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Non-Movement Analysis of  
Adjective Ordering**

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**Indirect Modification in Situ:  
Non-Movement Analysis of Adjective Ordering**

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**Abstract**

Based on Cinque (2010), I propose that some Japanese adjectives have two forms to distinguish direct and indirect modification interpretation. Indirect modification adjectives assume a clausal structure, with *pro* in the IP subject position. This *pro* is coindexed with the XP which includes a head noun (and if any, direct modification adjectives). Since the derivation is completed when this clause of indirect modification adjectives merges with a projection of a head noun, further movements are avoided. As a result, indirect modification adjectives remain in situ.

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1. *A systematic contrast about the adjective ordering and its interpretation*

Adjective ordering restrictions have been discussed broadly in literature (Sproat and Shih, 1991; Cinque, 1994, 1999, 2010; Bosque & Piccolo, 1996; Laenzlinger, 2000, among others), and it is assumed that the respective position of adjectives, appearing as satellites of the noun, is certainly not arbitrary (Laenzlinger, 2000:59). However, some important problems still remain. One example would be how to derive the cross-linguistic differences of the adjective ordering with the unified base structure.

1.1. *Direct and Indirect modification adjectives in Cinque (2010)*

The confused phenomena about the cross-linguistic variety of adjective ordering have been the issue of a number of arguments. The distinction of direct and indirect (reduced relative clause) modification (Cinque, 2010) has brought out a clear contrast between Germanic and Romance languages concerning the asymmetric distribution of the adjectives. Cinque (2010) distinguishes two structural sources for adnominal adjectives with their interpretative properties. The rough summary in English is below in (1).

(1) Indirect (reduced RC) modification	Direct modification
[Det. [stage-level (or individual-level)	[individual-level NP]]
[Det. [restrictive NP]]	[non-restrictive
[Det. [intersective	[non-intersective NP]]
[Det. [deictic	[generic NP]]
[Det. [literal interpretation	[possible idiomatic NP]]
	interpretation
	(RC = relative clause, Det = determiner, NP = noun phrase)
	(Cinque, 2010: 27)

With these differences Cinque (2010) summarizes the asymmetry of adnominal adjective orderings as follows.

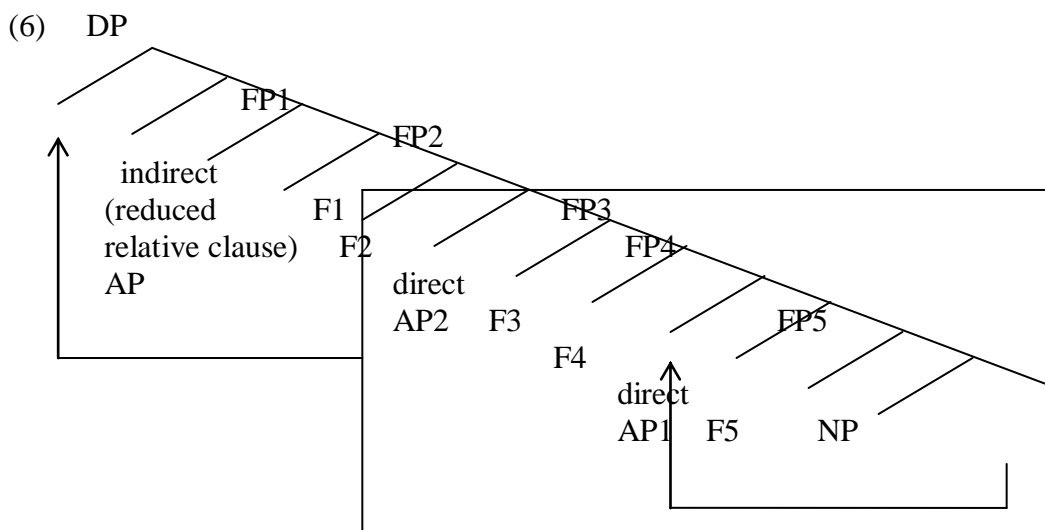
- (2) English (Germanic)  
 indirect modification > direct modification > Noun > [indirect modification]
- (3) Italian (Romance)  
 [direct modification] > Noun > direct modification > indirect modification  
 (Cinque, 2010: 22)

- (4) The most probable main cause of his death (is this)
- (5) *La causa prima più probabile della sua morte (è questa)*  
 the cause main most probable of his death (is this)

In (2) and (3), postnominal adjectives in Romance characteristically enter an order that is the mirror image of the order of prenominal adjectives in

Germanic. Furthermore, adjectives can appear in the marginal positions (postnominally in Germanic, and prenominally in Romance).

If we assume, following Sproat and Shih (1990) or Kayne (1994), that at a more abstract level, there will be one basic order (or structure) of adjectives that is available for all languages, we have to suppose some movements to derive each surface order. Cinque (2010) proposes a leftward, bottom-to-top, phrasal movement (movement of phrases containing the NP) in Romance, instead of his own N-movement (Cinque, 1990a, 1994).



(Cinque, 2010: 37)

This phrasal movement explains the observation that direct modification adjectives are always closer to the noun than to the indirect one. Moreover direct modification adjectives are rigidly ordered, while indirect ones are not, in the sense of Sproat & Shih (1990).

So far Cinque's phrasal movement describes correctly the adjective ordering differences between Germanic and Romance languages<sup>1</sup>.

### 1.2. Some remaining problems of adjective ordering

It is quite conceivable that the mirror-image ordering of adjectives between Germanic and Romance languages is captured by appropriate phrasal

<sup>1</sup> The idea that there are two kinds of adjectives and the only one of them has a movement to get an appropriate Romance adjective ordering is also shared by Bosque & Picallo (1996). They propose that relational adjectives rise, step by step, to AgrP-Spec position forming an adjective cluster. With Noun raising followed afterwards they derive an appropriate adjective ordering. On the other hand, quality adjectives remain in situ along the derivation. With this analysis, they derive the asymmetric adjective ordering between English and Spanish (i).

(i) a. *una comedia musical americana divertida*

a comedy musical American amusing

b. an amusing American musical comedy (Bosque & Picallo, 1996: 349)

movements described in Cinque (2010). However, we have some problems to solve.

First, sporadic mention has been made in Cinque (2010) about what is the trigger of this phrasal movement. In general, it is widely assumed that the trigger of a movement to derive adjective ordering is the phi-features (gender and number) (Bosque & Picallo 1996; Laenzlinger 2000; Demonte 2008, among others). However, Cinque (2010) does not mention exactly what kind of agreement feature triggers his phrasal movement.

Given that the base position of adjective is universal across languages, and the word order difference is derived by a series of movements, then Japanese should reflect the most primitive hierarchy of the adjective ordering. That is because Japanese totally lacks any agreement of Case, or of the phi-features, and the language is strictly head final. For the present, we suppose that in Japanese there is no movement triggered by the agreement feature, and each adjective is base-generated in the prenominal, designated syntactic position.

Second, we have to explain why indirect modification adjectives remain in situ. In Romance languages the indirect modification adjectives are exempted from the phrasal movement. If that were so, we have to examine their syntactic properties in more detail. At any rate, besides the interpretative differences, the syntactic structures of direct and indirect modification adjectives are completely different.

In this article, based on some data of Japanese adjectives, I propose that the indirect modification adjectives in Japanese has a clausal adnominal modification structure. This structure is similar to English (reduced) relative clause, but it has no movement. I also propose that this structure can be applied to other languages like English or Spanish.

## *2. Indirect modification adjectives in situ: A case of Japanese*

### *2.1. Japanese adjective modification structure*

According to its strict head-final word order, Japanese can be contrasted with English and Romance languages. In general English adjectives precede their head nouns, but they can appear postnominally with indirect modification interpretation (7b). On the other hand, in Spanish (or Romance languages), the unmarked position of adjectives is postnominal, but when they appear prenominally, the interpretation must be direct modification (8b).

Now, Japanese is the third type of language. That is to say, all the nominal modifiers in Japanese (adjectives, adjectival nouns or relative clauses) must precede its head noun in attributive use. As a result, Japanese adjectives cannot draw a sharp line between direct and indirect modification with their syntactic positions. For example, an English adjective *old* has various meanings (Taylor, 1992). In Spanish, these meanings can be differentiated with their positions, prenominally (8b) and postnominally (8a). In Japanese, the different meanings are distinguished by an prenominal adjective *hurui* (9a), or by a relative clause (9b) or by a different lexical item (9c).



- (7) English: a. a navigable river vs. b. a river navigable
- (8) Spanish: a. *un amigo viejo* vs. b. *un viejo amigo*  
a friend old an old friend  
‘an old friend’ ‘a friend of long standing’
- (9) Japanese: a. *huru-i yuujin*  
old friend ‘a friend of long standing’  
b. *toshi-o totta yuujin*  
old-aged friend ‘an old-aged friend’  
c. *watashi-no mae-no kareshi*  
my old boyfriend ‘my old boyfriend’

What made it even complicated is that Japanese does not have overt relative pronouns. Therefore the surface structure of relative clause and that of adjective modification can be exactly the same.

- (10) a. [NP [AP *aka-i*] hon] vs. b. [NP [IP *pro aka-i*] hon]  
red book red book  
‘a red book’ ‘a book which is red’

All these properties considered, Japanese adjectives are themselves ambiguous between direct and indirect modification at the surface structure. Their surface syntactic positions cannot tell us which interpretation adjectives have.

## 2.2. Japanese indirect modification adjectives with *-no*

Although Japanese adjectives are basically ambiguous between direct and indirect modification, some adjectives (color, distance and shape) can have alternate forms to distinguish their interpretations morphologically. In modern Japanese, attributive adjectives end with *-i*, but some have an alternate form ended with *-no*. This form of adjective with *-no* assumes indirect modification interpretation, while the normal adjective form is ambiguous between direct and indirect modification interpretation (Kishita, 2006; Okami, 2012)<sup>1</sup>.

- (11) a. *aka-i hon* vs. b. *aka-no hon*  
red book red-*no* book  
‘a red book’ or ‘a book which is red’  
‘a book which is red’
- b. *too-i(chika-i) ie* vs. b. *tooku-no(chikaku-no) ie*  
distant(near) house distant-*no*(near-*no*) house  
‘a distant (near) house’ or ‘a house which is distant(near)’  
‘a house which is distant(near)’

<sup>1</sup> Again, I have to emphasize that not all adjectives in Japanese have this alternation. Other adjectives that have no alternate forms have to distinguish the meaning by the context in which they occur, but not with the *-no* form.

In the next section, I will present some data showing that the adjective with *-no* is a realization of indirect modification in Japanese.

### 2.2.1. Interpretative differences between adjectives with and without *-no*

The first evidence that *-no* represents indirect modification comes from its interpretation. As is presented below the two adnominal adjective forms are at times interchangeable (12a), other times not (12b).

- (12) a. *aka-i/aka-no hana wo katt-a*  
 red/red-*no* flower-ACC bought 'I bought a red flower'  
 b. *aka-i/??aka-no taiyou ga nobor-u*  
 red/red-*no* sun-NOM rises 'The red sun is rising'

As we have seen in (1), the indirect modification expresses the restrictive meaning. Since the redness of the sun is its typical or essential property, the 'red' in 'the red sun' does not have a restrictive meaning. Another examples are 'white' in 'white snow', 'green' in 'green grass', or 'round' in 'a round ball'. Therefore *-no* does not go together in the non-restrictive, explanatory meaning in (12b).

Similarly, in (13), 'red string' and 'black rumor' are idiomatic expressions in Japanese.

- (13) a. *Taro-to Hanako-wa aka-i/\*aka-no ito de musub-are-te iru.*  
 Taro and Hanako-TOP red/\*red-*no* string-with bound together  
 'Taro and Hanako are destined to be together'  
 b. *Kare-ni-wa kuro-i/\*kuro-no uwasa-ga aru.*  
 He-to-TOP black/\*black-*no* rumor is  
 'There are dark rumors about him'

If the adnominal adjective form with *-no* assumes the literal interpretation of the indirect modification, it cannot express the idiomatic expressions, as correctly observed by Cinque (2010). This is because the indirect modification adjectives behave as a predicate of the relative clause structure (Cinque, 2010: 2). In the predication relation, they are used, not in a relative sense that is dependent on the head noun, but in an absolute sense (Taylor, 1992: 1).

### 2.2.2. The syntactic status of *-no*

If the adjective with *-no* functions as indirect modification, what syntactic status does it have? First, it should be noted that *-no* in Japanese is one of the most controversial problems, and its distribution is very broad<sup>1</sup>. In Okami

<sup>1</sup> For example, besides the genitive case marker, the *-no* form can be a pronoun, appositive marker or complementizer of cleft sentence, etc.

(2012), I argued that in the case of an adjective with *-no*, *-no* is a copular verb, and functions as a predicate (copular verb) of a relative clause.

Traditionally, Japanese has two types of copular verbs (*da* and *nari*), and they have their own conjugation paradigms. In modern Japanese *nari* is seldom used as a predicate of a sentence, except some stereotyped expressions (e.g. *Honjitsu-wa seiten nari* ‘Today is a fine day’). Despite its classical nature, the conjugational forms of *nari* are still survived in modern Japanese<sup>1</sup>. The attributive form of the verb *nari* is a dependent form of *-no*, and it is obligatorily connected to other forms. Because of this morphological dependency, and its homonymity with other functions of *-no*, we sometimes overlook the verbal status of *-no*. However, as shown in (14), in modern Japanese, the attributive form of the copular verb *nari* can be manifested in the appositive constructions.

- (14) *Kochira-ga otouto-no Hiroshi desu*  
 this -NOM brother-*no* Hiroshi is  
 ‘This is my brother, Hiroshi’

In (14), *-no* corresponds to an attributive form of the copular verb *nari*.

If *-no* is a realization of the copular verb, and the adjective with *-no* is a realization of indirect modification in Japanese, we have to clarify the syntactic structure of this form. In the following section, we present a clausal structure for the indirect modification adjective in Japanese. From a typological point of view, English relative clauses and Japanese indirect modification clauses are included in a more general category, a noun modifying clause in a broad sense.

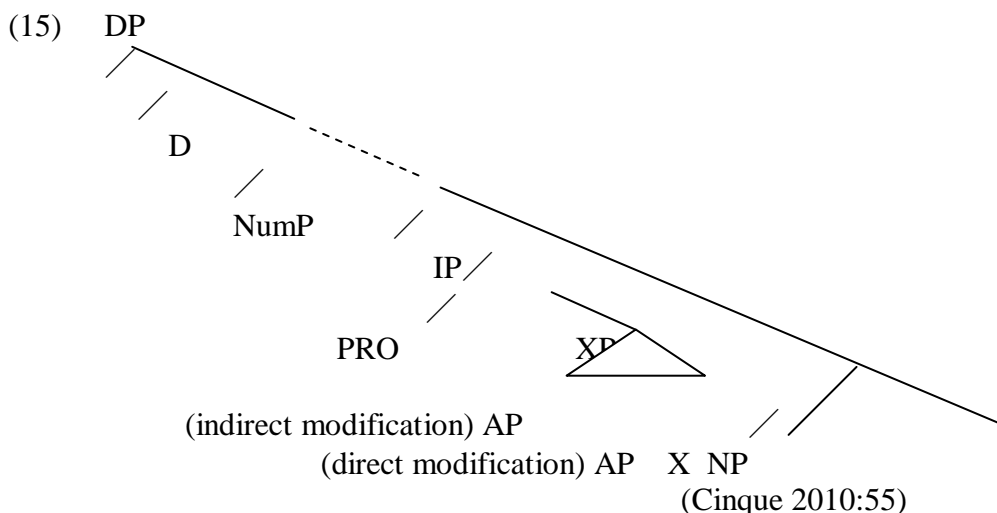
### 2.2.3. The syntactic structure of the indirect modification with *-no*

The clearest difference between indirect and direct modification adjectives is that the former assumes a kind of clausal structure. It means that they have more structure than plain adjectives, and they belong to clausal modifiers. In contrast, direct modification adjectives are merged as a plain form in specifier positions of dedicated functional projections above NP (Cinque, 2010: 64).

To determine the structure of Japanese indirect modifications, I start from the structure in Cinque (2010). Following Sproat & Shih (1991) he proposes that indirect modification adjectives originate in the predication position of a reduced relative clause with PRO (Cinque, 2010: 54).

<sup>1</sup> The inflectional paradigms of the two copular verbs in Japanese is as follows:

full form	inference	suspension	end of a sentence	attributive	conditional
<i>da</i>	<i>darou</i>	<i>datta</i>	<i>da</i>		
<i>nari</i>				<i>-na, -no</i>	<i>-nara</i>

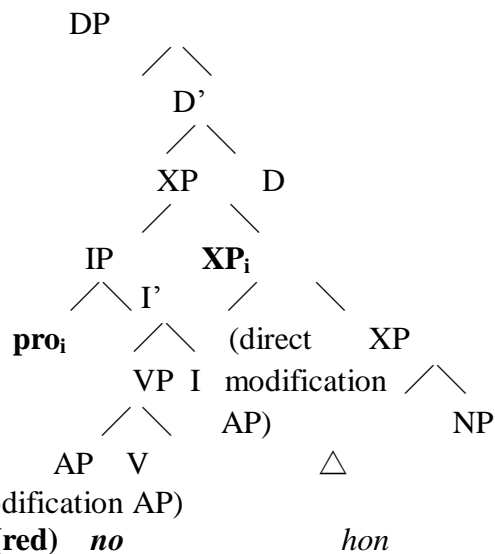


Based on (15), I present the following IP adnominal modification structure for indirect modifications with *-no* in Japanese. Because Japanese does not have any relative pronouns, the projection of these clausal modifiers should be IP, not CP. This structure is rather anomalous, compared to prototypical relative clauses which always include a series of movements and their traces.

(16) a. *aka-no hon*

red-*no* book 'a red book'

b.



In (16), the subject of this clause is *pro*, which is coindexed with the projection of the head noun. Furthermore *-no* appears in the predicate position as a copular verb, and the adjective *aka-* functions as the predicative adjective. Hence no movement is involved in this structure.

A further point that needs to be clarified is the status of *pro* in the subject position in IP. Murasugi (2000), following Perlmutter (1972), assumes that in Japanese, empty pronouns can appear everywhere if they are in the argument

position. This *pro* is base generated in the Specifier of IP, because the Japanese noun modifying clause does not have to include any movement. Through the co-indexed relation with XP (a projection of a head noun), this XP is practically interpreted as the subject of the clause.

With all these peculiarities<sup>1</sup>, it can be said that Japanese does not have a relative clause comparable to that of English. In other words, the indirect modification clause in Japanese is different from a English relative clause which contains obligatory movement and assumes D-CP structure (Kayne, 1994).

However, from a typological point of view, both forms are included in a more general category, a noun modifying clause. That is to say, all that the syntax specifies is that a head noun is accompanied by a modifying clause (Comrie 1996:1081).

- (17) a. Noun-modifying clauses attached to a head noun  
-Asian type  
 b. Noun-modifying clauses with syntactic constraints on what constituents  
 can be relativized -European type

As in (17), both English relative clauses (17b) and Japanese IP adnominal modification clause (17a) can be considered as subtypes of a noun-modifying clauses. Now, based on (16), let's move on to English indirect modification adjectives.

#### 2.2.4. *The structure of English adnominal modification adjectives*

If the Japanese indirect modification with *-no* is analyzed as a noun-modifying clause with the subject *pro*, it would be possible to apply this structure to other variations of indirect modifications.

In (18b), I propose the structure of indirect modification adjectives in English. In English, if the direct and indirect modification adjectives appear preminally (this co-occurrence is in fact possible), they are strictly ordered (18a). The leftmost corresponds systematically to the indirect modification with the reduced relative clause reading, and the direct modification adjective is always next to the head noun (Cinque, 2010: 19).

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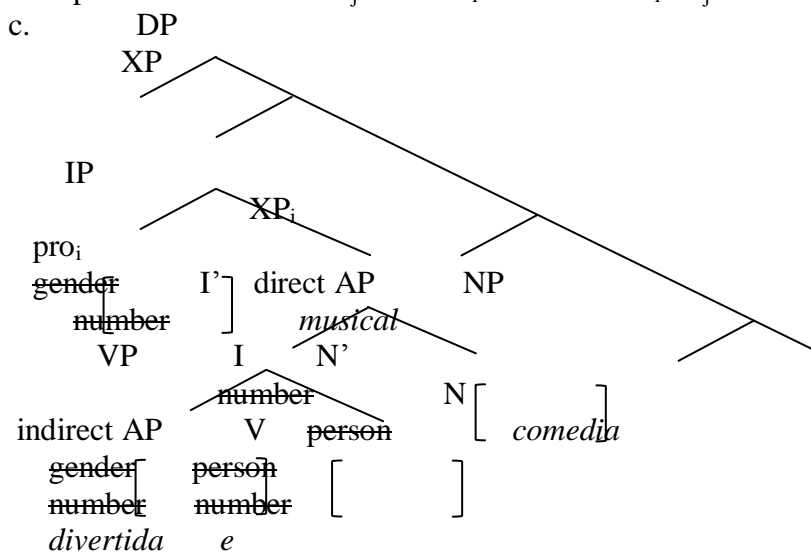
<sup>1</sup> Comrie (1996:1977) presents some peculiarities of Japanese relative clause; (i) it does not have any gap, (ii) there is no syntactic restriction between head noun and a covert coreferential noun in the subordinate clause, (iii) it allows zero anaphor, and (iv) there is no overt reference to the head noun within the relative clause. Taking into all these properties, Comrie concludes that Japanese has a single construction type (noun modifying clause) which combines a head noun and a preceding subordinate clause (Comrie, 1996: 1979).



In (19b), direct modification adjectives (C-adjectives and Th-adjectives) and the head noun has raised skipping indirect modification adjective (Q-adjective). Here we have a natural question: why do indirect modification adjectives not participate in this movement of feature checking in Spanish? Assuming Giusti (1992), they propose that quality adjectives are dominated by one or more functional projections because they can have degree modifiers. That is, quality adjectives (in an indirect modification sense) never constitute bare lexical projections, unlike relational (direct modification) adjectives. This observation is consistent with our claim that indirect modification adjectives have an IP structure. With the clausal status, the structure can afford to pile up some functional projections to host degree modifiers.

Although superficially the indirect modification adjective appears as bare adjective, it has the structure of IP with *pro* and an empty copular verb. This clausal status prevents it from the movement to a higher position because the agreement of the phi-feature of the adjective is all completed within an IP clause.

- (20) a. basic order: Indirect > Direct > N  
 b. with phrasal movement:  $N_j > Direct_i > Indirect > t_i > t_j$



Here I assume, as in English, two empty categories: *pro* and empty copular verb *e*. In Spanish, adjectives have gender and number features, and they must agree with the head noun. In (20c), agreement features of the indirect modification adjective are all saturated by agreement with *pro* via coindexed relation with a projection of a head noun (XP). At the same time, the agreement between the empty copular verb *e* and the head of IP is completed, like an ordinary clausal structure. Put differently, at this point, the derivation of the indirect modification adjective is finished. All the features of adjectives are valued and deleted by the phi-set of IP subject *pro*. After the phrasal movement of the projection of the head noun with direct modification adjective, the

surface order is (20b). Consequently, once the derivation is finished, the label of this IP structure is projected as XP, not IP. It is a result of (21), the Labelling Principle of Escibano (2004).

(21) Labelling Principle (Escibano, 2004: 11)

The participant that remains unsaturated after Merge projects its label.

In Japanese, with no movements triggered by phi-feature, the adjective order reflects directly the domain of base-generated prenominal modification proposed by Cinque (2010:63), as shown in (22b).

(22) a. finite restrictive RC > participial AP reduced RCs > bare AP reduced RCs > direct modification APs > N

b. [[*Taro-ga mitsuke-ta*] [*koware-ta*][*aka-no*][*tiisa-i*] *saihu*]

Taro-NOM found broken red small purse

‘A small red broken purse that Taro found’

The main point of this section was as follows: if the trigger of the phrasal movement of adjectives is agreement with the phi-features, the indirect modification adjectives are exempted from this movement, because all of the phi-features are saturated within a domain of an IP adnominal modifying clause. With this clausal status the indirect modification adjective does not need further movement, and remains in situ. Within that clause, the indirect modification adjective evokes a predication relation with the IP subject *pro*.

#### 4. Conclusion

In this paper we discussed the adjective ordering contrast between English, Japanese and Romance languages. We first showed that a distinction between direct and indirect modification in the sense of Cinque (2010) is a clue to the understanding of adjective ordering, but some questions still remain. Then we presented that based on Japanese data, indirect modification adjectives have a clausal structure, with *pro* and (overt or covert) copular verb. This clause is like a relative clause in English, but it does not involve relative pronouns nor movements. Typologically, it is a kind of the noun modifying clauses which covers the relative clause in English and the adnominal modification clause in Japanese.

With regard to the absence of movement in the indirect modification adjective, we have proposed that because of its clausal nature, agreement of phi-features between indirect modification adjectives and small *pro* is completed. As a result, once they are derived, they do not have the phrasal movement to a higher positions, and remain in situ. This conclusion suggests that two seemingly equivalent adjectives can have entirely different syntactic properties. In other words, it is quite possible to propose that a superficially bare element can have a covert structure, whose existence is attested by some



syntactic phenomena. If this conclusion is correct, further research for the clausal status of indirect modification adjective is well worth consideration.

### Bibliography

- Bosque, I. & C. Picallo (1996). 'Postnominal adjectives in Spanish DPs.' *Journal of Linguistics* 32: 349-385.
- Cinque, G. (1990a). 'Agreement and head-to-head movement in the Romance NP.' Paper presented at the 20<sup>th</sup> *Linguistic Symposium on Romance Languages*. University of Ottawa.
- Cinque, G. (1994). 'On the evidence for partial N movement in the Romance DP.' In: G. Cinque, J. Koster, J.-Y. Pollock, L. Rizzi & R. Zanuttini (eds.), *Paths Towards Universal Grammar: Studies in Honor of Richards S. Kayne*, 85-110. Washington DC: Georgetown University Press.
- Cinque, G. (2010). *The Syntax of Adjectives: A Comparative Study*. Cambridge: MIT Press.
- Comrie, B. (1996). 'The unity of noun-modifying clauses in Asian languages.' In: *Pan-Asiatic Linguistics: Proceedings of the Fourth International Symposium on Languages and Linguistics, January 8-10, 1996*, 1077-1088. Salaya, Thailand: Institute of Language and Culture for Rural Development, Mahidol University at Salaya.
- Demonte, V. (1999a). 'El adjetivo. Clases y usos. La posición del adjetivo en el sintagma nominal.' In: I. Bosque & V. Demonte (eds.), *Gramática Descriptiva de la Lengua Española*. Madrid: Espasa Calpe
- Demonte, V. (2008). 'Meaning-form correlations and adjective position in Spanish.' In: L. McNally & C. Kennedy (eds.), *Adjectives and Adverbs: Syntax, Semantics, and Discourse*, 71-100. Oxford: Oxford University Press.
- Kayne, R. S. (1994). *The antisymmetry of syntax*, Cambridge: MIT Press.
- Kishita, R. (2006). 'Iro-wo arawasu meishi-no rentai syusyoku youhou.' *Ootemae daigaku jinbun kagaku ronsyu*. Vol.6, pp.29-39.
- Laenzlinger, C. (2000). 'French adjective ordering: Perspectives on NP-internal movement types.' *Generative Grammar in Geneva* 1:55-104
- Murasugi, K. (2000). 'An antisymmetry analysis of Japanese relative clauses.' In: A. Alexiadou, P. Law, A. Meinunger, & C. Wilder (eds.), *The syntax of relative clauses*, 167-188. Amsterdam: John Benjamins.
- Okami, Y. (2012). 'Two types of modification and the adnominal modification in Japanese.' In: J. Błaszczak, B. Rozwadowska & W. Witkowski (eds.), *Current Issues in Generative Linguistics: Syntax, Semantics and Phonology*. Wrocław: University of Wrocław
- Sproat R. & C. Shih (1990). 'The cross-linguistic distribution of adjectival ordering restrictions'. In: C. Georgopoulos & R. Ishihara (eds.), *Interdisciplinary Approaches to Language: Essays in Honor of S-Y. Kuroda*, 565-593. Dordrecht: Kluwer.
- Taylor, J.R. (1992). 'Old problems: Adjectives in Cognitive Grammar.' *Cognitive Linguistics* 3-1: 24-271