns including *nani* 'what', *dare* 'who', *doko* 'where' and the like are interpreted as indeterminate by means of being bound by the quantifier particle *-mo* (see Kishimoto 2001, for example). The indeterminate expression thus created has to be bound by clausal negation. Such circumstance is generally called negative concord. Watanabe proposes to place the *wh*-pronoun and the Q-particle in a specifier of QP and the head of DP, respectively. The placement thus proposed is appropriate because the *wh*-pronoun possesses quantification and the Q-particle then has to be placed in a higher position than the *wh*-pronoun so as to bind it. In fact, Takahashi (2002) also proposes the placement of the Q-particle *-mo* in the D head.

In (8a), the indeterminate expression *nani-mo* 'any' comes between the head noun *yuuki* and the Case-marker *-o*, and in (8b), it is separated by the epenthesis of *-o* and preceded by the head noun. These ordering combinations are unacceptable. The unacceptability of (8a) and (8b) falls into place under the nominal structure in (3) with the *wh*-pronoun and the Q-particle in the designated positions. The surface orders in (8a) and (8b) never obtain in (3) even when any sort of phrasal movement posited therein takes place. The order in (8c), where the string of noun + Case is sandwiched between the *wh*-pronoun and the Q-particle, is a natural consequence under the structure in (3) with the obligatory movement of NP to a specifier of CaseP. The attachment of *-no* to the *wh*-pronoun, again, is a morphological affair. The order in (8d), where the string of noun + Case is followed by the indeterminate expression, also derives straightforwardly by phrasal movement of CaseP to a specifier of DP.

Watanabe furthermore proposes to analyze the diversity of noun + minimizer combinations in the domain of nominal phrase in terms of the structure put forth in (3). Consider (9) and (10) below.

- (9) a. \* John-wa [yuuki nani-hito-tsu-o] dasa-nakat-ta.  
 John-TOP courage what-I-CL-ACC show-NEG-PAST  
 'John didn't show any courage.'  
 b. John-wa [nan-no yuuki hito-tsu(\*-o)] dasa-nakat-ta.  
 c. ??John-wa [nani-hito-tsu-no yuuki-o] dasa-nakat-ta.

- d. John-wa [yuuki-o nani-hito-tsu] dasa-nakat-ta.
- (10) a. \* John-wa [yuuki nani-hito-tsu-o-mo] dasa-nakat-ta.  
 John-TOP courage what-I-CL-ACC-PRT show-NEG-PAST  
 ‘John didn’t show even a courage.’
- b. \* John-wa [yuuki nani-hito-tsu-mo-o] dasa-nakat-ta.
- c. John-wa [nan-no yuuki-hito-tsu-o-mo] dasa-nakat-ta.
- d. John-wa [nani-hito-tsu-no yuuki-o-mo] dasa-nakat-ta.
- e. John-wa [yuuki-o nani-hito-tsu-mo] dasa-nakat-ta.

The *wh*-pronoun *nani* ‘what’ and the NC-complex *hito-tsu* ‘one’ jointly constitute a minimizer expression. First and foremost, the surface orders in (9a), (10a), and (10b) are impossible patterns under the structure in (3), even though any sort of phrasal movement postulated applies therein. The orders in (9b) and (10c) naturally obtain because NP obligatorily moves to a specifier of CaseP. However, (9b) turns to be unacceptable when the Case-marker *-o* is morphologically realized. We will go back to this issue later. The orders in (9d) and (10e) derive when CaseP moves to a specifier of DP.

The remaining issues concern the unacceptability of (9b) in the presence of the Case-marker *-o*, the grammatical contrast between (9c) and (10d), and how to make up the string of *wh*-pronoun + NC in the pronominal domain in (10d). In (9b), the acceptability is seriously deteriorated just by the deletion of the Case-marker *-o*. The lack of the Q-particle *-mo* also affects the acceptability, as seen in (9c) and (10d). (10d) seems to raise a question for Watanabe’s analysis of the Japanese nominal structure. The *wh*-pronoun *nani* and the NC complex *hito-tsu* in (10d) are bonded before the head noun *yuuki*. In order to give rise to this surface order, at least #P must raise to a specifier of QP since NP is doomed to occupy a specifier of CaseP. Recall, however, that the *wh*-pronoun is already base-generated in a specifier of QP.

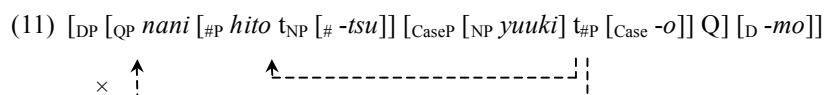
As for the first and the second issue, Watanabe makes the assumption that CaseP has to raise to a specifier of DP in the absence of the Q-particle *-mo* in the D head. He is more specific about this assumption by stating that CaseP is needed in a specifier of DP for the purpose to compensate the lack of morphological realization of *-mo* in the D head. The Q-particle *-mo*, he suggests, is the morphological shape of the focus feature in D in the circumstance of negative concord (for more details, see Watanabe 2004). When the focus feature is not realized as *-mo* in the D head, it requires a morphological support in a specifier of DP instead. CaseP is the best candidate for this morphological support: it is only the phrase that is allowed to move to a specifier of DP, since nothing but it enters into the



agreement relation with the D head. We understand the requirement of CaseP raising in the absence of *-mo* to be at work only when the Case-marker is realized in the Case head. Otherwise, (9b) would be unacceptable even though the Case-marker *-o* is deleted.

If this assumption is on the right track, the unacceptability of (9b) and the contrast between (9c) and (10d) follow straightforwardly. In (9b), CaseP does not move to a specifier of DP in the absence of *-mo*. This is signaled by the presence of the Case-marker *-o* on the edge of the bracketed nominal phrase. Therefore, (9b) is unacceptable since it does not meet the requirement of CaseP raising in the absence of *-mo*. The same holds in (9c), where the realization *-o* on the edge of the bracketed nominal phrase means that CaseP lingers in situ regardless of the lack of *-mo* in the D head. (10d) is irrelevant to the requirement of CaseP raising in the absence of *-mo*, since *-mo* is morphologically realized.

As for the issue in (10d), Watanabe adopts Richard's (1997, 2001) theory on the creation of multiple specifiers. Richards proposes that movement is a tucking-in operation when it generates another specifier; that is, whenever another specifier is created, it must be the inner-most. This conception is guaranteed by economical consideration. The creation of the inner-most specifier is shorter, and hence more economical, than that of the outer-most specifier. According to this theory, in (10d), the NC complex *hito-tsu* in #P, when raised to a specifier of QP, is tucked in underneath the *wh*-pronoun *nani* in the specifier already created. This is schematized in (11).



In this section, we have sketched out Watanabe's proposal on the Japanese nominal structure. It has turned out that his proposed structure of Japanese nominals is compatible with a wide-range of ordering combinations among the head noun, the NC complex, the indeterminate expression, and the Case-marker in the domain of nominal phrase. It is thus safe to conclude that the proposed structure is empirically robust. The nominal structure in (3) will provide a basis for throwing light on the argument/adjunct asymmetry in the licensing of Genitive Case. In particular, the existence of CaseP inside nominal phrases is important to our explanation for the asymmetry. This will become clear in the following sections.

### 3. A few revisions to Watanabe (2006)

In this section, we want to address some compensatory revisions to Watanabe's proposal on the nominal structure in Japanese. The revisions to be propounded are mainly pertinent to CaseP and its head.

First, we conjecture that CaseP projects only when the nominal is in an argument position. This is verified from a theoretical point of view. CaseP is a projection for Structural Case, which must be licensed under structural relations with so-called "Case assigners" (e.g. Tense, transitive verbs, and so forth). Therefore, CaseP is banned from projecting in a position that Structural Case is not licensed. If CaseP were to project in such a position, the derivation could not converge due to the failure of licensing Structural Case on its head. Given that every position for argument has need of Structural Case and all positions for adjunct have nothing to do with Structural Case, then CaseP projects only in the former positions but not in the latter.

The lack of CaseP in adjunct nominals predicts that phrasal movement inside such nominals is restricted only to the #P raising to a specifier of QP, because without CaseP, neither NP nor CaseP itself does not move within nominal phrases. This prediction is borne out empirically. Consider (12).

- (12) a. John-wa [san-zikan-no aida] naite-ita.  
           John-TOP 3-time-GEN period crying-was  
           'John was crying for three hours'  
       b. \* John-wa [aida san-zikan] naite-ita.

As shown in (12), the surface order of complex numeral (CN) + noun in adjunct nominals is fixed unlike that in argument ones (the reason for naming the numeral expression *san-zikan* as complex numeral will come to light below). We saw in the last section that in argument nominals, numeral expressions are allowed to appear either before or after the head noun (see (5)). In adjunct nominals, on the other hand, the CN must be placed in the prenominal domain, as in (12a) (we repeat here to say that the attachment of *-no* to modifying constituents in the prenominal domain is simply a manipulation in morphology). The unacceptability of (12b) indicates that the noun-CN order is impossible in such nominals. If CaseP were present in adjunct nominals as well as in argument ones, the fixed ordering of CN + noun in (12) would be hard to explain. Accordingly, we are led to the conclusion that CaseP projects in argument nominals but not in adjunct ones. In consequence, we gain two types of nominal structures in (13).

- (13) a. [DP D [QP Q [CaseP Case [#P # [NP N]]]]] (order irrelevant)  
 b. [DP D [QP Q [#P # [NP N]]]] (order irrelevant)

Before proceeding, we have to be more specific about the internal structure of adjunct nominals. We saw above that CaseP is absent in such nominals. Other functional projections, QP and #P, appear to be present in adjunct nominals. Indeed, either indeterminate expressions or CNs can be freely used inside this type of nominals. (14) illustrates the point.

- (14) a. John-wa [go-hun/zikan/nen-no aida] benkyoo-sita.  
 John-TOP 5-minitu/hour/year-GEN period study-did  
 'John studied for five minutes/hours/years.'  
 b. John-wa [hito-toki-mo]/[nan-pun/zikan-mo] netei-na-i.<sup>2</sup>  
 John-TOP 1-time-PRT what-minute/hour-PRT sleep-NEG-PRE  
 'John does not sleep any time/for any minute/hour.'

As (14a) shows, a variety of numeral expressions is available in adjunct nominals. Indeterminate expressions are also available in such nominals, as seen in (14b). One might wonder, then, whether numeral expressions can co-occur with indeterminate expressions within adjunct nominals as in *nani-hito-tsu-no aida* 'even one period'. This combination in an adjunct nominal is unacceptable for the reason that we do not know. Although the fact that the minimizer expression *nani-hitotsu* is used in argument nominals but not in adjunct ones poses an intriguing question to the syntax of nominal phrase, for the present purpose it suffices to recognize that functional projections other than CaseP project in adjunct nominals.

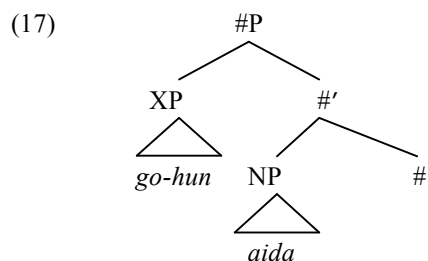
Another contrast between argument nominals and adjunct ones lies in the mass/count distinction of head nouns used therein. In Japanese, argument nominals avail themselves of either mass or count nouns as their head nouns, while the head nouns used in adjunct nominals are limited only to temporal nouns such as *zikan* 'time', *toki* 'time', *koro* 'days', *aida* 'period', and so forth (see (14) above and (15) below). Temporal nouns are classified as mass nouns but not as count ones. In English, locative and manner nouns, in addition to temporal nouns, can be barely used as adjunct nominals (see (16) below, cited from Larson 1985).

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2. In (14b), the combination of *wh*-pronouns and the Q-particle *-mo* is interpreted as indeterminate only when phrasal accent is put on the *wh*-pronoun. If the Q-particle receives phrasal accent, emphatic interpretations emerge. In this case, (14b) is translated as 'John has not slept for one second/for many minutes/hours'.

- (15) a. John-wa [ano basyo \*(de)] yoku ason-da.  
 John-TOP that place in often play-PST  
 ‘John used to play in that place.’
- b. John-wa [sono hoofoo \*(de)] benkyoo-sita.  
 John-TOP that way in study-did.  
 ‘John studied in that way.’
- c. John-wa [sono riyuu \*(kara)] yume-o akirameta.  
 John-TOP that reason from dream-ACC gave.up  
 ‘John gave up his own dream for that reason.’
- (16) a. I saw John [that day].  
 b. You have lived [someplace warm and sunny].  
 c. You pronounced my name [that way].

For Watanabe (2006), the mass noun is assigned the structure in (16) when modified by a numeral expression.



(17) represents the structure below CaseP. It should be noted here that the numeral expression *go-hun* is buried inside XP in the specifier of #P and the # head is not occupied by any classifier (Watanabe leaves open what XP is labeled). In this respect, the nominal structure for mass nouns is different from that for count nouns, where numerals and classifiers are generated in the specifier of #P and its head, respectively. In addition, particles like *hun* ‘minute’ and *nen* ‘year’ in (14) do not belong to classifiers, regarded as measuring expressions (Muromatsu 1998). This is the reason that we have dubbed numeral expressions such as *san-zikan* ‘3 hours’ as complex numerals (CN). In this paper, we assume that adjunct nominals are provided with the internal structure of (17) in lack of CaseP.

A second hypothesis that we want to suggest as a revision for Watanabe’s proposal is that English also has the fine-grained structure of nominals in (3). What is significant to our analysis of argument/adjunct

asymmetries in the licensing of Genitive Case is that English as well as Japanese projects CaseP inside nominals. The concept behind this hypothesis comes from the Uniformity Principle (Chomsky 2001), formulated in (18).

- (18) In the absence of compelling evidence to the contrary, assume languages to be uniform, with variety restricted to easily detectable properties of utterances.

(Chomsky 2001: 2)

Although we do not have positive evidence for the presence of CaseP in English at hand, we will show, in dependence on (18), that in terms of the hypothesis mentioned above, the asymmetries under consideration will be uniformly accounted for in both English and Japanese.

Third and finally, we hypothesize that the head of CaseP has the role of licensing Genitive Case. If this hypothesis is on the right track, then it is predicted that Genitive Case is licensed only within nominal phrases that appear in argument positions, since our first hypothesis suggests that CaseP be present in argument nominals but not in adjunct nominals. This prediction amounts to an explanation for argument/adjunct asymmetries in the licensing of Genitive Case. In the following section, we will describe it in more details.

#### 4. Argument/adjunct asymmetries in the licensing of Genitive Case

The three hypotheses proposed in the last section combine to embody the central proposal in this paper. In this section, we account for argument/adjunct asymmetries in the licensing of Genitive Case in terms of that proposal.

##### 4.1. The simple cases

We start by the cases in (1) and (2), repeated as (19) and (20) below.

- (19) a. John wanted [that/his time] back.  
b. John was crying [that/\*his time].
- (20) a. John-wa [sono/zibun-no zikan-o] torimodosi-takatta.  
John-TOP that/self-GEN time-ACC take.back-wanted  
'John wanted that/his time back.'

- b. John-wa [sono/\*zibun-no zikan] naite-ita.  
 John-TOP that/\*self-GEN time crying-was  
 ‘John was crying that/\*his time.’

According to the proposal in this paper, the bracketed nominal phrases in the a-sentences and those in the b-sentences receive the underlying structures in (21a) and (21b), respectively.

- (21) a. [<sub>DP</sub> *that/sono* D [<sub>QP</sub> Q [<sub>CaseP</sub> Case [<sub>#P</sub> # [<sub>NP</sub> *his/zibun-no*  
 [<sub>N</sub> *time/zikan*]]]]]]] (order irrelevant)  
 b. [<sub>DP</sub> *that/sono* D [<sub>QP</sub> Q [<sub>#P</sub> # [<sub>NP</sub> *\*his/\*zibun-no* [<sub>N</sub> *time/zikan*]]]]]]  
 (order irrelevant)

In (21a), CaseP is present because the nominal phrase is generated in an argument position. Hence, Genitive Case on the possessor *his/zibun* is licensed by the Case head. In (21b), CaseP is absent because the nominal phrase is in the position of adjunct, and therefore Genitive Case on the possessor is not licensed. If CaseP were to project in (21b), Structural Case on its head could not be licensed because of the position in which the nominal phrase is generated. In this way, the present proposal accounts for the argument/adjunct asymmetry in the licensing of Genitive Case in (19) and (20).

#### 4.2. Japanese relative clauses and Nominative/Genitive conversion

We show next that the proposal in this paper gives a straightforward account for an argument/adjunct asymmetry with respect to the Nominative/Genitive conversion in Japanese relative clauses.

In the literature on Japanese syntax, it is a well-known fact that in Japanese, Nominative Case on the subjects of relative clauses can alternate with Genitive Case (Harada 1971, 1976; Miyagawa 1993; Ochi 2001; Watanabe 1994, 1996; Hiraiwa 2000, 2002; Taguchi 2008; among many others). This conversion between Nominative and Genitive Case, however, is blocked when the relative clause modifies a head noun in adjunct position (Fujita 1988). The relevant examples are given in (22) and (23).

- (22) John-wa [Mary-ga/-no waratta toki-o] oboeteita.  
 John-TOP Mary-NOM/-GEN laughed time-ACC remembered  
 ‘John remembered the time (when) Mary laughed.’

- (23) John-wa [Mary-ga/\*-no waratta toki] naite-ita.  
 John-TOP Mary-NOM/\*-GEN laughed time crying-was  
 'John was crying the time (when) Mary laughed.'

In (22) and (23), the head noun *toki* 'time' is modified by the relative clause within the bracketed portion. The complex nominal phrase in (22) is in the function of the internal argument of the main verb *oboeteita* 'remembered', while that in (23) is placed in an adjunct position. As shown, the subject of the relative clause can be marked with either Nominative or Genitive Case in (22), but only with Nominative Case in (23).

The contrast between (22) and (23) is accounted for in terms of the proposal in this paper. According to the proposal, the complex nominal phrases in (22) and (23) are assigned the underlying structures in (24a) and (24b), respectively.

- (24) a. [DP [QP [CaseP [#P [NP [TP *Mary-ga/-no waratta*] [N *toki*]]]]] [Case -o]]  
 b. [DP [QP [#P [NP [TP *Mary-ga/\*-no waratta*] [N *toki*]]]]]

In (24), we assume, following Murasugi (1991, 2000) and many others, that relative clauses in Japanese project up to TP but not to CP. In (24a), the complex nominal phrase projects CaseP internally, because it is placed in an argument position. In (24b), on the other hand, CaseP is not projected as the complex nominal phrase is in the position of adjunct. Hence, Genitive Case on the subject of the relative clause is licensed in (24a) but not in (24b). It is worth to recall here that we are assuming in this paper that Genitive Case is assigned not only to possessors but also to constituents under thematic relations. In (24a), as the subject *Mary* is in a thematic relation with the verb *waratta* 'laughed' in the relative clause, it is properly marked with Genitive Case. Nominative Case on the subject *Mary* in both (24a) and (24b) is assigned by the Tense of the relative clause. Thus, the present proposal enables us to account for the contrast between (22) and (23).

Before closing this subsection, we want to mention why Nominative/Genitive conversion does not occur in the English relative clause.

- (25) John remembered [the time (when) Mary/\*Mary's laughed].

A crucial difference between English and Japanese relative clauses is said in the literature to lie in the level of projection: the English relative clause projects up to CP, while the top-most projection of the Japanese relative clause is TP but not CP. Then, the structure of the complex nominal phrase in (25) is represented as in (26).

- (26) [<sub>DP</sub> *the* D [<sub>QP</sub> Q [<sub>CaseP</sub> Case [<sub>#P</sub> # [<sub>NP</sub> [<sub>N</sub> *time*] [<sub>CP</sub> (*when*) C *Mary*/  
\**Mary's laughed*]]]]]]]

Assuming in terms of the current framework of generative grammar that CP is a phase (Chomsky 2000, et seq), the question falls into place. In this framework, operations across phases are required to obey the constraint in (27).

- (27) In phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ , only H and its edge are accessible to such operations.

(Chomsky 2000: 108)

In (26), in order to license Genitive Case on the subject *Mary*, the Case head must operate across the CP phase. This operation violates the constraint in (27). This is why the English relative clause does not allow for Nominative/Genitive conversion. The constraint in (27) does not affect the licensing of Genitive Case in (22), since the Japanese relative clause constitutes a non-phase TP.

#### 4.3. English gerundive clauses with Genitive subjects

Finally, we argue that the present proposal sheds light on an argument/adjunct asymmetry concerning the English gerundive clause with Genitive subjects.<sup>3</sup>

Since Abney (1987), it has been a consensus that gerundive clauses in English are structured in much the same way as nominal phrases. In this view, it is not unreasonable to assume that English gerundive clauses have CaseP inside them just like nominal phrases. Then, this construction is assigned a syntactic structure as in (28).

- (28) my seeing you  
[<sub>DP</sub> D ... [<sub>CaseP</sub> Case ... [<sub>NP</sub> *my* [<sub>N</sub> *seeing*] *you*]]]

If our proposal is correct, English gerundive clauses are allowed to project CaseP in the position of argument. Then, it is predicted that the subject of a gerundive clause can be marked with Genitive Case only when the clause appears in an argument position. This prediction is borne out,

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3. We owe the topic in this subsection to Marcel den Dikken (personal communication, 2007).



indeed. Consider (29).

- (29) a. [My seeing you] was very nice.  
b. \* It was very nice [my seeing you]

In (29a), the gerundive phrase is the subject of the sentence, being placed in an argument position. The genitive pronoun *my* in this phrase is the subject of the gerundive verb *seeing*, being properly licensed inside the phrase. In (29b), although the gerundive phrase behaves as the unique argument of the adjective *nice*, it is not in the canonical position for argument. It can be conjectured that the gerundive phrase in (29b) undergoes a rightward extraposition to adjoin to a certain clausal projection. Although we have no idea about the exact position of an extraposed gerundive phrase, such position is unquestionably assigned no Structural Case directly. Hence, it is possible to regard the position of the extraposed gerundive phrase in (29b) as a position that does not demand any Structural Case. When a gerundive phrase is placed in such a position, its subject cannot be marked with Genitive Case, as the unacceptability of (29b) indicates (cf. Battistella 1983). The contrast in (29) is exactly what is predicted under the proposal in this paper. Therefore, the present proposal is reconciled with it that the English gerundive clause also has an argument/adjunct asymmetry in the licensing of Genitive Case.

### 5. Implication

We have so far explained several types of argument/adjunct asymmetries in the licensing of Genitive Case, in terms of the proposal that we propound as a set of compensatory modifications for Watanabe's analysis of the nominal structure. The proposal in this paper has an implication to the distribution of nominal phrases.

In the era of Government-and-Binding approach, nominal phrases were claimed to be subject to the Visibility Condition (Chomsky 1986), formulated as in (30).

- (30) An element is *visible* for theta-marking only if it is assigned Case.  
(Chomsky 1986: 94, emphasis original)

This condition dictates that a nominal phrase can receive a theta-role only when it is placed in a position to which Case is assigned. For example, the nominal phrase *that time* in (31a) below is properly assigned a theta-role, because it is in the position that the transitive verb *remembered* assigns

Accusative Case. The nominal phrase *that time* in (31b) does not demand a theta-role because it is not an argument. Hence, it does not need to be assigned Structural Case, under the condition in (30).

- (31) a. John remembered [that time]  
 b. John was crying [that time]

However, the Visibility Condition in (30) is problematic in that it is unclear why theta-role assignment presupposes Case assignment. Our proposal captures the distribution of nominal phrases without facing such a problem. It suggests that a nominal phrase should project CaseP, whose head is a syntactic position for Structural Case, only when it is placed in a position where Structural Case is licensed. If every position for Structural Case corresponds to one where arguments can appear and every argument demands a theta-role, then it follows that CaseP must be projected where theta-roles are assigned. For more details, consider (31) again. In (31a), the nominal phrase *that time* is assigned both Accusative Case and a theta-role by the verb *remembered*, hence it must project CaseP internally as in (32a) below. Otherwise, the Case-assigning property of the verb would not be saturated so that the derivation could not converge. In (31b), on the other hand, the nominal phrase *that time* is assigned neither Structural Case nor a theta-role because of its non-argument status. Therefore, CaseP should not be present in this phrase as in (32b) below. If it were, Structural Case on its head could not be licensed, then giving rise to the failure of convergence.

- (32) a. [DP *that* D [Case Case ... [NP [N *time*]]]] (in argument position)  
 a'. \* [DP *that* D [NP [N *time*]]] (in argument position)  
 b. [DP *that* D [NP [N *time*]]] (in adjunct position)  
 b'. \* [DP *that* D [Case Case ... [NP [N *time*]]]] (in adjunct position)

Accordingly, our proposal in this paper accounts in place of the Visibility Condition in (30) for how nominal phrases are distributed. As a result, that condition is safely eliminated from universal grammar. This is a desirable consequence in the spirit of minimalism, where any attempt is encouraged to reduce the number of grammatical devices as far as possible.

## 6. Conclusion

In this paper, we have developed an analysis of argument/adjunct asymmetries in the licensing of Genitive Case, on the basis of Watanabe's (2006) proposal on the structure of nominal phrases. After we made it clear

that his proposal is empirically reliable, we appended three revisions to it: (i) CaseP projects in argument nominal but not in adjunct nominal; (ii) not only Japanese but also English has CaseP projection inside nominal phrases; and (iii) the Case head has the role of licensing Genitive Case. Combining these revisions into the main proposal in this paper, we examined several types of argument/adjunct asymmetries in the licensing of Genitive Case, some of which concern the Nominative/Genitive conversion in Japanese relative clauses and the English gerundive clause with Genitive subjects. These asymmetries were shown to fall into place under the present proposal. In addition, we indicated that the analysis developed here has an implication to the distribution of nominal phrases. In this implication, it was found that our proposal takes the place of the Visibility Condition in the Government-and-Binding approach. Although the present analysis might contain some problems and issues that we have not noticed yet, we conclude that it contributes the development and the future research of the syntax on nominal phrases and the licensing of Genitive Case.

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