

DP-internal Structure in Tagalog

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1 Introduction

This paper considers the DP-internal structure in Tagalog¹, particularly the ordering of DP-internal elements, namely nouns, adjectives, singular demonstrative pronouns, and numerals. When we observe the noun-modification of adjectives and the noun-specification of demonstrative pronouns, Tagalog ordering of the DP-internal elements is relatively free because each can come either before or after the noun. Thus, the DP-internal structure in Tagalog seems to not exist. However, investigation of the word order of other combinations of DP-internal elements reveals five restrictions in Tagalog, and the distinction between grammatical and ungrammatical word orders cannot be explained without postulating the DP-internal structure. In this paper, I will show that postulation of the DP-internal structure syntactically explains the grammatical and ungrammatical word orders of Tagalog.

The organization of this paper is as follows: In Section 2, I present basic data regarding the word order of the DP-internal elements and clarify the restrictions on Tagalog word order. Section 3 postulates the DP-internal structure in Tagalog and explains positions of adjectives, numerals, and demonstrative pronouns within this structure. In Section 4, grammatical and ungrammatical word orders are analyzed using N-movement under the postulated DP-internal structure. Section 5 discusses two issues derived from the N-movement analysis. Then, I will conclude this paper.

2 Basic Data: Tagalog Word Order of DP-internal Elements

This section provides the basic data on the word order of DP-internal elements in Tagalog, which are nouns, adjectives, singular demonstrative pronouns, and numerals. First, I will address how adjectives, singular demonstrative pronouns, and numerals each modify/specify a noun. Then, I present the word order of nouns and the following combinations of two different elements: singular demonstrative pronouns and adjectives, singular demonstrative pronouns and numerals, and numerals and adjectives. By doing so, I will demonstrate that although the word order appears to be free, it is actually constrained, and will clarify the restrictions on word order.

2.1 Word Order of Two DP-internal Elements Let us discuss the word order of nouns and each of the following DP-internal elements: adjectives, singular demonstrative pronouns, and numerals. Tagalog adjectives can modify a noun pre-nominally as in (1a). (1b) shows that they can also modify a noun post-nominally (Ramos & Resty 1990, Schachter & Otones 1972, and Yamashita 2010). A linker particle, which appears in the context of modification/specification^{2,3}, is glossed as LNK. (Note: sources of examples

¹The Tagalog language is spoken by approximately 22 million people, mainly around the capital city of Manila in the Philippines (Yamashita 2010). It belongs to the Austronesian language family, and its basic word order is VSO (a head-initial language) (Scontras & Nicolae 2014).

²The phonological realization of the linker is determined by the last sound of the first word.

(i) When the last sound is a vowel, *-ng* attaches (ex. mangga-**ng** matamis ‘sweet mango’).

(ii) The attachment of *-g* to the last sound occurs when an alveolar nasal /n/ or a glottal stop /ʔ/ is the last sound of the first word (ex. bakasyon-**g** maikli ‘short vacation’).

(iii) When the first word ends with a consonant except for the alveolar nasal /n/ or the glottal stop /ʔ/, *na* is added as a separate word after the first word (ex. masarap **na** pagkain ‘delicious food’).

(Ramos & Resty 1990, Schachter & Otones 1972, Scontras & Nicolae 2014, and Yamashita 2010)

³The linker is assumed to be inserted morphologically and is not structurally represented in reference to the Japanese genitive-like linker *no*, which receives the morphological treatment proposed by Watanabe (2006). Watanabe analyzes that the assignment of a unique structural position for Japanese *no* is impossible because it attaches to non-clausal prenominal elements of any kind, as can be seen in the examples below. (Note: since *no* is glossed as genitive (GEN) in Watanabe (2006), I follow the same convention in this paper.)

(i) san-satsu-**no** Chomsky-nitsuite-**no** hon
three-cl.-GEN Chomsky-about-GEN book
‘three books about Chomsky’

(Watanabe 2006: 256)

Due to the free attachment of Japanese *no*, it appears to be inserted at the morphological stage.

are indicated only if I use the examples directly from the sources such as books and journals. In a case where the examples are elicited from native speakers, there is no indication of the sources.)

- (1) a. Adj+N
 bago-ng kaklase
 new-LNK classmate
 'new classmate'
- b. N+Adj
 kaklase-ng bago
 classmate-LNK new

Similar to adjectives, demonstrative pronouns can be placed either in the pre-nominal position as in (2a) or the post-nominal position as in (2b) (Schachter & Otanes 1972, and Yamashita 2010).

- (2) a. Dem+N
 ito-ng kaklase
 this-LNK classmate
 'this classmate'
- b. N+Dem
 kaklase-ng ito
 classmate-LNK this

Focusing on the facts presented so far in which the ordering of nouns and either adjectives or demonstratives is free, all the word orders in a noun phrase seem to be free.

However, we can see that the word order is not completely free by looking at the data for noun-modification of numerals. This is because (3) indicates that numerals appear only pre-nominally when modifying a noun (Yamashita 2010).

- (3) a. Num+N
 isa-ng kaklase
 one-LNK classmate
 'one classmate'
- b. *N+Num
 *kaklase-ng isa
 classmate-LNK one

The word order list for two DP-internal elements is shown below.

Table 1

(1)Adj, N	(2)Dem, N	(3)Num, N
a. Adj+N	a. Dem+N	a. Num+N
b. N+Adj	b. N+Dem	b. *N+Num

Based on (3), it is apparent that there is a restriction on Tagalog word order within a noun phrase.

2.2 Word Order of Three DP-internal Elements I will now analyze the sequence when two different elements modify/specify a noun so that five restrictions on word order can be clarified. (4) is a case in which two different elements follow a noun. The ungrammaticality is attributed to the fact that Tagalog does not allow two elements to be placed after a noun, regardless of the category or the order of the two different elements (i.e., the first restriction is *N+○+○).

- (4) a. *N+Dem+Adj
 *kaklase-ng ito-ng bag
 classmate-LNK this-LNK new
 'this new classmate'
- b. *N+Adj+Dem
 *kaklase-ng bago-ng ito
 classmate-LNK new-LNK this
- c. *N+Dem+Num
 *kaklase-ng ito-ng isa
 classmate-LNK this-LNK one
 'this one classmate'
- d. *N+Num+Dem
 *kaklase-ng isa-ng ito
 classmate-LNK one-LNK this

The Tagalog linker indicates a similar pattern. It is added to a number of elements in the context of modification/specification. The data which I will present in Section 2 show that the linker attaches to nouns, adjectives, demonstrative pronouns, and numerals. Furthermore, Scontras & Nicolae (2014) reveal that the linker appears in the modification of attributive adjectives, adverbs, other nouns, and relative clauses. On the other hand, in the case of predicative adjectives, predicative adverbials, predicative nominals and matrix clauses, the linker does not appear. Since the Tagalog linker appears between a modifier/specifier and a modified/specified element in a noun phrase, it cannot be structurally represented. Therefore, it is more likely that the linker is inserted morphologically.

- e. *N+Num+Adj
 *kaklase-ng isa-ng bago
 classmate-LNK one-LNK new
 ‘one new classmate’
- f. *N+Adj+Num
 *kaklase-ng bago-ng isa
 classmate-LNK new-LNK one

With respect to singular demonstratives and adjectives specifying /modifying a noun, the contrast between (5a) and (5c), where the demonstrative pronoun and the adjective appear before the noun, shows that the adjective cannot precede the demonstrative pronoun. Even if the noun is placed between the demonstrative pronoun and the adjective as in (5b) and (5d), it is impossible that the adjective precedes the demonstrative pronoun (i.e., the second restriction is *Adj>Dem).

- (5) a. Dem+Adj+N
 ito-ng bago-ng kaklase
 this-LNK new-LNK classmate
- b. Dem+N+Adj
 ito-ng kaklase-ng bago
 this-LNK classmate-LNK new
- c. *Adj+Dem+N
 *bago-ng ito-ng kaklase
 new-LNK this-LNK classmate
 ‘this new classmate’
- d. *Adj+N+Dem
 *bago-ng kaklase-ng ito
 new-LNK classmate-LNK this

Observing singular demonstratives and numerals that specify/modify a noun, (6a) is the only grammatical word order. This is contrasted with (6c) in terms of the position of the demonstratives and the numerals. In other words, placing demonstratives after numerals is prohibited in Tagalog (i.e., the third restriction is *Num>Dem). Further, (6b) is ungrammatical because the numeral is placed after the noun based on the fact as seen in (3b) (i.e., the fourth restriction is *N>Num).

- (6) a. Dem+Num+N
 ito-ng isa-ng kaklase
 this-LNK one-LNK classmate
- b. *Dem+N+Num
 *ito-ng kaklase-ng isa
 this-LNK classmate-LNK one
- c. *Num+Dem+N
 *isa-ng ito-ng kaklase
 one-LNK this-LNK classmate
 ‘this one classmate’
- d. *Num+N+Dem
 *isa-ng kaklase-ng ito
 one-LNK classmate-LNK this

Let us observe the noun-modification of numerals and adjectives. By comparing the cases where these modifiers precede the noun as in (7a) and (7c), as well as the cases where these modifiers sandwich the noun as in (7b) and (7d), we can see that adjectives cannot precede numerals (i.e., the fifth restriction is *Adj>Num).

- (7) a. Num+Adj+N
 isa-ng bago-ng kaklase
 one-LNK new-LNK classmate
- b. Num+N+Adj
 isa-ng kaklase-ng bago
 one-LNK classmate-LNK new
- c. *Adj+Num+N
 *bago-ng isa-ng kaklase
 new-LNK one-LNK classmate
 ‘one new classmate’
- d. *Adj+N+Num
 *bago-ng kaklase-ng isa
 new-LNK classmate-LNK one

Table 2 below gives a summary of the observations.

Table 2

Dem, Adj, N	Dem, Num, N	Num, Adj, N
(5a) Dem+Adj+N	(6a) Dem+Num+N	(7a) Num+Adj+N
(5b) Dem+N+Adj	(6b) *Dem+N+Num	(7b) Num+N+Adj
(5c) *Adj+Dem+N	(6c) *Num+Dem+N	(7c) *Adj+Num+N
(5d) *Adj+N+Dem	(6d) *Num+N+Dem	(7d) *Adj+N+Num
(4a) *N+Dem+Adj	(4c) *N+Dem+Num	(4e) *N+Num+Adj
(4b) *N+Adj+Dem	(4d) *N+Num+Dem	(4f) *N+Adj+Num

(8) summarizes the five restrictions regarding the order of the DP-internal elements.

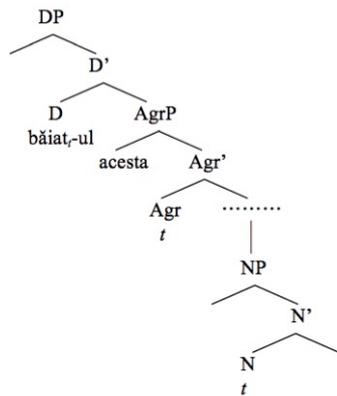
- (17) a. băiat-ul acesta b. acesta băiat
 boy-the this this boy
 'this boy'

(Brugé 2002: 16)

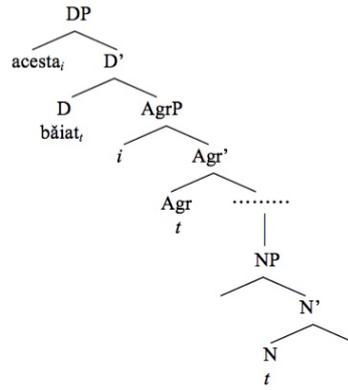
(18) [DP D [AgrP Dem Agr ...⁶ [NP N]]]

In the post-nominal specification in (18a), as illustrated in (19a), the demonstrative pronoun *acesta* remain in the base-position, which is Spec of AgrP immediately dominated by DP. Also, the N-head *băiat* rises to D-head, which is occupied by the definite article *-ul*. The possibility of the N-to-D movement implies that Spec is the only possible position for the moved demonstrative pronouns to be placed when they specify nouns pre-nominally. Accordingly, in the pre-nominal specification in (18b), the demonstrative pronoun rises to Spec of DP as shown in (19b).

(19) a.



b.



The postulation of Spec of DP as the position in which demonstrative pronouns are realized can explain (20), especially ungrammaticality of (20a), where the adjective *fruous* appears at the beginning of the noun phrases.

- (20) a. *Adj+Dem+N b. Dem+Adj+N c. Dem+N+Adj
 ***fruous**-ul acesta băiat acesta **fruous** băiat acesta băiat **fruous**
 nice-the this boy this nice boy this boy nice
 'this nice boy'

(Brugé 2002: 16)

The presence of the demonstrative pronoun *acesta* blocks the movement of the adjectival phrase from Spec of a functional projection, which dominates NP and which is dominated by AgrP, to Spec of DP. Hence, it is appropriate to posit that demonstrative pronouns appear in Spec of DP.

The same pattern as Rumanian can be seen in Tagalog, which allows both the pre-nominal and post-nominal specification of demonstratives. In order for demonstratives to appear post-nominally, N-head is considered to move over demonstratives targeting a higher head, and it implies that the possible place for demonstrative pronouns to appear pre-nominally is one of the Spec positions in the DP-internal structure. I suggest that demonstrative pronouns are realized in Spec of DP because examples and their grammatical judgments which correspond to (20) are seen in (5c), (5a), and (5b). In short, we can explain the ungrammaticality of (5c) as the demonstrative pronoun *ito* blocks the adjective *bago* from doing so. Accordingly, Spec of DP is the appropriate position for demonstrative pronouns to appear.

⁵The definite article *-ul* is present in the post-nominal specification as in (17a) while it is absent in the pre-nominal specification as in (17b). The syntactic reason for it is beyond the scope of this thesis.

⁶This symbol indicates the existence of some functional projections such that adjectives occupy their Specs although Brugé (2002) does not mention about it.

4 Syntactic Analysis of Tagalog Word Order

This section will demonstrate that Tagalog word order within a noun phrase can be syntactically explained under the DP-internal structure postulated in Section 3 by applying N-movement as proposed for Romance languages by Cinque (1994). After reviewing Cinque (1994), I will provide a syntactic account for grammatical and ungrammatical word orders in turn.

4.1 Cinque (1994): N-movement Cinque compares Romance and Germanic languages in terms of the position of adjectival phrases in a noun phrase, and proposes that although the base-position of adjectival phrases is the same, whether N-movement is present or absent makes a difference on the surface position. Here are the examples of a noun phrase in Italian, a Romance language as in (21), and English, a Germanic language, as in (22).

(21) Italian

- a. *AdjP+N+Complement
*L'italiana invasione dell'Albania
the-Italian invasion of Albania
- b. N+AdjP+Complement
L'invasione italiana dell'Albania
the-invasion Italian of Albania
- c. *N+Complement+AdjP
*L'invasione dell'Albania italiana
the-invasion of Albania Italian
'The Italian invasion of Albania' (Cinque 1994: 21)

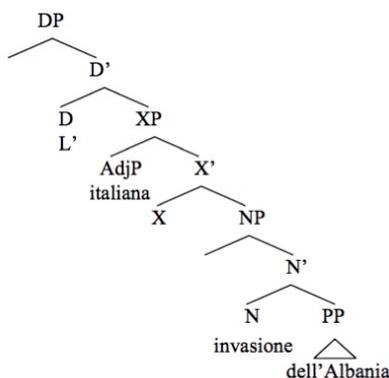
(22) English

- a. AdjP+N+Complement
The Italian invasion of Albania
- b. *N+AdjP+Complement
*The invasion Italian of Albania
- c. *N+Complement+AdjP
*The invasion of Albania Italian

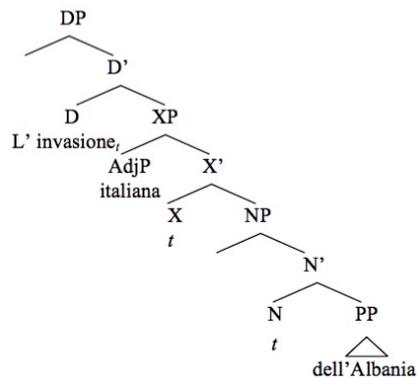
The only possible order in Italian is a N+AdjP+Complement sequence such as in (21b), whereas the order in English is a AdjP+N+Complement sequence as seen in (22a). In order to analyze (21), Cinque proposes that (21a) derives (21b) by raising N-head to a higher head if the adjectival phrases are assumed to be generated on the left side of N⁷. The adjectival phrase is base-generated in the same position as in (23a) for Romance languages and (24a) for Germanic languages. However, the movement of N is obligatory for Romance as shown in (23b), whereas the same movement is prohibited in Germanic as shown by (24b).

(23) Romance (Italian)

a. structure for *(21a)

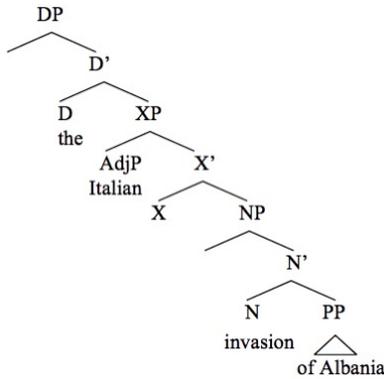


b. structure for (21b)

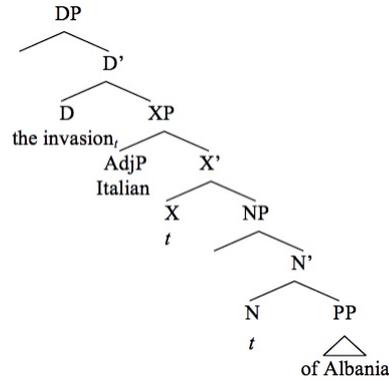


⁷As for an alternative approach, (1b) derives from (1c) by relocating the complement to the post-adjectival position if the adjectival phrase is base-generated on the right side of N. Whether it can apply to analysis in Tagalog is left open for future research.

(24) Germanic (English)
 a. structure for (22a)



b. structure for *(22b)



I adopt Cinque's proposal of N-movement for Tagalog and explain the word order within a noun phrase.

4.2 Grammatical Word Order I will start by explaining the Tagalog grammatical word orders listed below.

- (25) a. Adj + N: (1a) b. N + Adj: (1b) c. Dem + N: (2a) d. N + Dem: (2b)
 e. Num + N: (3a) f. Dem+Adj+N: (5a) g. Dem+N+Adj: (5b) h. Dem+Num+N: (6a)
 i. Num+Adj+N: (7a) j. Num +N +Adj: (7b)

Each of these follows one of the following two patterns: no movement of any element and the movement of N-head to #-head. I will begin with an explanation of grammatical word orders without movement.

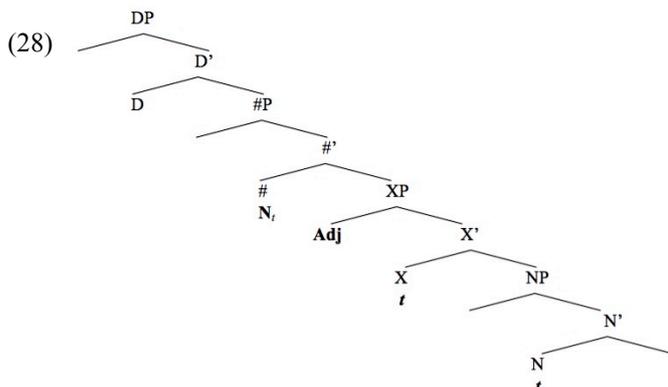
4.2.1 No Movement Grammatical word orders without movement and positions of each DP-internal element are enumerated in (26). They can be obtained by following the positions I postulated in Section 3: adjectives are in Spec of a functional projection XP, numerals are in Spec of #P, and demonstratives are in Spec of DP.

- (26) a. (25a) Adj + N: [DP D [#P # [XP [AdjP Adj] X [NP N]]]]
 b. (25c) Dem + N: [DP Dem D [#P # [XP X [NP N]]]]
 c. (25e) Num + N: [DP D [#P Num # [XP X [NP N]]]]
 d. (25f) Dem+Adj+N: [DP Dem D [#P # [XP [AdjP Adj] X [NP N]]]]
 e. (25h) Dem+Num+N: [DP Dem D [#P Num # [XP X [NP N]]]]
 f. (25i) Num+Adj+N: [DP D [#P Num # [XP [AdjP Adj] X [NP N]]]]

4.2.2 N-Movement to #-Head Next, the following grammatical word orders can be analyzed by moving N-head to #-head.

- (27) a. (25b) N + Adj b. (25g) Dem+N+Adj c. (25j) Num+N+Adj

I will demonstrate how (27a) N+Adj is derived. (28) shows that (27a) is derived from (26a) Adj+N by the movement of N-head to #-head.



Similarly, moving N-head to #-head makes (27b) Dem+N+Adj derive from (26d) Dem+Adj+N, and (26f) Num+Adj+N derives (27c) Num+N+Adj by the N-movement targeting #-head. The grammatical word order (25d) N+Dem will be discussed in Section 5 because a new condition must be introduced in order to explain its grammaticality.

4.2.3 Motivation of N-movement to #-head According to Watanabe (2006), N-movement to #-head is motivated by feature-checking. Watanabe proposes that [\pm number], which distinguishes count nouns from mass nouns⁸, and [\pm singular], which determines whether nouns are singular or plural, are specified for a noun. Also, these features are checked at #-head. Adopting Watanabe's analysis, I assume that the feature-checking motivates the movement of N-head to #-head. Even if it seems that there is no N-movement to #-head, the movement must occur at LF⁹.

4.3 Ungrammatical Word Order This subsection explains the ungrammatical word orders in Tagalog. Word orders which violate any of the restrictions in (29) are ungrammatical.

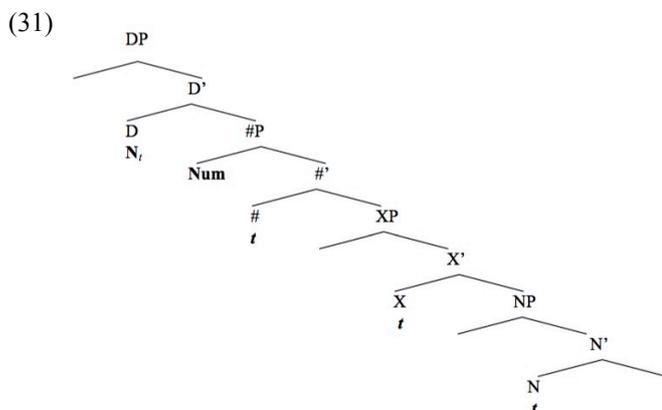
- (29) a. *N>Num b. *Adj>Dem c. *Num>Dem d. *N+○+○ e. *Adj>Num

Thus, I will give syntactic explanations on these restrictions.

4.3.1 *N>Num I will enumerate the sequences which are judged as ungrammatical due to the violation of *N>Num below. (*Adj+N+Num: (7d) is one of them, however, I will discuss that in Section 5.)

- (30) a. *N+Num: (3b) b. *Dem+N+Num: (6b)

The two (30) examples have in common that a noun comes before a numeral. It implies that the noun cannot move above #-head. The movement of N-head targeting D-head is prohibited in Tagalog. I show it in the tree diagram based on (30a) as one example.



The prohibition of the N-movement to D-head is connected to the feature-checking. As I explained in Section 4.2.3, [\pm number] and [\pm singular], which are specified for a noun, are checked by #-head, and this feature-checking motivates N-movement to #-head. In other words, the feature-checking is completed at the moment when N-head reaches #-head. Accordingly, moving N-head from #-head to D-head becomes unnecessary after the checking. Hence, *N>Num indicates that the prohibition of an unmotivated movement after the feature-checking of N at #-head.

4.3.2 *Adj>Dem and *Num>Dem Ungrammatical orders caused by the violation of *Adj>Dem and *Num>Dem are listed below.

- (32) a. *Adj+Dem+N: (5c) b. *Adj+N+Dem: (5d)
 c. *Num+Dem+N: (6c) d. *Num+N+Dem: (6d)

The examples in (32) all have one or more element(s) before the demonstrative pronoun. According to the structure [_{DP} D [_{#P} # [_{XP} X [_{NP} N]]]], which I have posited in Section 3, there is no position for the preceding

⁸[+number] means that nouns are countable whereas [-number] means that nouns are not countable.

⁹The distinction whether the N-movement to #-head occurs at PF or at LF is left open for future research.

elements within DP to appear above the demonstrative pronoun because demonstratives are realized in Spec of DP. Thus, we can state that *Adj>Dem and *Num>Dem are due to the absence of available position above Spec of DP, which demonstrative pronouns occupy.

4.3.3 *N+○+○ Finally, I will explain the restriction *N+○+○. As shown in (33), the prohibition of placing a noun at the initial position of a noun phrase can be seen regardless of the category or the order of the elements following the noun.

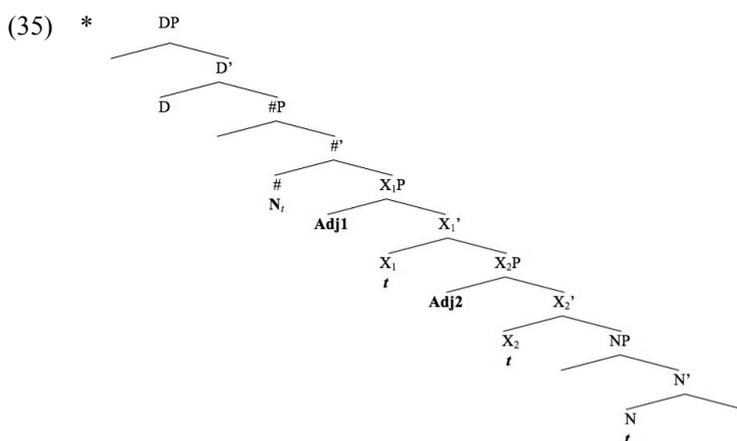
- (33) a. *N+Dem+Adj: (4a) b. *N+Adj+Dem: (4b) c. *N+Dem+Num:(4c)
 d. *N+Num+Dem: (4d) e. *N+Num+Adj: (4e) f. *N+Adj+Num: (4f)

One may think that the restriction *N+○+○ is not necessary because (33) can be analyzed by *N>Num, *Adj>Dem, and *Num>Dem, which I explained in Section 4.3.1 and 4.3.2. In other words, the ungrammaticality of (33c), (33d), (33e) and (33f) can be explained by the syntactic restriction corresponding to *N>Num, where N-movement to D-head is banned by the completed feature-checking at #-head. Also, the other syntactic restriction corresponding to *Adj>Dem and *Num>Dem, where there is no position for any element to appear above Spec of DP, explains (33a), (33b), (33c) and (33d).

However, looking at the data of noun-modification of two different adjectives, we can say that there are two ungrammatical word orders which cannot be explained by these two syntactic restrictions. Examples of the noun-modification of two different adjectives are shown below¹⁰.

- (34) a. Adj1+Adj2+N
 bago-ng mabait na kaklase
 new-LNK kind LNK classmate
 c. Adj2+Adj1+N
 mabait na bago-ng kaklase
 kind LNK new-LNK classmate
 e. *N+Adj1+Adj2
 *kaklase-ng bago-ng mabait
 classmate-LNK new-LNK kind
 ‘new kind classmate’
 b. Adj1+N+Adj2
 bago-ng kaklase-ng mabait
 new-LNK classmate-LNK kind
 d. Adj2+N+Adj1
 mabait na kaklase-ng bago
 kind LNK classmate-LNK new
 f. *N+Adj2+Adj1
 *kaklase-ng mabait na bago
 classmate-LNK kind LNK new

(34e) and (34f) are ungrammatical even though these orders do not violate the two syntactic restrictions above. I take (34e) as one example and draw the tree diagram below.



In (35), N-head moves to #-head stopping by X₂-head and X₁-head. It is not the case that N-head rises to D-head after the feature-checking at #-head, and there is no element which does not have a position to occupy. Therefore, an additional syntactic restriction which explains examples such as (34e) and (34f), needs to be examined. It can be considered that moving N-head over two phonologically overt elements is impossible. Hence, the prohibition of the N-movement beyond two phonologically overt elements leads to

¹⁰I have assumed that the two adjectives *bago* meaning new and *mabait* meaning kind from (34) belong to the same categories of adjectives, namely adjectives indicating quality. Therefore, the serialization explained in Section 3.1 cannot be seen between the two adjectives.

Brugé hypothesizes that demonstrative pronouns appear in Spec of DP in the pre-nominal specification as in (38a), whereas they appear at the position of base-generation in the post-nominal specification as in (38b). Spanish demonstratives are base-generated in Spec of a functional projection which immediately dominates NP and which is immediately dominated by other functional projections containing adjectival phrases as shown in (39). (Note: in (39), FP is a functional projection whose Spec is the base-position of demonstratives, and XP is other functional projections whose Specs are occupied by adjectival phrases.)

(39) [DP D ...¹³[XP Adj X [FP Dem F [NP N]]]]

In Brugé's hypothesis, [+referential] and [+deictic] are specified for demonstrative pronouns, and feature-checking of [+referential] occurs at Spec of DP through Spec-head agreement. Hence, the feature-checking motivates the movement of demonstrative pronouns, which are base-generated in Spec of the functional projection between NP and other functional projections whose Specs are occupied by adjectival phrases. Since Spanish has an option for the surface position of demonstrative pronouns, the movement to Spec of DP is optional before Spell-out at PF. However, it is obligatory after Spell-out at LF.

This generalization in Spanish is extended to other languages. In languages similar to Spanish in which demonstratives can appear either pre-nominally or post-nominally, there is an option at PF of whether demonstratives move to Spec of DP or not. If they do not move at PF, the movement to Spec of DP is obligatory at LF. In languages where demonstratives must appear pre-nominally, they obligatorily move to Spec of DP at PF. To the contrary, the movement of demonstratives to Spec of DP has to occur at LF in languages of which demonstratives are realized post-nominally.

I adopt Brugé's proposal for Tagalog. Tagalog demonstratives come either before or after a noun when a demonstrative pronoun alone specifies a noun. Therefore, it is considered that the movement of demonstratives occurs optionally at PF, and it is obligatory at LF. On the other hand, in the noun-modification/specification of more than one element including demonstrative pronouns, demonstratives must precede other elements. Accordingly, similar to the pattern of languages in which demonstratives must appear pre-nominally, demonstrative pronouns obligatorily move to Spec of DP at PF when there are other elements modifying a noun¹⁴.

The base-position of demonstratives is confirmed by looking at the position of the locative reinforcer *ito* 'here', which can optionally co-occur with demonstrative pronouns and makes a constituent with them. In the case where a demonstrative pronoun is realized only pre-nominally, the locative remains in the position where the demonstrative pronoun is base-generated. Thus, the position of the locative indicates the base-position of the demonstrative pronoun. (40) is the example including the locative, which determines the base-position of the demonstrative pronoun.

(40) a. Dem+Adj+N+Locative				b. Dem+N+Locative+Complement			
ito-ng	<u>maganda</u> -ng	libro-ng	ito	Ito-ng	libro-ng	ito	<u>tungkol sa kasaysayan</u>
this-LNK	nice-LNK	book-LNK	here	this-LNK	book-LNK	here	on DAT history
'this nice book here'				'this book here on history'			

The locative appears after the adjective such as in (40a) and before the complement of N as in (40b). Since the position of the locative points the base-position of demonstratives, demonstratives are base-generated between the position of the adjective and the complement of N. The adjective occupies Spec of XP in my assumption, and the complement of N is structurally dominated by NP. Also, demonstratives are considered to appear in Spec as I explained in Section 3.2. Therefore, as shown in (41), demonstratives originally locate in Spec of a functional projection which immediately dominates NP and which is immediately dominated by other functional projections including adjectival phrases in their Specs.

(41) [DP D [#P # [XP AdjP X [FP Dem F [NP N]]]]]

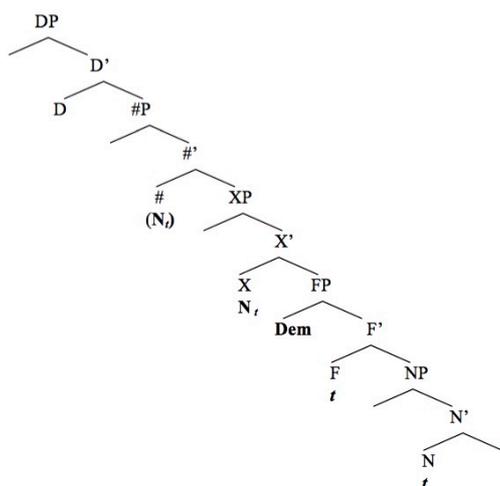
Similar to Spanish, demonstrative pronouns appear to be base-generated in Spec of the functional projection, which is shown as FP. Under this assumption, N+Dem can be explained by considering that N-head rises to X-head or #-head, and demonstratives remain in the position of base-generation at PF. Then, at LF, the demonstratives rise to Spec of DP as seen in (42)¹⁵.

¹³This symbol is the indication where other functional projections exist between XP and DP.

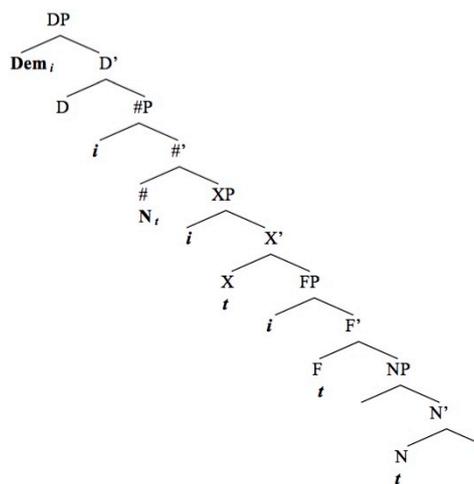
¹⁴At this point, I am unable to provide an appropriate reason as it requires further investigation.

¹⁵In the case where N-head rises to X-head at PF, it obligatorily moves to #-head at LF for the feature-checking. By contrast, the case where N-movement to #-head occurs at PF, no further movements are necessary at LF.

(42) a. at PF



b. at LF



6 Conclusion

I have claimed that the postulation of DP-internal structure is necessary in order to explain Tagalog word order, which is complex enough to clarify the following five restrictions: (i) *N>Num; (ii)*Adj>Dem; (iii)*Num>Dem; (iv)*N+○+○; (v)*Adj>Num. Then, based on the postulated Tagalog DP-internal structure [DP Dem D [#P Num # [XP Adj X [NP N]]]], I have provided an analysis on grammatical and ungrammatical word orders using the N-movement proposed by Cinque (1994). Word orders under the following two conditions are grammatical: (i) No movements are involved; (ii) N-head moves to #-head due to checking [\pm number] and [\pm singular]. On the other hand, ungrammatical word orders are attributed to the following three conditions: (i) N-head is prohibited to move targeting D-head after completing the feature-checking; (ii) There is no position within DP for nouns, adjectives, and numerals to occupy above Spec of DP in which demonstrative pronouns are realized; (iii) N-head is prohibited to move over two phonologically overt elements. Also, I discussed *Adj>Num as a case of which the N-movement analysis cannot explain, and postulating the prohibition against raising adjectival phrases beyond phonologically overt numerals would be necessary. In addition, the sequence N+Dem can be explained by assuming a base-position of demonstrative pronouns and the possibility to appear at the base-position in the case of noun-specification of a demonstrative pronoun alone.

As further research, I would like to observe the ordering of DP-internal elements in the case where the noun is plural. In Tagalog, the plural marker *mga* is added when one wants to clearly indicate the plurality of nouns (Yamashita 2010). In addition to the restrictions when the noun is singular, the position of the plural marker also affects the grammaticality of Tagalog noun phrases. Moreover, I would like to examine the restrictions on word order when a noun is modified by three elements, an adjective, a demonstrative pronoun, and a numeral.

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