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***A Cartographic Approach to Japanese Relative  
Clauses***

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## List of Abbreviations

A	Adjective	MOD	Modality
ACC	Accusative case	N	Noun
ART	Article	NEG	Negative
Cl	Classifier	NOM	Nominative Phrase
COMP	Complementizer	NP	Noun Phrase
COP	Copula	NPAST	Non-past tense
CP	Complementizer Phrase	NRRC	Nonrestrictive Relative Clause
DAT	Dative case	Num	Numeral
Dem	Demonstrative	PAST	Past tense
DP	Determiner Phrase	POL	Polite
FocP	Focus Phrase	PROG	Progressive aspect
GEN	Genitive case	PSV	Passive voice
HERC	Head-External Relative Clause	Q	Quantifier/(Question under interrogative <i>ka</i> )
HIRC	Head-Internal Relative Clause	RC	Relative Clause
HON	Honorific	RedRC	Reduced Relative Clause
IMP	Imperative	RRC	Restrictive Relative Clause
INS	Instrumental case	TOP	Topic
IP	Inflectional Phrase	TP	Tense Phrase
LOC	Locative case	VOL	Volitional





# 1. Introduction

This thesis represents a description of the relativization strategies in Japanese from a cartographic point of view. First, I will outline which type of Relative Clause (RC) Japanese shows. Beyond the well-known semantic distinction between restrictive and nonrestrictive, or appositive, RCs, Japanese also shows a morpho-syntactic distinction between Externally Headed RCs (HERCs) and Internally Headed RCs (HIRCs), or at least something that resembles them. There is also a wide use of gapless relatives in which the external head does not seem to match with an element inside the relative clause.

After a brief sketch in the introduction of the main characteristics of the various types of Japanese RCs, I will turn in chapter 2 to an illustration of Cinque's proposal for a unified theory of relative clauses (see Cinque 2008a, 2010). The aim of this work is in fact to investigate if the model proposed by Cinque suits the features of Japanese RCs or if amendments are needed.

In chapter 3 I will then take into consideration some syntactic issues and examine which behaviour every type of RC in Japanese shows with respect to those issues. The topics are 1) the position of the clause relative to other elements like quantifiers, demonstratives, numerals and other RCs; 2) the distribution of the relativized elements, that is which element of a sentence among arguments and circumstantials can become the head of a RC with respect to the clause type; 3) island sensitivity, which has been discussed in the literature; 4) the availability of resumptive pronouns in place of the gap in the RC; 5) the presence of reconstruction effects between the head of the relative and a reflexive or the remaining parts of an idiom chunk; 6) the conditions for the nominative/genitive conversion inside the RC; 7) the presence of modal expressions in the RC; and 8) the presence or

absence of topics inside the RC.

In chapter 4 I will try to draw a conclusion about the relativization strategies in Japanese. To do this I will match the features of the Japanese RCs analysed in chapter 3 with the universal model proposed by Cinque depicted in chapter 2. The goal is to locate the merging position of every type of RC in the hierarchy of the extended projection of an NP.

Chapter 5 is dedicated to some conclusions.

## **1.1 Main characteristics of Japanese Relative Clauses**

Japanese is an agglutinative language with a basic SOV order. While scrambling among constituents is allowed for reason of information structure, the predicate is consistently at the end of a sentence, except when it is followed by a modal particle or by a complementizer in case of a dependent sentence. When a verb is in front of a noun or (a portion of) an extended projection of N, it closes a relative clause that modifies that NP. Thus, the basic word order is always RC>N. It is consistent with the fact that modifiers in Japanese always precede the modifiee:

1) *adjective>noun*

aka-i ringo

red-NPAST apple

“a red apple”

sizuka-na basyo

quiet-NPAST place

“a quiet place”

- 2) *genitive>noun*  
 Nihon no syuto  
 Japan GEN capital  
 “the capital of Japan”
- 3) *quantification>noun*<sup>1</sup>  
 takusan no tokei                      san-nin no hito<sup>2</sup>  
 many GEN clock                      three-CL GEN person  
 “many clocks”                      three people
- 4) *adposition>noun*  
 isi no Ikeda-san  
 doctor GEN Mr. Ikeda  
 “Mr. Ikeda, (who is a) doctor”
- 5) *relative clause>noun*  
 [syasin o totta] gakusei  
 [picture ACC take.PAST] student  
 “the student(s) that took a picture”  
 cf. gakusei wa syasin o totta  
 student TOP picture ACC take.PAST  
 “the student(s) took a picture”

As seen in the examples, a noun is modified by an element that precedes it and is marked by a particle, which is in most cases the

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1 This is the basic, non-marked position of quantifiers in Japanese. There are also other orders, the most common of them being the adverbial or absolute position of the quantifier, after the noun and without postparticles:

- a) tokei ga takusan aru  
 clock NOM many exist  
 “there are many clocks/the clocks are many”

2 Japanese is a numeral classifier language: the quantity of an item is expressed by a number followed by a sortal classifier and this group is tied to the noun by means of the genitive postposition.

genitive postparticle *no*. Adjectives and verbs of a relative clause are marked instead by a particle that realizes their adnominal or attributive form. In contemporary Japanese the difference between attributive and predicative form of verbs and adjectives is morphologically no more noticeable, except for the so called *na*-adjectives (or Adjectival Nouns) and the copula that forms an adposition:

- |  |  |
|--|--|
| 6) <i>Attributive:</i><br>Sizuka- <i>na</i> heya<br>Quiet-NPAST room<br>“a quiet room/a room that is quiet” <sup>3</sup> | <i>Predicative:</i><br>heya wa sizuka <i>da</i><br>room TOP quiet NPAST<br>“the room is quiet” |
| 7) Gakusei <i>no</i> John<br>Student GEN John<br>“John, who is a student”  | John wa gakusei <i>da</i><br>John TOP student is<br>“John is a student”                        |

Verbs and the so called *i*-adjectives (or true adjectives) do not show an overt morphological difference:

- |  |  |
|--|--|
| 8) <i>Attributive:</i><br>aka- <i>i</i> ringo<br>red-NPAST apple<br>“a red apple”  | <i>Predicative:</i><br>ringo wa aka- <i>i</i><br>apple TOP red-NPAST<br>“the apple is red” |
| 9) [daigaku e iku] Aiko<br>university to go Aiko<br>“Aiko, who goes to university” | Aiko wa daigaku e iku<br>Aiko TOP university to go<br>“Aiko goes to university”            |

---

<sup>3</sup> The relative meaning can be specified also substituting the particle *na* with the periphrastic construction *de aru* ‘to be’: [sizuka *de aru*] heya ‘a room that is quiet’.

The difference between attributive and predicative form disappears even in *na*-adjectives and adpositions when they turn into a negative or a past form; this means that the difference applies only in the non-past affirmative conjugation:

<p>10) <i>Attributive:</i>          Sizuka <i>de nai</i> heya          Quiet-NEG room          “a room that isn’t quiet”</p>	<p><i>Predicative:</i>          heya wa sizuka <i>de nai</i><sup>4</sup>          room TOP quiet-NEG          “the room isn’t quiet”</p>
<p>11) Gakusei <i>datta</i> John          Student be.PAST John          “John, who was a student”</p>	<p>John wa gakusei <i>datta</i><sup>5</sup>          John TOP student be.PAST          “John was a student”</p>

In externally headed relative clauses (HERC) there is neither a relative pronoun nor a complementizer; the attributive morphology substitutes it. Japanese has also internally headed RCs (HIRC), which instead have an overt pronoun *no*:

<p>12) Ken wa [Aiko ga keeki<sub>a</sub> o tukutta] no<sub>a</sub> o tabeta          Ken TOP [Aiko NOM cake ACC bake.PAST] <i>no</i> ACC eat.PAST          “Ken ate the cake that Aiko baked”</p>
---

Since HIRCs are not the prototypical form of a RC, and indeed they are fairly unusual, when I expose a general characteristic about RCs I refer

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4 Usually, in case of negative predicate and especially with the negative form of the copula, between the postparticle of quality *de* and the negative copula *nai* there is a contrastive *wa* particle. The result is the more common “sizuka *de wa nai* heya” and “heya wa sizuka *de wa nai*”.

5 The copulas *da* (non-past), *datta* (past), and their counterparts agglutinated with the politeness morpheme *desu* and *desita*, are sintetic forms derived by the analitic expression *de aru*, where *de* is a postparticle indicating quality and *aru* is the verb ‘to exist’. *De aru* expresses the meaning of ‘to be’, but the copulas of the *da*-family are utilized also in other construction without the meaning of ‘to be’.

to the most common HERCs; it should be noted that HIRCs could behave differently.<sup>6</sup>

Concerning tense, Japanese shows only two tenses: past and non-past. While subordinate clauses have an absolute tense that refers to speech time (ST),<sup>7</sup> RCs have also a relative tense, whose interpretation depends on the tense of the main clause (MC), the past indicating anteriority and the non-past posteriority. As noted in Makihara 2003, a past in a RC is anterior in respect to a non-past in the MC, without reference to speech time:

- 13) [NP[RC siken ni ukatta] hito] o raisyū yatou  
exam DAT pass.PAST person ACC next week hire.NPAST  
“next week (I) will hire a person who passed the exam”  
“next week (I) will hire a person who will have passed the exam”

The two possible sequences of events are thus RC>ST>MC or ST>RC>MC. In the second case the past tense in the RC represents a future event, posterior to speech time but still anterior to the main clause. On the other hand, if RC and MC have both a past tense, both events are previous respect to speech time, but the mutual order is not determined:

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6 We will see later on the real status of the HIRCs.

7 The generalization does not cover the case of subordinate clauses morphologically realized like relative clauses, with a noun as complementizer rather than a particle:

- (a) asita siken ga owatta toki koko ni kite kudasai  
tomorrow exam NOM end.PAST time (noun) here DAT come.IMP  
“tomorrow when the exam will be ended please come here”

- Cfr. (b) siken ga owatta kara koko ni kite kudasai  
exam NOM end.PAST since (prt.) here DAT come.IMP  
“since the exam finished, please come here”

- 14) [NP<sub>RC</sub> kōen ni itta] hito] ni hanasikaketa  
 park-to go.PAST person DAT speak to.PAST  
 “(I) spoke to a person<sub>a</sub> after (he<sub>a</sub>) went to the park”  
 “(I) spoke to a person<sub>a</sub> before (he<sub>a</sub>) went to the park”

In this case the two possible sequences of events are respectively RC>MC>ST (relative interpretation, or [-deictic] in Makihara’s terms) and MC>RC>ST (absolute, or [+deictic] interpretation). Similarly, I tested that a non-past in a relative clause indicates posteriority in respect to a main clause with a past tense, independent of the speech time (see 15), while a double non-past combination is about two future events, whose mutual order is though undeterminable (16):

- 15) [NP<sub>RC</sub> siken ni ukaru] hito] o yatotta  
 exam DAT pass.NPAST person ACC hire.PAST  
 “(I) hired a person that (then) passed the exam”  
 “(I) hired a person that will pass the exam”

- 16) [NP<sub>RC</sub> 1000 en ijō kifu suru] hito] wa pātī ni  
 1000 yen over donate.NPAST person TOP party DAT  
 sankā dekiru  
 take part POT.NPAST  
 “The persons who will have donated more than 1000 yen can take part in the party”  
 “The persons who will donate more than 1000 yen can take part in the party”

## 1.2 Types of Japanese Relative Clauses

### 1.2.1 Restrictives and Nonrestrictives

The distinction between nonrestrictive and restrictive clauses resides primarily in whether the head is identifiable independently of the relative clause or not. In Japanese there is no overt morphological difference between the internal structure of these two kinds of RCs; in both cases the clause precedes the relativized noun:

17) [ringo o tabeta] hito  
apple ACC eat.PAST person  
“The person that ate an apple”

18) [ringo o tabeta] Tanaka-san  
apple ACC eat.PAST mr. Tanaka  
“Mr. Tanaka, who ate an apple”

The nonrestrictive meaning is straightforward if the head is a proper noun or an already well identified substantive, but it can be associated also with a morphologically indefinite head if it refers to a unique element in the shared knowledge of speaker and hearer:

19) [ringo o tabeta] otoko no hito wa dekaketa  
apple ACC eat.PAST male GEN person TOP go out.PAST  
“The man that ate an apple went out”  
“The man, who had eaten an apple, went out”

There are no differences in the elements' position nor in the type of relative pronoun, in that no relative pronoun is used in externally headed RCs. A distinction emerges when the RC contains a wh-element:



contrary to English, a Japanese restrictive RC can contain a wh-word, but the constraint still holds in nonrestrictives (Miyake 2011: 94-95):

20) anata wa [nani o kaita] sakka o sitteiru no  
you TOP what ACC write.PAST novelist ACC know.NPAST Q  
Lit. “What<sub>a</sub> do you know a novelist that wrote \_\_<sub>a</sub>?”

21) \*anata wa [nani o kaita] Murakami o sitteiru no  
you TOP what ACC write.PAST ACC know.NPAST Q  
Lit. “What<sub>a</sub> do you know Murakami who wrote \_\_<sub>a</sub>?”

Miyake 2011 starts from the observation that a sentence like

22) anata wa [dare o hihan siteiru] hon o yomimasita ka  
you TOP who ACC criticize.NPAST book ACC read.PAST Q  
Lit. “Whom did you read [a book that criticizes]?”

can be answered in two ways: e.g. “Chomsky”, corresponding to the bare wh-constituent, or “a book that criticizes Chomsky”, corresponding to the entire RC+NP complex. It can be stated that in Japanese the wh-feature percolates to the whole RC+NP if the RC is restrictive, but it does not percolate in case of a nonrestrictive.

In section 1.1 I have already mentioned that tense in Japanese RCs is both an absolute and a relative tense. A qualification is in order, inasmuch as in case of nonrestrictive RCs only an absolute tense interpretation is possible (Miyake 2011: 97-98):

23a) [syūron o kaiteiru]                      gakusei ga sono gakkai  
thesis ACC write.PROG.NPAST student NOM that conference  
de happyō sita  
LOC presentation do.PAST

“A student that was writing the thesis made a presentation at that conference” (relative interpretation)

“A student that is writing the thesis made a presentation at that conference” (absolute interpretation)

23b) [syūron o kaiteiru] Tarō ga sono gakkai  
thesis ACC write.PROG.NPAST NOM that conference  
de happyō sita  
LOC presentation do.PAST

“Taro, who is writing the thesis, made a presentation at that conference” (absolute interpretation)

### 1.2.2 Head-External, Head-Internal and Headless relatives

As seen in all the examples of the previous section, the prototypical layout of a Japanese RC is a Head-External construction (HERC). In this construction the RC precedes, and is separated from, an external head, which is a NP identical to a NP originally inside the RC. Different theories and analyses postulate that this construction derives either by movement of the head NP from inside the RC to the external position, leaving a gap, or by direct merge of the head outside the RC and consequent deletion of the identical NP inside the clause. Enlightened by an illustration of Cinque’s proposal for a unified theory of relative clauses in chapter 2 and by tests in chapter 3, we will see later on which derivation is most suitable to the Japanese case.

Japanese also has Head-Internal RCs. This is not surprising, since in Cole 1987 it is noted that HIRCs often alternate with prenominal RCs. In this construction the RC is a full clause without gaps, and in place of the external head there is a pronoun, *no*, which refers to a constituent (or to the entire content, see 25) of the RC. Consider 24:

- 24) Ken wa [Aiko ga keeki<sub>a</sub> o tukutta] no<sub>a</sub> o tabeta  
 TOP NOM cake ACC bake.PAST no ACC eat.PAST  
 “Ken ate the cake that Aiko baked”

A HIRC and the correspondent HERC are not fully interchangeable, though. Indeed, HIRCs have some properties that lead me to believe that they are not real relative clauses, but a different kind of clause. Thus, I do not intend to develop an analysis of HIRCs in this dissertation, but I will mention here the main properties of these clauses nonetheless.<sup>8</sup>

First, the head of a HIRC is morphologically indeterminate, there is no clear sign of which constituent the external pronoun *no* corefers with. The association occurs at a logical level. Furthermore, what the external pronoun *no* seems to refer to, is not just an element inside the HIRC, but the result of the event described:

- 25) John wa [kooi ga sara no ue de toketesimatta] no o  
 TOP ice NOM plate GEN top LOC melt.PAST no ACC  
 gokugoku nonda  
 gulp down.PAST  
 “John gulped down the water which resulted from the ice’s  
 having melted on the plate”

(Hoshi 1995: 120)

The sentence in 25 cannot be converted into a corresponding HERC without getting a weird reading:

- 26) #John wa [ \_\_<sub>a</sub> sara no ue de toketesimatta] kooi<sub>a</sub> o  
 TOP plate GEN top LOC melt.PAST ice ACC

---

<sup>8</sup> An account of the characteristics of HIRCs are mainly due to Kuroda 1992, Hoshi 1995 and Kim 2004.

gokugoku nonda  
 gulp down.PAST  
 “John gulped down the ice which had melted down on the  
 dish”

(Kim 2004: 46)

The difference between 25 and 26 resides in the fact that the external head represented by the pronoun *no* in 25 refers to an entity, the water, which is drinkable, resulting from the event described inside the HIRC; while the external head in 26 represents one element of the HERC, the ice, which is not drinkable and thus fits in directly with the main clause in an inappropriate way.

Further, it has been noted by Kuroda 1992 that “Japanese HIRCs are legitimately base-generated (externally merged) only into  $\theta$ -marked positions” (quotation in Narita 2007: 61). Kuroda points out The Relevancy Condition (Kuroda 1992: 147):

“For a pivot-independent relative clause<sup>9</sup> to be acceptable, it is necessary that it be interpreted pragmatically in such a way as to be directly relevant to the pragmatic content of its matrix clause.”

To be more precise, a HIRC can identify only an element that is involved in an action as its subject, direct or indirect object or other syntactic role, but not the subject or the predicative part of a nominal predicate. This distributional constraint does not hold for HERCs. Compare 27a and 28a (HIRCs) with 27b and 28b (HERCs):

27a) \*? kore wa [ima Picasso ga syōzōga o kaiteiru] no de aru.  
 this TOP now NOM portrait ACC is.drawing *no* COP

---

<sup>9</sup> Kuroda calls HIRCs 'pivot-independent relative clauses'.

Lit. “This is [Picasso is now drawing a portrait]”

(Narita 2007: 65)

27b) kore wa [ima Picasso ga \_\_\_<sub>a</sub> kaiteiru] syōzōga<sub>a</sub> de aru  
this TOP now NOM is.drawing portrait COP  
“This is the portrait that Picasso is drawing now”

28a) \*[soko de Tanaka san ga tatteiru] no wa isya da  
there LOC NOM is.standing no TOP doctor COP  
Lit. “[Mr. Tanaka is standing there] is a doctor”

28b) [soko de \_\_\_<sub>a</sub> tatteiru] Tanaka san<sub>a</sub> wa isya da  
there LOC is.standing TOP doctor COP  
“Mr. Tanaka, who is standing there, is a doctor”

More, a HIRC cannot occupy the theta-role's positions of Instrument and Source (Hoshi 1995, in Tonosaki 1998: 149):

29) \*Mary wa [John ga naifu o kattedkita] no de  
TOP NOM knife ACC buy.PAST no with  
ringo o kitta  
apple ACC cut.PAST  
“Mary cut an apple with the knife which John bought”

30) \*Watasi wa [Mary ga ringo o kattedkita] no kara  
I TOP NOM apple ACC buy.PAST no from  
pai o tukutta  
pie ACC make.PAST  
“I made a pie from the apples which Mary bought”



32a) Hanako ga akai/Aomorisan no/sono [Tarō ga \_\_<sub>a</sub>  
 NOM red/product in Aomori GEN/that NOM  
 kattekita] no<sub>a</sub> o totta  
 buy.PAST *no* ACC pick up.PAST  
 “Hanako picked up the red one/the one produced in  
 Aomori/that one that Tarō bought”

32b) \*Hanako ga akai/ Aomorisan no/sono [Tarō ga  
 NOM red/product in Aomori GEN/that NOM  
 ringo o kattekita] no<sub>a</sub> o totta  
 apple ACC buy.PAST *no* ACC pick up.PAST  
 “Hanako picked up the red apple/the apple produced in  
 Aomori/that apple that Tarō bought”

33a) Hanako ga [\_\_<sub>a</sub> ekimae no yaoya de utteita  
 NOM station.front GEN greengrocer LOC sell.PAST  
 [Tarō ga \_\_<sub>a</sub> kattekita]] no<sub>a</sub> o totta  
 NOM buy.PAST *no* ACC pick up.PAST  
 “Hanako picked up the one that was on sell at the  
 greengrocer in front of the station that Tarō bought”

33b) \*Hanako ga [\_\_<sub>a</sub> ekimae no yaoya de utteita  
 NOM station.front GEN greengrocer LOC sell.PAST  
 [Tarō ga ringo o kattekita]] no<sub>a</sub> o totta  
 NOM apple ACC buy.PAST *no* ACC pick up.PAST  
 “Hanako picked up the apple that was on sell at the  
 greengrocer in front of the station that Tarō bought”

(Hasegawa 2002: 5-6)

Last, I point out that HIRCs have been believed by many researchers to have an E-type pronoun as external head, which entails

a maximality effect that the corresponding HERCs do not have (34a and 35a from Hoshi 1995, see also Shimoyama 1999):

34a) John wa [Mary ga sanko no ringo o muitekureta]  
TOP NOM 3.Cl GEN apple ACC peel for him.PAST  
no o tabeta  
no ACC ate.PAST  
“John ate (all) the three apples that Mary peeled for him”

34b) John wa [Mary ga \_\_<sub>a</sub> muitekureta] sanko no ringo<sub>a</sub> o  
TOP NOM peel for him.PAST 3.Cl GEN apple ACC  
tabeta  
ate.PAST  
“John ate three apples that Mary peeled for him”

35a) Tarō wa [Yōko ga reizōko ni kukkī o hotondo  
TOP NOM fridge DAT cookies ACC most  
ireteoita] no o pātī ni motteitta  
put in.PAST no ACC party DAT bring.PAST  
“Taro brought to the party the cookies that Yoko put in the  
refrigerator (which was most of the cookies) / Yoko put in the  
refrigerator most of the cookies and Taro brought them to the  
party”

35b) Tarō wa [Yōko ga reizōko ni \_\_<sub>a</sub> ireteoita] kukkī o  
TOP NOM fridge DAT put in.PAST cookies ACC  
hotondo pātī ni motteitta  
most party DAT bring.PAST  
“Taro brought to the party most of the cookies that Yoko put  
in the refrigerator”



In 34a (HIRC) Mary peeled only three apples and John ate all of them, while in 34b (HERC) the number of apples peeled by Mary is unknown, but John ate three of them. Similarly in 35a, if Yoko had prepared 80 cookies, she would have put 70 of them in the refrigerator and Taro would have brought those 70 cookies to the party; while in 35b we don't know how many cookies Yoko prepared, nor how many she put in the refrigerator, but Taro brought to the party most of the cookies he found in the fridge. Thus, the sentences with a HIRC do not share the same truth conditions with the corresponding ones with a HERC. A quantifier inside a HIRC takes scope over the whole HIRC and the external pronoun *no* refers to an entity already quantified by it; in case of HERC the quantifier remains outside the relative clause by the external head and takes scope over the matrix sentence but not over the RC. In 34a and 35a the external head *no* refers to all the items inside the HIRC and this is what is meant for 'maximality effect' of an E-type pronoun. More recently, Kubota-Smith 2006 refute the thesis that *no* in HIRCs is an E-type pronoun pointing out some relevant counterexamples. First, there are HIRCs with a non-maximal interpretation:

- 36) Tarō wa [kan no naka ni ame ga haitteita] no o  
 TOP can GEN inside DAT candy NOM in be.PAST *no* ACC  
 toridasite nameta  
 pick out.and eat.PAST  
 “Taro picked out and ate one/some of the candies that were  
 in the can”

Then, the authors show that the maximality interpretation is induced by pragmatic effects rather than syntax:

37a) (At the security check of an airport)

Dono zyōkyaku mo [poketto ni koin ga haitteita] no o  
every passenger pocket DAT coin NOM in be.PAST *no* ACC  
toridashite torei ni noseta  
pick out.and tray DAT put.PAST  
Every passenger picked up the coins that she/he had in  
her/his pocket and put them on the tray”

37b) (At the ticket gate at a train station)

Dono zyōkyaku mo [saifu ni kaisūken ga  
every passenger wallet DAT coupon ticket NOM  
haitteita] no o toridasite kaisatu ni ireta  
in be.PAST *no* ACC pick out.and ticket checker DAT put.PAST  
“Every passenger picked up a coupon ticket that she/he had  
in her/his wallet and put it in the ticket checker”

(Kubota-Smith 2006: 6-7)

Finally, I agree with the conclusions of Kubota-Smith summarized in the following three points: 1) HIRCs exhibit both maximal and non-maximal interpretations; 2) in both cases, the interpretation depends on context; 3) they receive exclusively maximal interpretations with numerical classifiers and quantifiers with existential presuppositions (p. 11).

### 1.2.3 Pseudo-relative or gapless and *to iu* type RCs

Setting apart the case of the HIRCs, we have seen relative clauses in which the external head is originally an element of the clause itself. The result is a clause with a gap inside, therefore they are called *gapped* relatives. However, Japanese shows clear instances of *gapless*

relatives too, otherwise called 'pseudo-relatives'.<sup>10</sup> In this case the RC is a full-fledged sentence next to a noun that has no syntactic relationship with the clause. The external noun expresses the content of the RC (38), or a spatial, temporal or cause-effect relation to the content of the RC (40):

38) [sakana o yaku] nioi  
 fish ACC grill.NPAST smell  
 "The smell of (someone's) grilling the fish"

39) [\_\_<sub>a</sub> sakana o yaku] otoko<sub>a</sub>  
 fish ACC grill.NPAST man  
 "The man that grills the fish"

40) [orinpikku ga atta] yokunen  
 Olympic games NOM exist.PAST the following year  
 "The year after having the Olympic games"

In 38 (gapless) the RC *sakana o yaku* expresses the content of the noun 'smell', answering a question like "a smell of what?" On the opposite, in 39 (gapped) the same RC does not describe the noun 'man', but identifies it answering the question "which man?" On the other hand, in 40 the head *yokunen* 'the following year' indicates a temporal point defined on the basis of the temporal point in which the event of the RC happens. So, if we pretend that the Olympic games held in 1984, the following year will be 1985. In both cases, the external noun does not find a place inside the RC, but is totally unrelated to it.

Some gapless RCs have an overt complementizer, *to iu*: *iu* is the verb 'to say' and *to* is the particle that functions as declarative

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10 According to the terminology invented by Teramura (Teramura 1975-1978: 192-205), gapped relatives are called 'inner relationship' (*uti no kankei*), and gapless relatives are called 'outer relationship' (*soto no kankei*).

complementizer both in direct and indirect speech. Let's see first an example of declarative sentence:

- 41) Hanako wa keeki o tukutta to itta  
TOP cake ACC bake.PAST that say.PAST  
“Hanako said that she baked a cake”

There are no (overt) morphological differences between direct and indirect speech: the sentence above can be translated as “Hanako said ‘I baked a cake’” if *keeki o tukutta* is inside quotation marks. Then, let's see an example of *to iu*-RC:

- 42) kaigai de nihongo o osieru to iu keiken  
abroad LOC Japanese ACC teach *to iu* experience  
“The experience of teaching Japanese abroad”<sup>11</sup>  
(Manabe 2008: 53)

The insertion of *to iu* divides the gapless relatives into three groups: a) clauses in which *to iu* is necessary; b) clauses in which *to iu* is optional; c) clauses in which *to iu* is forbidden. According to Teramura 1975-1978, the presence or absence of *to iu* depends both on the nature of the external head that follows it, and on the structure of the clause that precedes it. As far as the morphosyntax of the RC is concerned, Teramura claims that the higher is the last projection of the clause (for instance entering the domain of modality), the more necessary is the presence of *to iu*, while on the contrary the smaller is the predicate of the clause, the more unnecessary, if not even wrong becomes the presence of *to iu* (p. 267). I will handle this issue in detail in chapters

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<sup>11</sup> It sounds literally like “the experience that (someone) calls ‘teaching Japanese abroad’”

3.6-3.7-3.8. In addition, *to iu* is mandatory if the clause ends with the copula *da* or with an imperative form:

- 43) [kono zairyō ga fukaketu da] \*(to iu) zyōken  
this ingredient NOM essential COP *to iu* condition  
“The condition that this ingredient is essential”

cfr. with

- 44) [kare ga tuite kuru] (to iu) zyōken o nonda  
he NOM follow.NPAST *to iu* condition ACC accept.PAST  
“I accepted the condition that he follows us”

- 45) [kotti ni koi] \*(to iu) meirei  
here DAT come.IMP *to iu* order  
“The order of come here/the order 'come here'”

As regards the nature of the external head,

- a) with nouns that indicate an utterance or a thought (*verba dicendi* and *cogendi*), *to iu* is mandatory;
- b) with nouns that indicate physical perceptions, *to iu* is forbidden;
- c) with nouns that indicate facts and (abstract) things in general, *to iu* is optional (its presence depends on other factors).

It belongs to the group a) nouns like *kotoba* 'word', *monku* 'complaint', *henzi* 'reply', *sasoi* 'invitation', *uwasa* 'rumor', *kangae* 'idea', *iken* 'opinion', *katei* 'hypothesis', *kitai* 'expectation', *sōzō* 'guess', etc. (more examples in Teramura 1975-1978: 269-275). The reason of the presence of *to iu* is evident if we consider that the verbs

corresponding to the nouns above bear a declarative clause with the complementizer *to*:

46a) [sono sigoto o hikiukeyō] to kessin suru  
that work ACC undertake.VOL that determination do.NPAST  
“To decide to undertake that work”  
(Lit. “To decide ‘let’s undertake that work’”)

46b) [sono sigoto o hikiukeyō] to iu kessin  
that work ACC undertake.VOL *to iu* determination  
The determination to undertake that work”  
(Teramura 1975-1978: 267)

In most cases, these nouns are related to the corresponding verbs by adjoining the dummy verb *suru* ‘to do’, like in *hōkoku - hōkoku suru* ‘report-to report’ and *irai - irai suru* ‘request-to request’. In other cases, the verb takes its nominal form like in *omou - omoi* ‘to think-thought’ and *kangaeru-kangae* ‘to think-idea/thought’.

It belongs to the group b) nouns of perceptions and concepts perceivable with the five senses like *azi* ‘taste’, *oto* ‘sound’, *nioi* ‘smell’, *sugata* ‘appearance’, *katati* ‘shape’ and other things that are seen with one’s own eyes. In this case *to iu* cannot intervene. It is also easier than in other cases that the subject of this kind of RC is marked by the genitive particle *no* instead of the nominative *ga*, but this point will be discussed in detail in chapter 3.6.

47a) [tamago no/ga kusatta] (\*to iu) nioi  
egg GEN/NOM rot.PAST smell  
Lit. “The smell of an egg rotted”  
(Teramura 1975-1978: 287)

Teramura notes that in general all the instances of this kind of RC can be scrambled and presented as if the external head were modified by the subject of the clause in a genitive structure, without changes in meaning, like in 47b:

- 47b) [\_\_<sub>a</sub> kusatta] tamago<sub>a</sub> no nioi  
 rot.PAST egg GEN smell  
 “The smell of an egg that rotted”

It belongs to the group c) nouns of other things and abstract concepts like *zizitu* '(real) fact', *koto* 'thing, fact', *ziken* 'accident', *unmei* 'destiny', *keiken* 'experience', *syūkan* 'custom', *rekisi* 'story', *yume* 'dream', *kanōsei* 'possibility', *sigoto* 'work', *hōhō* 'method' and many others. With this category of nouns the presence of *to iu* is discretionary. As already reported, according to Teramura the higher is the last projection of the RC, the more necessary becomes *to iu*, but there are also other factor that seem relevant to this matter. Manabe 2008 argues that *to iu* is fit for general exemplifying expressions, while if the RC expresses a specific, concrete and tensed fact, *to iu* is not required. Compare 48 and 49 (from Manabe 2008: 54):

- 48) Tarō wa [oya no me no mae de kodomo ga  
 TOP parents GEN eye GEN front LOC child NOM  
 korosareru] {?\*Ø/to iu} ziken nado arienai to  
 kill.PSV.NPAST *to iu* incident etc. inconceivable that  
 omotteiru  
 think.NPAST  
 “Taro thinks that incidents like a child is killed in front of  
 parent's eyes are inconceivable”

- 49) Tarō wa [me no mae de Hanako ga korosareta]  
 TOP eye GEN front LOC NOM kill.PSV.PAST

{Ø/?\*to iu} ziken no syōnin to site hōtei de  
 to iu incident GEN witness as courtroom LOC  
 syōgen sita  
 testify.PAST

“Taro testified in the courtroom as witness of the incident in which Hanako was killed in front of (his) eyes”

48 represents a general, theoretical example, and the sentence is better with *to iu* inserted. On the contrary, 49 represents a specific fact and the sentence improves without *to iu*. Specificity and generality are conveyed through different elements like tense, common or proper nouns, and time specifications. There is not a unique morphological sign that defines the specificity or the generality of an expression. Compare the following pair of sentences:

- 50) [Kaigai de seikatu suru]{Ø/to iu} keiken wa  
 overseas LOC live.NPAST to iu experience TOP  
 dare ni tote mo kityōna mono ni naru de arō  
 for.everyone precious thing DAT become probably  
 “The experience of living overseas will be probably a precious thing for everyone”

- 51) [Rainen kaigai de seikatu suru]{Ø/?\*to iu} keiken  
 Next year overseas LOC live.NPAST to iu experience  
 wa Hanako ni tote kityōna mono ni naru de arō  
 TOP for precious thing DAT become probably



“The experience of living overseas the next year will be probably a precious thing for Hanako”

(Manabe 2008: 60)

In 50 the sentence has an overall generic meaning, while the sentence in 51 is specified and contextualized by a temporal expression and a proper name. The boundary between the intervention and non intervention of *to iu* is not clear-cut, though: in 48 the zero morpheme is awkward for Manabe, while in 50 seems acceptable, although both sentences are generic. The judgements about these expressions are divided among the speakers, but it may be said that there is a trend, according to which *to iu* intervenes more when the sentence expresses a generic meaning and disappear the more specific the sentence is. From this point of view, it is clearer why gapless relatives headed by nouns of physical perception (those of group b) cannot have *to iu*: in those cases the RC describes exactly the content of that particular sound or smell and there is no way to be treated as a general example of sound or smell.

In addition to *to iu*, there is also another possible complementizer for gapless RCs: *to no*, which is formed by the declarative complementizer *to* and the genitive particle *no*. As for the function, these two complementizers seem interchangeable, but at a closer analysis some differences emerge. *To iu* is more suitable to signal a direct speech, for example in case of onomatopoeia:

- 52) Buzaa {to iu/\*to no} oto  
'buzz' *to iu* / *to no* sound  
“A sound like 'buzz'”

The difference is noticeable when the quotation entails a bound pronoun:

53a) Kare<sub>a</sub> wa [ore<sub>a</sub> ga iku] {to *iu*/\*to *no*} hanasi  
 He TOP I NOM go.NPAST *to iu* / *to no* discourse  
 o sita  
 ACC do.PAST  
 “He made the discourse (=He said) ‘I go’”

53b) Hanako<sub>a</sub> wa [kanozyo<sub>a</sub> ga iku] {?to *iu*/to *no*} hanasi  
 TOP she NOM go.NPAST *to iu* / *to no* discourse  
 o hitei sita  
 ACC deny.PAST  
 “Hanako denied the discourse (=She denied) that she would go”<sup>12</sup>

According to Masuoka 2010, *to iu* cover a wider range of cases, either of direct and indirect speech, but *to no* seems prevail on *to iu* in the indirect speech (like in 53b). In general, *to no* intervenes in a subset of cases in which *to iu* does, in particular in sentences with a specific meaning, because in generic expressions it results in unacceptability:

54) [Dansei ga kesyō o suru] {∅/to *iu*/\*to *no*} fūsyū  
 Men NOM make-up ACC do.NPAST *to iu* / *to no* custom  
 “The custom of men making themselves up”

*To iu* can close large RCs with high projections, like topics and every kind of modality, which are not admissible inside the smaller gapped RCs (we will see this issue in detail in chapters 3.7 and 3.8). The clauses headed by *to no* are larger than gapped RCs too, but it seems that they are not so wide as those with *to iu*. Compare the following:

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<sup>12</sup> Examples 53a-b were point out to me by Yoshio Endo (personal communication).

55) [Taifū ga kuru rasii zo] to iu keikoku  
Typhoon NOM come.NPAST seem *zo to iu* warning  
Lit. “The warning that hey, a typhoon seems to come”

56a) [Kikoku sareta] to no koto...  
Return.HON.PAST *to no* fact  
“The fact that You returned to Your country...”

56b) ??[Kikoku saremasita ne] to no koto  
Return.HON.POL.PAST *ne to no* fact  
Lit. “The fact that You returned to Your country, isn't it?”  
(from handouts of Yoshio Endo's lessons)

55 contains *rasii*, that expresses a speaker-oriented modality, and *zo*, that is a final particle that functions as hearer-oriented speech act modality. The RC thus ends up with high projections, but is acceptable since it is closed by *to iu*. 56b contains the polite morpheme *-mas-*, which is properly used in direct speech, and the final particle *ne*, that is similar to (and as high as) *zo*, but the expression is degraded since it is closed by *to no*. Therefore, I guess that a RCs without complementizer (gapped or gapless) are (relatively) small, RCs with *to no* are larger than the first, and the RCs with *to iu* are the largest. I will consider in chapter 3 how small and how large these clauses are.

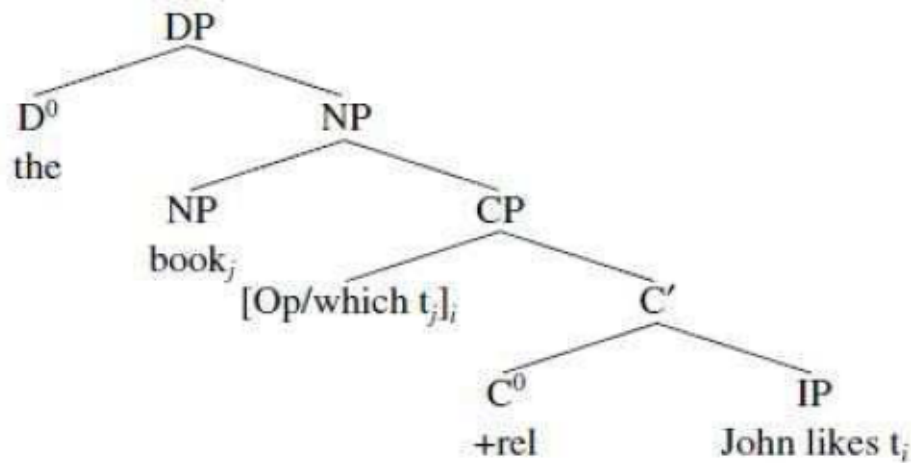


## 2. Cinque's theory on the universal structure of relative clauses

In this chapter I describe Cinque's proposal for a unified theory of relative clauses, focusing in particular on the elements regarding the types of RC that Japanese shows, and that I listed in chapter 1.2. For an extensive explanation of the entire theory proposed by Cinque I refer to Cinque 2008a, 2008b and 2010b. It is beyond the scope of this dissertation to discuss the general theoretical framework in which the proposal arose and its validity for every language; I will treat the matter only in relation to Japanese RCs.

A brief introduction to the preexisting theoretical models for the derivation of RCs that led to the present theory will help. We can limit the choice to two models: the *Head Raising (or Promotion) Analysis* and the *Matching Analysis*. In the earlier version of the Head Raising Analysis by Shachter 1973 and Vergnaud 1974 (among others), the RC is a CP adjoined to an NP dominated by a DP, and C° hosts a relative complementizer (if needed) like *that* in English or *che* in Italian; the head-noun originates inside the RC and raises to SpecCP together with an optional relative pronoun, like *which* in English or *il quale* in Italian, or with an empty operator, and from there the NP-head alone raises again to the NP sister to CP. The relative pronoun is considered a determiner of the NP, so they move together as in an interrogative sentence like “[which book]<sub>a</sub> did you read t<sub>a</sub>?”.

1) the [book]<sub>j</sub> [CP[Op/which t<sub>j</sub>]<sub>i</sub> John likes t<sub>i</sub>]

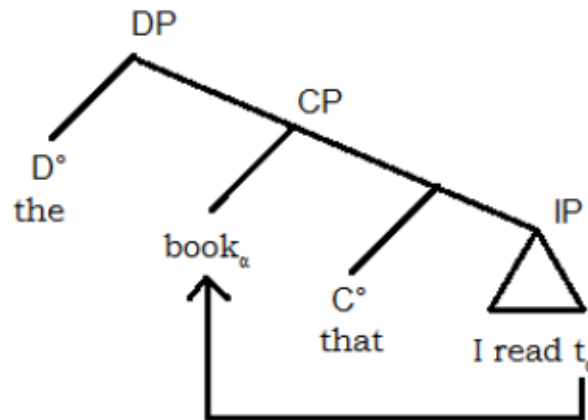


(Bhatt 2002: 45)

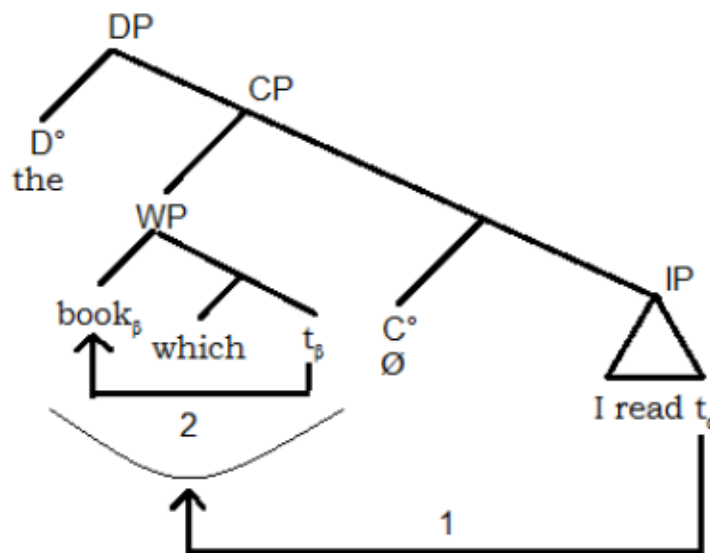
The external determiner takes scope over the entire combination of NP-head+RC below it, it does not originate, together with the NP, inside the relative clause. In fact a sentence like “no book that I read was interesting” does not entail “I read [no book]”.

Kayne 1994 basically agrees with this analysis, but modifies it slightly to make it consistent with his antisymmetric approach (which I also assume in this work). According to the antisymmetric framework, insofar as no right adjunction is allowed, a CP cannot be sister to an NP. Nor can be CP the complement of a bare N, since the head of a relative clause can be a full NP like in “I found the [two pictures of John's] that you lent me”. Kayne proposes the structure [DP D° CP], where CP is a complement of D, C° hosts a relative complementizer and SpecCP is the landing site for the NP-head that raises from the sentence to SpecCP. In English, in a restrictive *that*-relative what raises to SpecCP is a simple NP (see 2a), while in a nonrestrictive *which*-relative the whole *which*+NP raises, and at a later stage the NP raises further to its specifier, yielding to the final word order e.g. in “the [CP[book<sub>β</sub> [which t<sub>β</sub>]]<sub>α</sub> Ø [I read t<sub>α</sub>]]” (see 2b).

2a)



2b)



Regarding prenominal RCs, about which Kayne claims that they lack relative pronouns, an additional raising of (the remnant of) IP to SpecDP must be considered in the derivation in order to get the correct word order.<sup>1</sup> The fact that in the Head Raising Analysis the NP-head originates inside the RC and then moves out of there explains the correct reconstruction of the meaning of an idiom chunk. For instance, the

<sup>1</sup> Kayne also quotes Keenan (1985: 160) claiming that “the verbs of prenominal relatives are nonfinite/participial, having reduced tense possibilities as compared with finite verbs” (Kayne 1994: 95).

expression “to make headway”, even if it is split into a RC and its head, like in “the headway [that John made] is impressive”, is still correctly understood with its idiomatic meaning because this is interpreted in the original location of the head inside the RC. The same reconstruction effect is detectable between an anaphor and its antecedent, although the anaphor appears superficially not c-commanded by the antecedent, apparently violating Condition A of the Binding theory: in “The two pictures of himself<sub>a</sub> [that John<sub>a</sub> made t<sub>a</sub>] are very beautiful” the sentence is correct because the meaning of the anaphor *himself* is interpreted in the original position inside the RC under the c-command of its antecedent *John*. Another phenomenon that is explained well by a movement derivation is Inverse (Case) Attraction, instantiated for example by sentence 4 in Afghan Persian, where the head of the RC retains the case marker of the original position inside the RC:

- 3) doxtar ey ra [ke jon mišnose] inja æs  
 girl ART ACC COMP John know.3 here be.3

“The girl that John knows is here”

(From Houston 1974: 43, found in Cinque 2010b: 3)

The movement derivation of RCs is parallel to the movement derivation of wh-interrogative sentences, as shown in 4-5:

- 4a) The headway<sub>a</sub> [that John made t<sub>a</sub>] is impressive  
 4b) What headway<sub>a</sub> did John make t<sub>a</sub>?  
 5a) The two pictures of himself<sub>a</sub> [that John<sub>a</sub> took t<sub>a</sub>] are very  
 beautiful  
 5b) Which pictures of himself<sub>a</sub> did John<sub>a</sub> show you t<sub>a</sub>?



But the similarity breaks down when it comes to Condition C of the Binding theory:

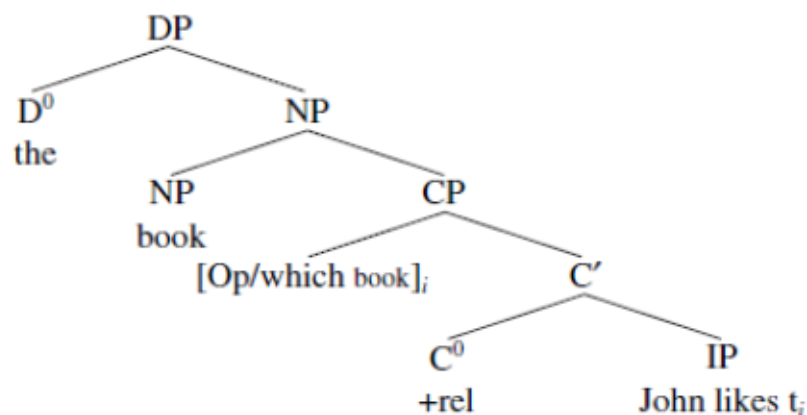
6a) \*Which picture of John<sub>a</sub> did you think he<sub>a</sub> liked t<sub>a</sub>?

6b) The picture of John<sub>a</sub> that you thought he<sub>a</sub> liked t<sub>a</sub> is on the mantle

(from Vai 2012: 42)

If in both 6a and 6b the constituent with the R-expression *John* is interpreted in the trace position bound by the pronoun *he*, we should expect both sentences to be ungrammatical, but the sentence with the RC is not. The grammaticality of 6b is explained by the *Matching Analysis*, originally proposed by Chomsky 1965 (among others) and extended by Sauerland 1998. According to this model, the structure is the same of that of the Head Raising Analysis, but the NP-head is not moved but base generated externally as well as internally to the RC. The lower copy is then deleted due to c-command by the higher one. What is crucial in this analysis is that the two copies of the NP do not form a chain (the two versions can differ a bit, indeed), so there aren't transformational relations that potentially block a configuration like 6b.

7) the [book] [<sub>CP</sub>[Op/which book]<sub>i</sub> John likes t<sub>i</sub>]



(Bhatt 2002: 45)

Another piece of evidence for the Matching Derivation is the full repetition of the head inside the RC, where the NP-head is clearly present in both the external and internal position. See the example in Italian in 8:

8) Non hanno ancora trovato una **sostanza**, [dalla quale **sostanza** ricavare un rimedio contro l'epilessia]

“They have not found a substance from which substance to obtain a remedy against epilepsy”

(Cinque 1978: 88f, in Cinque 2010b: 4)

It seems therefore that the two approaches, the Head Raising Analysis and the Matching Analysis, are both necessary to explain different types of relative clauses. Cinque (2008a, 2010) proposes a new structural model that incorporates the two previous analyses and provides a unified and consistent account for the derivation of all types of RCs found across languages: externally headed postnominal, externally headed prenominal, headless, internally headed, double headed and correlative RCs. The basic idea is that a RC is one of the several elements that modify a noun, among adjectives, determiners, quantifiers, numerals etc. Assuming a cartographic perspective, everyone of these elements is ordered with respect to the others in a hierarchycal (and linear) sequence of projections. Starting from Greenberg's Universal 20 (Greenberg 1963), Cinque states that the basic order between Determiners, Numerals, Adjectives and Nouns is Dem>Num>A>N; other orders are derived by simple raising of NP before one or more elements or by pied-piping, giving as output a (partial or total) mirror image of the initial sequence. These are fundamentally the only two possible movements that originate every word order that distinguishes a language from another. The same pattern is indeed detectable for instance in the sequence of a Noun and the various types

of Adjectives ( $A_{\text{size}} > A_{\text{color}} > A_{\text{nationality}} > N$ , see Cinque 2010a) or the sequence of a Verb and the various types of Adverbs ( $\text{Adv}_{\text{no longer}} > \text{Adv}_{\text{always}} > \text{Adv}_{\text{completely}} > V$ , see Cinque 1999). It seems that the two open-class categories of Nouns and Verbs function as the centre of gravity for their modifiers and position themselves at the end of the sequence, raising (or not) from there and reaching higher positions. Following this general setting, let's look at a RC from the point of view of the NP-head: it is a Noun qualified by e.g. adjectives, numerals, quantifiers and an entire clause. On the base of data from several languages, Cinque (2010b) proposes the following general projection:

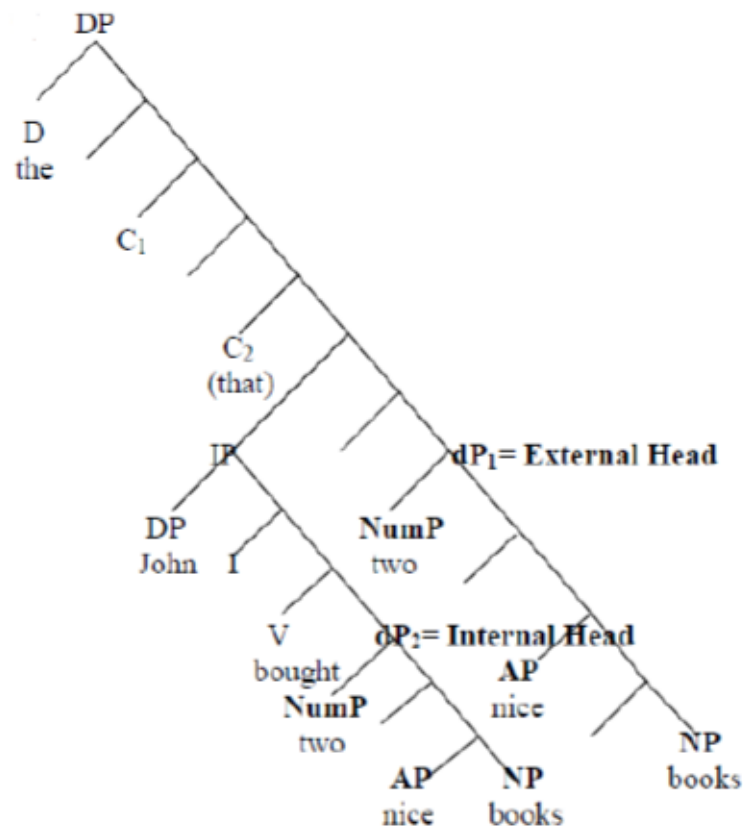
9)  $\text{NRRC} > \text{Q}_{\text{all}} > \text{Dem} > \text{RRC} > \text{Num} > \text{RedRC} > \text{A} > \text{N}$

For example, German gives evidence for the position of reduced RCs:

10) Diese drei [in ihrem Büro arbeitenden]  
 these three in their office that.are.working.NOM.PL  
 schönen Männer  
 handsome.NOM.PL man.PL  
 “These three handsome men working in their office”

Many languages give evidence for of the order  $\text{Dem} > \text{RC} > \text{Num} > \text{A} > \text{N}$  or of its exact mirror image  $\text{N} > \text{A} > \text{Num} > \text{RC} > \text{Dem}$ . There are some occurrences also for the orders  $\text{RC} > \text{Dem} > \text{Num} > \text{A} > \text{N}$  and  $\text{N} > \text{A} > \text{Num} > \text{Dem} > \text{RC}$ . I will face in detail the order of projections in Japanese in chapter 3.1. As for the RC structure, Cinque (2008a) proposes the following configuration:

11)



(Cinque 2008a, 10)

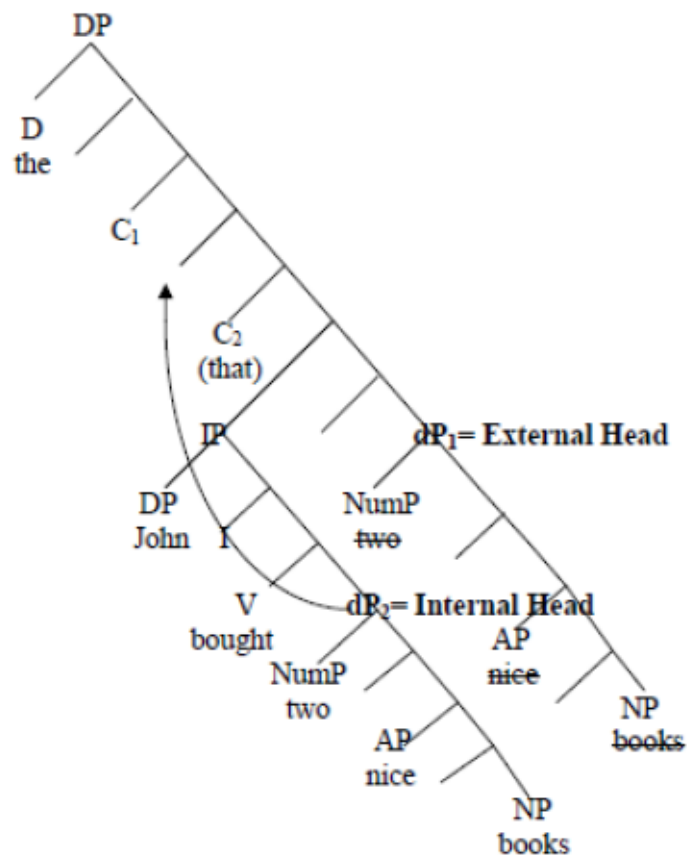
The NP is in the lowest position of the tree. Above it the modifying items come in succession, following the order depicted in 8. The (restrictive) RC is an IP that is merged most likely above NumP. Above the RC are one or maybe two CPs: the lowest one (CP<sub>2</sub>) accommodates the relative complementizers like *that* (for the function of the higher CP<sub>1</sub> see below). Above the CPs comes the DP and then the other projections listed in 8. What is interesting in this model is that the head of the relative expression is the whole portion of tree immediately below the insertion point of the RC, let's call it *dP*<sub>1</sub> or *External Head*. It is not restricted to the sole NP, but it optionally includes NumP and APs (in 10 it is *two nice books*). This entire portion also occurs inside the RC as an argument or circumstantial of the IP, let's call it *dP*<sub>2</sub> or *Internal Head*.

Assuming 10 as a prototypical configuration of an extended projection of NP, the several word order found cross-linguistically are derived by applying a Head Raising Analysis or a Matching Analysis depending on cases.

Raising analysis for externally headed *postnominal* RCs:

the internal head  $dp_2$  raises to  $SpecCP_2$ , from where it deletes the c-commanded copy  $dp_1$ . Since the overt head is the RC-internal one, we expect reconstruction effects (like in *the headway that he made is impressive*).

12)

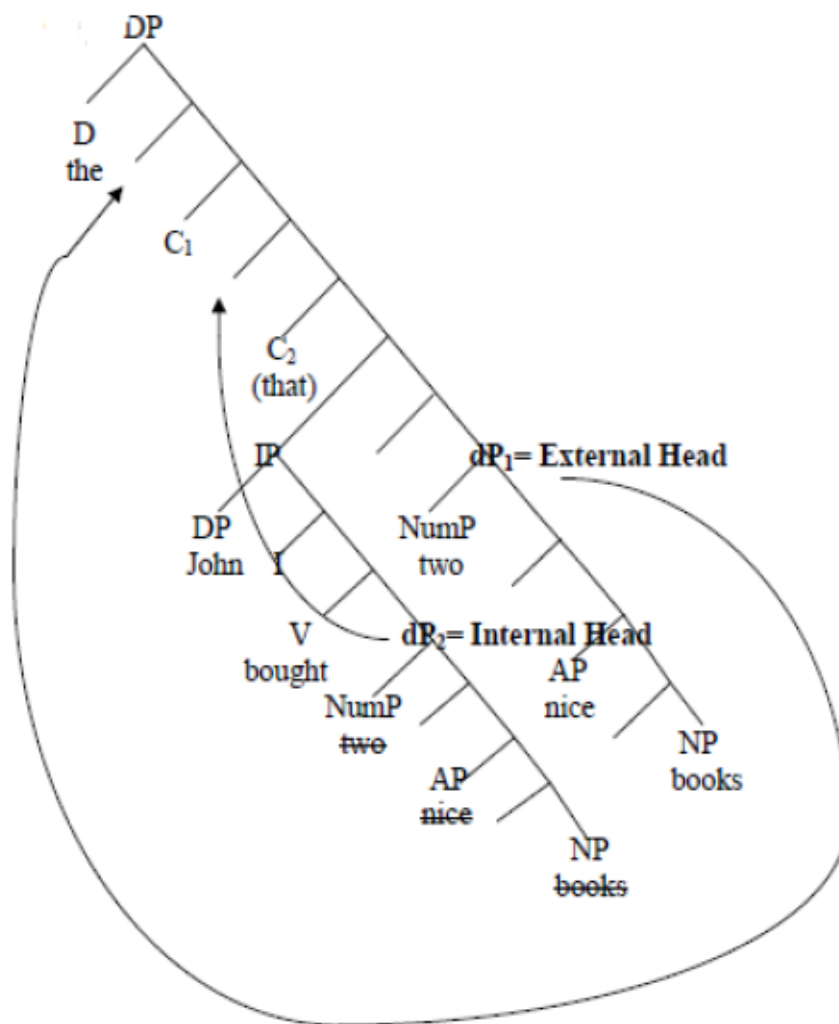


Matching analysis for externally headed *postnominal* RCs:

the External Head  $dp_1$  raises to  $SpecCP_1$  becoming the overt head. Reconstruction effects are not expected, since the overt head is not in a

chain with an element internal to the RC. Some languages show evidence for an additional raising of the Internal Head  $dP_2$  for reasons of island effects; if  $dP_2$  moves, Bulgarian offers evidence that it reaches a position (SpecCP<sub>2</sub>) lower than that to which the External Head raises (SpecCP<sub>1</sub>), because a RC obtained by Matching derivation can have a topic or focus constituent between the raised head and the clause, which is impossible when a Raising derivation is forced. For details, see Krapova 2010. In both cases, the Internal Head  $dP_2$  is deleted because it comes to be c-commanded by the raised External Head ( $dP_1$ ).

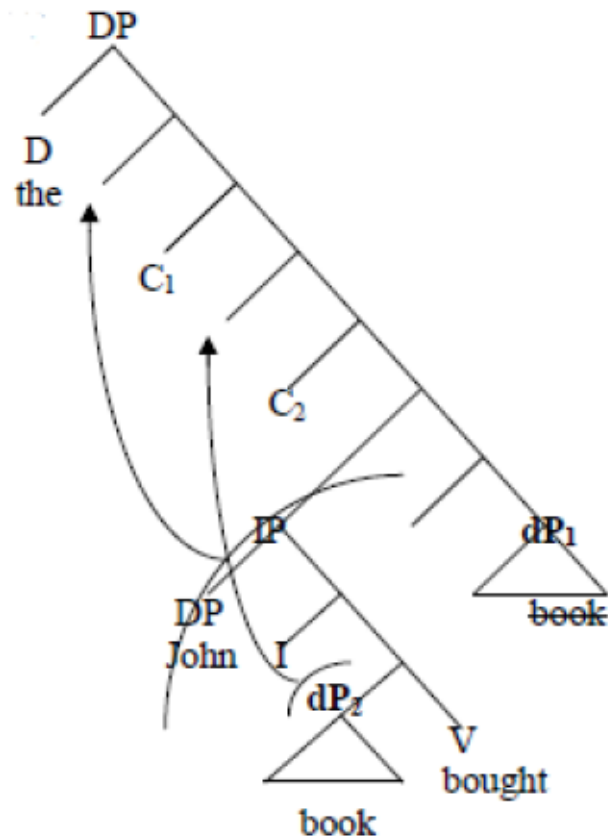
13)



Raising analysis for externally headed *prenominal* RCs:

the Internal Head  $dP_2$  moves to  $SpecCP_2$  and deletes  $dP_1$ , then the remnant of the IP raises over the head (maybe in  $SpecCP_1$ ). Reconstruction and island effects are expected.

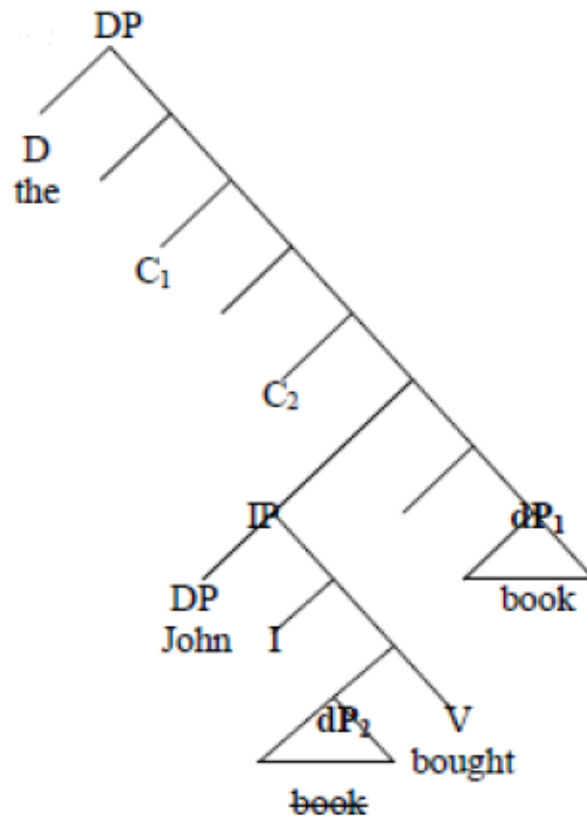
14)



Matching analysis for externally headed *prenominal* RCs:

the External Head directly deletes the Internal Head backward. No reconstruction effects are expected.

15)



In chapter 1.2.2 I said that I will not include an analysis of Head-internal relative clauses in this work, but for the sake of information I report that the derivation of a HIRC is most likely obtained by forward deletion of the External Head from the Internal one in a Matching configuration. There could be a Raising analysis too, but for that see Cinque 2008a, 2010b.

For the aims of this dissertation the analysis of the derivation of other types of RCs is not relevant. For further details and discussion, I refer to the original works mentioned earlier. In the next chapter I collect data regarding some characteristics of Japanese that will help us understand the derivation of Japanese RCs, an issue that I will address in chapter 4 within the general model depicted above.



### 3. Features of Japanese Relative Clauses

In this chapter I show some data, collected from Japanese informants, in order to point out the syntactic differences between the types of Japanese Relative Clauses introduced in section 1.2. In particular, I focus on the following topics: the position of the RC with respect to other elements of the main sentence like quantifiers, adjectives, determiners and other RCs; the distribution of the head, that is which argumental or circumstantial position occupies originally the relativized head inside the RC; cases of Island Violation; the presence of Reconstruction Effects and Resumptive Pronouns; the possibility of the *ga/no* conversion in the marking of the RC's subject; the presence of different Modalities and the presence of Topic inside the RC.

#### 3.1 Position of the Relative Clause

In this section I investigate the position that a RC occupies in front of the head-noun with respect to other elements. As reported in chapter 2, according to Cinque's model a RC is one of several modifiers of an NP that originate in front of it, like adjectives, numerals, quantifiers and demonstratives. In particular, the hierarchy proposed by Cinque is reported in 1:

- 1) NRRC>Q<sub>all</sub>>Dem>RRC>Num>RedRC>A>N

(All elements are intended as extended projections and not as bare heads). Let's first examine the basic word order of Demonstratives, Numerals, Adjectives and Nouns in Japanese. According to the tests,

four orders appear to be fully admissible without generating differences in meaning. The orders are:

- a) Dem Num A N
- b) Dem A Num N
- c) A Dem Num N
- d) Num Dem A N

Order a) corresponds to the sentence in 2, the other orders are derived by permutation of the three items under examination:

- 2) [kono] [san-biki no]<sup>1</sup> [kawaii] koneko wa kinō umareta  
this 3-cl GEN cute kittens TOP yesterday born.PAST  
“These three cute kittens were born yesterday”

The orders e-f are less acceptable, but still non impossible for some informants:

- e) A Num Dem N
- f) Num A Dem N

---

1 Numerals in Japanese are made by a sortal classifier, that is a bound morpheme that merges with a number. As a modifier of the noun, it precedes it and is followed by the genitive particle *no* like an apposition or a possessive. When the noun bears a role of subject or direct object in the sentence though, the most natural position for the numeral is after the noun without the genitive particle:

- a) hon o san-satu katta  
book ACC 3-cl buy.PAST  
“(I) bought three books”

The same position properties hold for lexical quantifiers too, like *hotondo* 'most' and *subete* 'all'.

I must observe that orders b-f should not be admissible according to Cinque 2005 (pp. 319-320), but the tests reveal a strongly consistent judgment of grammaticality, at least for b-c-d. Some problems arise when the demonstrative is close to the noun and other modifiers are in the NP.

Now let's see what happens when a RC enters the phrase. Since it is difficult for a Japanese to process a long phrase with many elements, I tested single combinations of the items I'm examining. I point out schematically the acceptable orders; orders different from these have been judged wrong or highly questionable.

RC>Dem 3) otita kono happa de kazariduke o tukurō  
fell.PAST this leaf INS decoration ACC prepare.VOL

Dem>RC 4) kono otita happa de kazariduke o tukurō  
this fell.PAST leaf INS decoration ACC prepare.VOL  
“Let's prepare a soup with these cropped vegetables”

RC>Q<sup>2</sup> 5) syuppatu sita subete no gakusei kara renraku ga kita  
leave.PAST all GEN student from message come.PAST  
“A message came from all the students that have leaved”

But, interestingly, an indefinite quantifier comes before the RC:

6) nanika [mitai] mono wa arimasu ka  
some want.see thing TOP there.is ?  
“Is there something that you want to see?”

RC>Dem>Q 7) otita kono subete no happa de  
fell.PAST this all GEN leaf INS

---

<sup>2</sup> According to my tests, the reverse order (Q>RC) is not totally out, but much more questionable.

kazarituke o tukurō  
decoration ACC prepare.VOL  
“Let's create a decoration with all these fallen leaves”

- RC>A 8) otita akai happa o subete totta  
fell.PAST red leaf ACC all pick up.PAST  
“I picked up all the red fallen leaves”
- RC>Num 9) otita go-mai no happa o subete totta  
fell.PAST 5-cl GEN leaf ACC all pick up.PAST
- Num>RC 10) go-mai no otita happa o subete totta  
5-cl GEN fell.PAST leaf ACC all pick up.PAST  
“I picked up all the five fallen leaves”
- RC>Num>A 11) kinō umareta sanbiki no kawaii koneko wa  
yesterday born.PAST 3-cl GEN cute kitten TOP  
kuroi desu  
are black.POL
- RC>A>Num 12) kinō umareta kawaii sanbiki no koneko wa  
yesterday born.PAST cute 3-cl GEN kitten TOP  
kuroi desu  
are black.POL
- Num>RC>A 13) sanbiki no kinō umareta kawaii koneko wa  
3-cl GEN yesterday born.PAST cute kitten TOP  
kuroi desu  
are black.POL  
“The three cute kittens that born yesterday are black”

As for the position of quantifiers, Kameshima 1989 claims that when a RC precedes the quantifier, the interpretation is ambiguous between restrictive and nonrestrictive, while only a restrictive reading is possible if the quantifier precedes the clause:<sup>3</sup>

14a) [kodomo o motu] hotondo no zyosei wa nanraka no  
child ACC have most GEN women TOP some kinds of  
mondai o kakaete iru  
problem ACC have  
“Most women(,) who have a child(,) have some kinds of  
problems”

14b) hotondo no [kodomo o motu] zyosei wa nanraka no  
most GEN child ACC have women TOP some kinds of  
mondai o kakaete iru  
problem ACC have  
“Most women who have a child have some kinds of  
problems”

(Kameshima 1989: 209)

According to Kameshima, the same pattern holds for other quantifiers like *subete* 'all', *ooku no* 'many', and numerals. The same judgment pattern has been reported by Ishizuka 2008 about the mutual position of RC and demonstratives: RCs outside a demonstrative are ambiguous, while inside a demonstrative they are only restrictive (pp. 4-6).<sup>4</sup>

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<sup>3</sup> See footnote 2.

<sup>4</sup> I must admit that there is a huge variability in my informants' judgments (the same problem is recognized also by Ishizuka). For instance, I had a sequence Dem>RC with the RC interpreted as nonrestrictive by most of the native speakers:

a) ano [saikin ninki ga aru] zyoyū wa konban no bangumi ni deru  
that recently is popular actress TOP tonight GEN program DAT take part  
“That actress, who has recently become popular, will take part in tonight's  
program”

### 3.1.1 Mutual order between two RCs

A RC can precede or follow another RC, too. In such a case, if both the clauses are restrictive or nonrestrictive, their mutual order is free, provided that they are of the same semantic type in the sense of Larson-Takahashi 2007 (Stage- or Individual-level). The two authors point out a contrast between a clause with a Stage-level interpretation and one with an Individual-level interpretation: when two RCs of different types co-occur, the one with the Stage-level interpretation must precede the other:

(Individual-level)

- 15a) [Tabako o suu] [sake o nomu] hito wa  
[tobacco ACC inhale][sake ACC drink] person TOP  
Tanaka san desu  
Tanaka COP.POL  
“The person who drinks sake who smokes is Miss Tanaka”

- 15b) [Sake-o nomu] [tabako-o suu] hito-wa Tanaka-san desu

(Stage-level)

- 16a) [Watasi ga kinō atta] [sake o nonde ita] hito wa  
I NOM yesterday met sake ACC drinking] person TOP  
Tanaka san desu  
Tanaka COP.POL  
“The person who was drinking sake who I met yesterday is  
Miss Tanaka”
- 16b) [Sake-o nonde ita][watasi-ga kinō atta] hito-wa Tanaka-san  
desu

(Both)

17a) [Watasi ga kinō atta] [tabako o suu] hito wa  
I NOM yesterday met tobacco ACC inhale] person TOP  
Tanaka san desu  
Tanaka COP.POL  
“The person who smokes who I met yesterday is Miss  
Tanaka”

17b) ?\*[Tabako o suu][watasi ga kinō atta] hito-wa Tanaka-san  
desu.

(Larson-Takahashi 2007: 102)

On the other hand, when a restrictive and a nonrestrictive RCs co-occur, Kameshima claims that the order is NRRC>RRC:

(supposing that two groups, from America and from Sweden, both of whom plan to go sightseeing Kyoto tomorrow, made a reservation in a hotel)

18a) [Asita Kyoto o kenbutu suru koto ni natte iru] [Amerika  
tomorrow ACC sightseen do are supposed to  
kara kita dantai ga ima basu de tuita  
from come.PAST group NOM now bus INS arrive.PAST  
“The group that came from America, who planned to go  
sightseen Kyoto tomorrow, now arrived by bus”

18b) ?[Amerika kara kita] [asita Kyoto o kenbutu suru koto ni  
natte iru] dantai ga ima basu de tuita

(Kameshima 1989: 234)

This judgment is shared by my informants, but it is worth noting, though, that for Ishizuka 2008 and many of her informants the most

natural order is 17b, that means that the mutual order under observation would be RRC>NRRC (Ishizuka 2008: 13).

I investigated what happens if one (or both) of the RCs is a *to iu* type. In some cases the order seems free, in other there is a tendency for the *to iu* type to come first:

19a) [Kaigai de seikatu suru to iu] [watasi ga kyonen sita]  
abroad LOC live to iu I NOM last year do.PAST  
keiken wa dare ni totte mo kityōna mono ni  
experience TOP for everyone precious thing DAT  
naru darō  
become must

“The experience to live abroad that I made last year will surely become a precious thing for everyone”

19b) [Watasi ga kyonen sita] [kaigai de seikatu suru to iu] keiken  
wa dare ni totte mo kityōna mono ni naru darō

20a) [ Konbini de gōtōziken ga fuete kita  
convenience store LOC case of robbery NOM increase.PAST  
to iu] [keisatu ga dasita] tūti wa hontō desu ka  
to iu police NOM give.PAST notice TOP true COP Q  
“Is it true the notice that the police delivered that the cases of robbery in the convenience stores have increased?”

20b) ?[Keisatu ga dasita] [Konbini de gōtōziken ga fuete kita to  
iu] tūti wa hontō desu ka

The apposition of two RCs is impossible if one of them is of the *to no* type; the only way to have it is to leave the *to no* clause close to the head-noun, to which it must be strongly tied, but the judgment of grammaticality is not shared by many informants:



- 21) (?) [Tanaka san ga itta] [Hanako ga kikoku sita  
 NOM say.PAST NOM return.PAST  
 to no] koto o sitte imasu ka  
 to no fact ACC know.POL Q  
 “Do you know the fact that Mr. Tanaka reported that  
 Hanako has returned to her country?”

Finally, when two clauses of the *to iu* type co-occur, the first one loses the complementizer *to iu*, which appears only at the end of the second clause:

- 22) [Kare mo tuite kuru], katu [buki o motte wa ikenai  
 he too come together and weapon ACC must not bring  
 to iu] zyōken o nonda  
 to iu condition ACC accept.PAST  
 “I accepted the conditions that he comes with us and that  
 it's not allowed to bring weapons”

As for the mutual order between a gapped and a gapless clause, the example in 22 reveals the superficial order gapped>gapless>A>N:

- 23) [Kittin kara \_\_ tadayou] [sakana no yakeru]  
 kitchen from waft.NPAST fish GEN<sup>5</sup> burn.NPAST  
 kyōretuna nioi  
 strong smell  
 “The strong smell of a fish burning that wafts from the  
 kitchen”

We will see in chapter 4 how these mutual orders between RCs of different types fit in the cartography of the extended NP.

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<sup>5</sup> For the genitive marking of the relative subject, see section 3.6.

## 3.2 Accessibility

In this section I examine which argumental or circumstantial position might the relativized head occupy inside the RC. In other words, the question is the following: can every type of constituent become the head of a RC? And what type of RC does it generate? This second question is about the choice between restrictive and nonrestrictive gapped RCs, gapless relatives do not enter this topic since their head does not come from inside the clause. A great part of this effort was made by Inoue 1976 and Nitta 2008, from where I report below a schematic list of (non) relativizable constituents (between brackets is the postposition that marks the constituent).

### *Relativizable*

Subject -agent, theme or experiencer- (*ga/ni* in some cases of experiencer); direct object of stative predicates (*ga*); direct object (*o*); indirect object and various instances of dative (*ni*); goal (*ni/e*); punctual time (*ni/Ø*); causee (*ni*); locative (*de/ni* with the predicates of existence *aru/iru*); necessary partner (*to*)<sup>6</sup>; terms for comparison (*to*)<sup>7</sup>; means, ways and instrument (*de*); point of view (*kara*)<sup>8</sup>.

### *Hardly relativizable*

Purpose of a movement (*ni*)<sup>9</sup>; optional partner (*to*)<sup>10</sup>; cause, reason, evidence (*de*); limit (*de*); origin of a movement (*kara*)<sup>11</sup>.

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6 John *ga* Mary *to* *kekkon* *sita* > John *ga* *kekkon* *sita* *Mary*, (lit.) 'Mary, with whom John married'.

7 John *to* *syumi* *ga* *tigau* > *Syumi* *ga* *tigau* *John*, 'John, whom my interests differ from'.

8 Kono heya *kara* *Fuzisan* *ga* *mieru* > *Fuzisan* *ga* *mieru* *heya*, 'A room from which Mt.Fuji is visible'.

9 *Sūpā* *e* *kaimono* *ni* *iku* > ?*Sūpā* *e* *iku* *kaimono*, (lit.) 'The shopping I go to the supermarket for'.

10 John *ga* *Mary* *to* *syokuji* *sita* > ?John *ga* *syokuji* *sita* *Mary*, 'Mary, with whom John had lunch'.

11 John *ga* *kūkō* *kara* *Yoroppa* *e* *tabidatta* > ?John *ga* *Yoroppa* *e* *tabidatta* *kūkō*, 'The airport from where John started off to Europe'.

*Non relativizable*

Proportion (*ni*)<sup>12</sup>; passive agent (*ni*)<sup>13</sup>; quote (*to*)<sup>14</sup>; content of means (*de*)<sup>15</sup>; condition (*de*)<sup>16</sup>; direction (*e*)<sup>17</sup>.

Without seeing examples in detail, it is clear that every relativizable constituent can form either a restrictive and a nonrestrictive RC, depending on the independently referential (or not) head, except for two cases. First, temporal expressions are marked by the particle *ni* only in case of a specific hour or date, but since it is specific the output can only be a NRRC:

- 24) Mary ga kekkon suru gogatu mikka wa saizitu desu  
NOM marry.NPAST may the 3<sup>rd</sup> TOP holiday COP.POL  
"The 3<sup>rd</sup> of may, when Mary will marry, is a holiday"

Second, expressions of cause, reason, evidence and limit, marked by the particle *de*, can form grammatical RCs only if the head is a very generic term, so that the result is a restrictive clause:

- 25) Kanban ga taoreta {?kaze/gen'in}  
sign NOM fall.PAST wind/cause  
“(\*The wind)/The cause for which the sign fell”

---

12 Issyūkan ni yokka hataraku > \*Yokka hataraku issyūkan, (lit.) 'A week I work four days in'.

13 Mary ga John ni nagurareta > \*Mary ga nagurareta John, 'John, by whom Mary was hit'.

14 Tanaka san o sin'yū to yoberu > \*Tanaka san o yoberu sin'yū, (lit.) 'A close friend, that I can call Mr. Tanaka'.

15 Heya ga hito de ippai ni natta > \*Heya ga ippai ni natta hito, 'People, of whom the room became full'.

16 Hadasi de sibafu o aruku > \*Sibafu o aruku hadasi, (lit.) 'Bare feet, I walk on the grass with'.

17 John ga kōen e dekaketa > \*John ga dekaketa kōen, (lit.) 'The park in the direction of which John went out'.

- 26) Siken o kesseki sita {\*kyūbyō/riyū}  
 exam ACC be absent.PAST sudden sickness/reason  
 “(\*The sudden sickness)/The reason because of which I  
 didn't take the exam”
- 27) Ōbo o simekiru {?sanzyūnin/ninzū}  
 application ACC close.NPAST 30 people/number of people  
 (?The 30 people)/The number of people which we close the  
 application up to”

(Nitta 2008: 56-57)

### 3.2.1 Genitives and Topics

As for genitives, they are relativizable, both in a restrictive and a nonrestrictive way, if they express a relation of possession or belonging, or a nominal expression's subject or object:

- 28) [*hito no*] kami ga nagai hito  
 hair NOM long.is person  
 “A person whose hair is long”
- 29) [*titi no*] kitaku ga okurete iru titi  
 return NOM is late my father  
 “My father, whose return is late”
- 30) [*sono yasai no*] saibai ga muzukasii yasai  
 cultivation NOM difficult.is vegetable  
 “A vegetable whose cultivation is difficult”

(Nitta 2008: 58)

On the other hand, relativization is impossible in case of an apposition, which is realized as a genitive in Japanese:

31a) Yūzin no Suzuki ga denwa o kakete kita  
 friend GEN NOM phone call ACC make.me.PAST  
 “Suzuki, (who is) a friend, called me”

31b) \*[Suzuki ga denwa o kakete kita] yūzin  
 NOM phone call ACC make.me.PAST friend

(ib.)

Nitta claims that a genitive that indicates a content is not relativizable too, but I suggest that it becomes more acceptable if a nonrestrictive interpretation is forced: 32b is questionable but not entirely wrong

32a) ?\*[Daietto no] hon ga yoku urete iru daietto  
 book NOM well is sold diet

32b) (?) Hon ga yoku urete iru Dukan daietto wa, ninki ga aru to  
 iu koto desu ne  
 “The Dukan diet, whose books are being sold well, seems to  
 be very popular, isn't it?”

Constituents marked by the particle *wa* are generally labeled as topics, but actually there are several types of topics. The traditional distinction dates back to Kuno 1973 and differentiates the theme of the sentence (Thematic *wa*) from the mark of a contrast (Contrastive *wa*).<sup>18</sup> In Franco 2009 I demonstrated that the position of the topics in Japanese are higher than those of focus, and that the Thematic *wa* is higher than the Contrastive *wa*. The distinction that I'm interested in now, though, regards the origin of the constituent marked by *wa*. They

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18 For example:

a) *John wa hon o yonda ga, Mary wa yomanakatta*  
 TOP book ACC read.PAST but TOP read.NEG.PAST  
 “John read the book, but Mary didn't read it”

usually are constituents of the thematic structure of the sentence (argumental or circumstantial) “promoted” to the status of topic, which confers a discourse-level positioning to the element. The “promotion” occurs by movement, indeed no resumptive pronoun can occupy the position of the trace:

- 33) \*John<sub>a</sub> wa, Mary ga kare<sub>a</sub> o butta  
 TOP NOM he ACC hit.PAST  
 Lit. “John, Mary hit him”

But there seems to be also base-generated topics that do not come from any other argumental or circumstantial position.<sup>19</sup> Mikami 1960 brought to light the question with an example like 34:

- 34) Sinbun o yomitai hito wa, koko ni arimasu  
 newspaper ACC read.want people TOP here LOC exist  
 “Speaking of those who want to read newspapers, they  
 (=newspapers) are here”  
 (from Kuno 1973: 253)

*Wa* in 34 sounds to me more like a vocative, but Kuno gives other interesting examples:

- 35a) Ano kodomo wa (zibun no) gakkō no sensei ga  
 that child TOP self GEN school GEN teacher NOM  
 kōtū-ziko de sinda  
 accident INS die.PAST  
 “That child, a teacher of (him's) school died in a traffic  
 incident”

---

19 From Kuno 1973: 250: “There are thematic sentences for which there are no corresponding themeless sentences”.

- 36a) America wa California ni itta  
                   TOP                  DAT go.PAST  
 “Speaking of America, I went to California”
- 37a) Buturigaku wa, syūsyoku ga taihen da  
           physics TOP finding employment NOM difficult COP  
 “Speaking of physics, finding jobs is very difficult”
- 38a) Sakana wa tai ga ii  
           fish TOP red-snapper NOM is good  
 “Speaking of fish, bream is good”

35a reveals that the topic is not moved from somewhere because a resumptive pronoun can optionally be inserted. Are these base-generated topics relativizable? It depends on a number of factors. To see this, a further classification of these topics is needed. See the following:

- 35b) Ano kodomo no gakkō no sensei ga kōtū-ziko de sinda  
 35c) [(zibun no) gakkō no sensei ga kōtū-ziko de sinda] ano  
       kodomo
- 36b) America no California ni itta  
 36c) [California ni itta] America
- 37b) \*?Buturigaku no syūsyoku ga taihen da  
 37c) [Syūsyoku ga taihen na] buturigaku
- 38b) ?Sakana no tai ga ii  
 38c) \*[Tai ga ii] sakana

In 35-38b *wa* has been substituted by the genitive particle *no* and 35-38c are the relative clauses with the topic (or genitive) as head. Let's





- 40a) Sōridaizin no Ikeda si ga sinda  
 Prime-minister GEN mr. NOM die.PAST  
 “Mr. Ikeda, the Prime Minister, died”
- 40b) \*Sōridaizin wa, Ikeda si ga sinda
- 40c) \*[Ikeda si ga sinda] sōridaizin

In this case both the topic-*wa* version and the relative expression are totally wrong. What differs from 38 may be the fact that in 40 the apposition *sōridaizin* 'Prime Minister' is non divisible and the following NP, *Ikeda-si* 'Mr. Ikeda', is highly specific, while in 38 *sakana* 'fish' is divisible, and *tai* 'bream' is not very specific, although it refers to the general concept of a species of fish and thus shared in the common knowledge of everyone. So an apposition on a specific NP (40) cannot be topicalized nor relativized, while an apposition on a non-specific NP (38) can be topicalized but not relativized.<sup>20</sup>

Let's recap this last matter. I have analyzed some instances of base-generated topics in order to establish if they are relativizable constituents or not. I noted that in every case there is a -more or less-tight connection with a correspondent structure with the genitive

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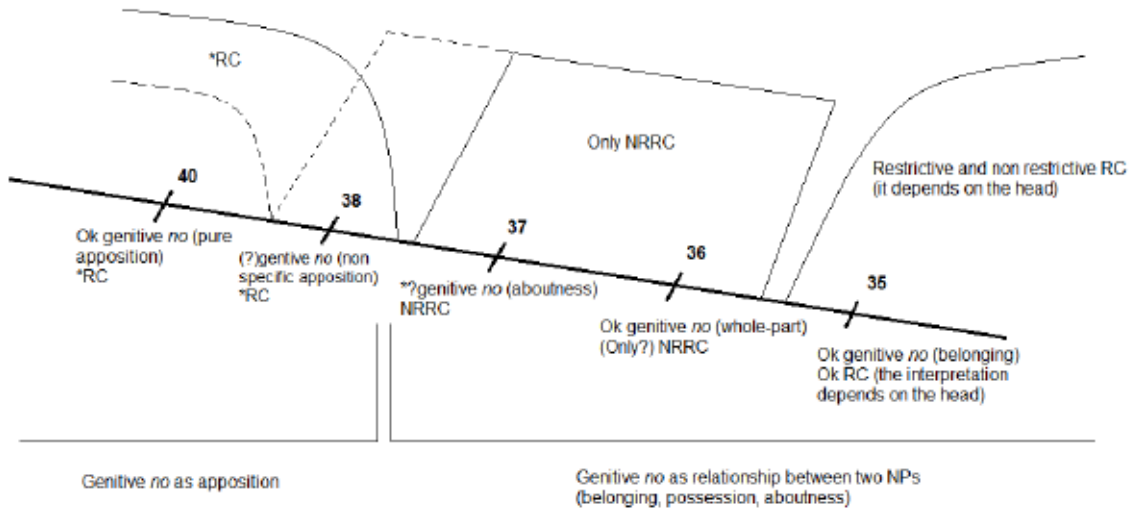
20 I could have almost no sentence of the same kind as 38c judged grammatical by my informants, but I am persuaded that if it were acceptable, it would receive only a nonrestrictive interpretation, since it is in the nature of an apposition to be -exactly-nonrestrictive. An interesting example in this case was suggested to me by Aiko Otuka:

- a) furoagari wa biiru ga umai  
 after a bath TOP beer NOM delicious.is  
 “(in the moments) after a bath the beer tastes delicious”
- b) biiru ga umai furoagari  
 “(The moments) after a bath, when the beer tastes delicious”

I believe we can transform the topic into a genitive (or maybe the contrary), obtaining *furoagari no biiru*, literally 'the beer of the act of raising from the bath'. The relation between *furoagari* and the beer is a generic aboutness relation, which is at the base of the connection between a topic and its comment as like as a NP and its genitive specification. Although b) is just a nominal expression, I see no interpretation but the nonrestrictive one.

particle *no* in place of the topic particle *wa*. Not every type of topic can be relativized, but among those that can, some types seem to give as output only nonrestrictive RCs. Now, we can put all these kinds of topics along a continuous line of properties:

41)



### 3.3 Island violations

For a long time Japanese has been assumed to allow island violations in cases of long distance relativization, and this became an argument to claim that Japanese RCs are not derived by movement of the head (see Murasugi 2000 among others). The most notorious example of island violation was the expression in 40 (Kuno 1973: 239):

- 42) [[  $\alpha$   $\beta$  kite iru] yōfuku $\beta$  ga yogorete iru] sinsi $\alpha$   
 is wearing suit NOM is dirty gentleman  
 “The gentlemen who the suit that (he) is wearing is dirty”

At a later stage it was proposed that what is relativized in 42 is not the subject of the most embedded RC, but a more external topic called

'Major Subject', paired with a *pro* (or sometimes a resumptive pronoun) in the place of the coindexed subject:

- 43) (sono) *sinsi*<sub>α</sub> wa [*pro*/(?)*kare*<sub>α</sub> ga *\_\_*<sub>β</sub> *kite iru*] *yōfuku*<sub>β</sub> ga  
 that gentleman TOP he NOM is wearing suit NOM  
*yogorete iru*  
 is dirty  
 "As for (that) gentleman, the suit that he is wearing is dirty"

Such a case is no more an instance of long distance relativization, and the possibility of a derivation by movement proves valid again. Although the constituent that forms the Major Subject is related to the thematic structure of the clause, it presents at least one characteristic that suggests that it isn't derived by movement: compare 44 and 45 (taken from Hoji 1985):

- 44) *Pekin*<sub>β</sub> wa *John* ga [*\_\_*<sub>α</sub> *\_\_*<sub>β</sub> *yoku sitte iru*] *hito*<sub>α</sub> o  
 Beijing TOP NOM well know person ACC  
*sagasite iru*  
 is searching  
 Lit. "Beijing, John is looking for a person that knows (it) well"
- 45) \**Pekin*<sub>β</sub> ni wa *John* ga [*\_\_*<sub>α</sub> *\_\_*<sub>β</sub> *nandomo itta*] *hito*<sub>α</sub> o  
 Beijing to TOP NOM often go.PAST person ACC  
*sagasite iru*  
 is searching  
 Lit. "To Beijing, John is looking for a person that went (there) often"

A topicalized PP like that in 45 cannot cross an island, but a topicalized object like that in 44 (and the subject in 43) can, meaning that a topic

on a subject or object has a peculiar status, at least in cases of islands. Nonetheless, if we consider this Major Subject as base-generated, it is not easy to fill the coindexed place in the clause with a resumptive pronoun:

- 46) ??Tanaka san<sub>a</sub> wa [kare<sub>a</sub> ga Tarō o korosita] to iu  
TOP he NOM ACC kill.PAST *to iu*  
uwasa ga hirogatta  
rumor NOM spread.PAST  
Lit. “Mr. Tanaka, the rumor that he killed Taro has spread”
- 47) ?\*Tanaka san<sub>a</sub> wa [Tarō ga kare<sub>a</sub> o korosita] to iu  
TOP NOM he ACC kill.PAST *to iu*  
uwasa ga hirogatta  
rumor NOM spread.PAST  
Lit. “Mr. Tanaka, the rumor that Taro killed him has spread”

Note that a resumptive pronoun on a subject seems not to be as weird as the one on an object.

I examined in better detail the issue of long distance relativization searching for peculiarities and differences between different cases. I observed three levels of asymmetries: between subject and direct object, restrictive and nonrestrictive clauses, and gapped and gapless relatives. Starting from this last point, let's see first the case of a long distance relativization through two gapped RCs. 48a-b are instances of subject extraction, while 49a-b are instances of object extraction:

- 48a) [[ \_\_<sub>a</sub> \_\_<sub>β</sub> katte ita] inu<sub>β</sub> ga sinde simatta]  
own.PAST dog NOM unfortunately.die.PAST  
kodomo<sub>a</sub> ga naite iru  
kid NOM is crying

“The child who the dog he owned unfortunately died is crying”

48b) [[ \_\_<sub>α</sub> \_\_<sub>β</sub> katte ita] inu<sub>β</sub> ga sinde simatta] Tarō<sub>α</sub> ga naite iru  
“Taro, who the dog he owned unfortunately died, is crying”

49a) \*[[ \_\_<sub>α</sub> \_\_<sub>β</sub> kite iru] hito<sub>α</sub> ga sakki koko ni ita]  
is.wearing man NOM before here LOC was  
sūtu<sub>β</sub> wa Armani desu  
suit TOP COP  
Lit. “The suit that the man who is wearing it was here some  
time ago, is an Armani”

49b) ?[[ \_\_<sub>α</sub> \_\_<sub>β</sub> sodateta] hahaoya<sub>α</sub> ga sinde simatta] Tarō<sub>β</sub> wa  
raise.PAST mother NOM unfortunately died TOP  
fukaku ochikonde iru  
deeply is depressed  
Lit. “Taro, who the mother that raised him unfortunately  
died, is deeply depressed”

48-49a are restrictive sentences, and 48-49b are nonrestrictive. The long extraction of a subject is possible in both cases, but the extraction of an object is totally wrong in case of a restrictive RC, while it appears slightly more acceptable in case of nonrestrictive RC.<sup>21</sup> Thus, there is an asymmetry between subject and object, and between restrictive and nonrestrictive clauses.<sup>22 23</sup> I guess that it is a clue in favour of the Major

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21 I made a test on subject extraction with a different sentence, and the judgment was perfectly grammatical for the nonrestrictive version, but questionable for the restrictive one; the judgment was a bit unsure, so I didn't reported those sentences, but it may be a difference between restrictives and nonrestrictives also in case of subject extraction.

22 The restriction on subject for the long-distance relativization was first observed by Inoue 1976 and then Hasegawa 1981.

23 Murasugi 1991 highlights another asymmetry on long distance relativization between what she calls *quasi-adjuncts* (PPs of time and place) and *true adjuncts* (PPs of

Subject theory: the (apparently) long-distantly relativized element is a topic co-indexed with a pro in the subject position of the inner relative. As (base generated) topic, it is a desirable coincidence that it has a genitive relation with the comment associated to it, which is the head of the outer relative. See 50a-b, that are derived from 48a (but the same holds if it is derived by the nonrestrictive 48b).

50a) (ano) kodomo wa [ pro<sub>α</sub> \_\_\_<sub>β</sub> katte ita] inu<sub>β</sub> ga  
 that child TOP own.PAST dog NOM  
 sinde simatta  
 unfortunately.die.PAST  
 “Speaking of that child, the dog that he owned  
 unfortunately died”

50b) (ano) kodomo no inu<sub>β</sub> ga sinde simatta  
 that child GEN dog NOM unfortunately.die.PAST  
 “The dog that child unfortunately died”

The possessive relation between the Major Subject and its comment, and the alleged tendency to form nonrestrictive sentences when

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reason and manner), claiming that the former can undergo long distance relativization, while the latter cannot:

- a) [[ \_\_\_<sub>α</sub> \_\_\_<sub>β</sub> mensetu o uketa] gakusei<sub>α</sub> ga minna ukaru] hi/kaigisitu<sub>β</sub>  
 interview ACC took student NOM all pass day/conference room  
 Lit. “The day when/the conference room where the students that had the  
 interview, all passed”
- b) \*[[ \_\_\_<sub>α</sub> \_\_\_<sub>β</sub> kubi ni natta] hito<sub>α</sub> ga minna okotteiru] riyū<sub>β</sub>  
 was fired person NOM all are angry reason  
 Lit. “The reason because of which the people who were fired (because of that  
 reason) are all  
 angry”
- c) \*[[ \_\_\_<sub>α</sub> \_\_\_<sub>β</sub> mondai o toita] gakusei<sub>α</sub> ga siken ni otiru] hōhō<sub>β</sub>  
 problem ACC solved student NOM exam DAT fail way  
 Lit. “The way in which the students that solved the problem (in that way) all  
 failed the exam”

(Murasugi 1991: 130)

relativized, make me guess that this Major Subject must be collocated between the points 35 and 36 in the diagram in 41.

Let's examine now the extraction of subject and object from a gapped clause embedded in a gapless clause. Compare 51a-b (restrictive and nonrestrictive extraction of a subject) and 52a-b (the same of an object):

51a) ?[[\_<sub>a</sub> Tarō o korosita] to iu uwasa ga hirogatta] hito<sub>a</sub> wa  
 ACC kill.PAST to iu rumor NOM spread man TOP  
 Tanaka san desu  
 COP

Lit. "The person that the rumor that he killed Taro has spread is Mr. Tanaka"

51b) [[ \_<sub>a</sub> Tarō o korosita] to iu uwasa ga hirogatta] Tanaka<sub>a</sub> wa  
 ACC kill.PAST to iu rumor NOM spread TOP  
 taiho sareta  
 arrest.PASS.PAST

Lit. "Tanaka, who the rumor that he killed Taro has spread, has been arrested"

52a) ?[[Tarō ga \_<sub>β</sub> korosita] to iu uwasa ga hirogatta] hito<sub>β</sub> wa  
 NOM kill.PAST to iu rumor NOM spread person TOP  
 Tanaka desu  
 COP

Lit. "The person who the rumor that Taro killed him has spread is Tanaka"

52b) [[Tarō ga \_<sub>β</sub> korosita] to iu uwasa ga hirogatta] Tanaka<sub>β</sub> wa  
 NOM kill.PAST to iu rumor NOM spread TOP  
 mada ikite iru  
 still is alive

Lit. “Tanaka, who the rumor that Taro killed him has spread, is still alive”

In this type of long distance relativization there are no asymmetries between subject and object, but it is clear that it is easier to get a nonrestrictive output than a restrictive one, a characteristic quite shared also by the long distance extraction from two gapped clauses.

### 3.4 Resumptive pronouns

If we suppose that a relative expression is derived by movement of an element from inside a clause to the outer position of head, we expect that the original position of that element is occupied by a trace and nothing else. On the contrary, if a resumptive pronoun can be detected in the original place of the head, we should presume that the derivation is obtained by direct insertion of the head coindexed with a *pro* in the clause, and that instead of that *pro* a resumptive pronoun can intervene. Several authors have dealt with this matter, so I first introduce their suggestions.

Inoue 1976 points out that resumptive pronouns are normally ungrammatical in short distance relativization (see 53), while they are acceptable in case of long distance relativization (54). However, resumptive pronouns can be inserted in instances of short distance relativization when it is difficult or impossible to recognize the role of the head inside the RC due to the fact that without the (pro)noun the postposition disappears (55-57).

- 53) [(*\*zibun/sono hito/kare<sub>a</sub>*) ga hon o kaita] gakusya<sub>a</sub>  
self/ that man/ he NOM book ACC write.PAST scholar  
Lit. “The scholar that he wrote a book”



- 54) [[zibun<sub>a</sub> ga \_\_\_<sub>β</sub> kaita] hon<sub>β</sub> ga syoten ni dete iru]  
 self NOM write.PAST book NOM bookshop LOC is.out  
 gakusya<sub>a</sub>  
 scholar  
 Lit. “The scholar that the book that he wrote is sold in the  
 bookshops”
- 55) [wareware ga kotosi mo sore<sub>a</sub> de  
 we NOM this year too that INS  
 gaman shinakereba naranai] kuni no hōjo<sub>a</sub>  
 must be satisfied nation GEN support  
 Lit. “The national aid which we must be contented with it  
 this year also”
- 56) [John ga sore<sub>a</sub> de gakkari sita] nyūsu<sub>a</sub>  
 NOM that INS was disappointed news  
 “The news by which John was disappointed”
- 57) [John ga sore<sub>a</sub> kara tyūmon o uketa] kaisya<sub>a</sub>  
 NOM that from order ACC received company  
 “The company from which John received an order”

(Inoue 1976: 172-173)

About 55-57, Kuno 1980 comments “although these expression have a slight literary flavor, I do not believe there is anything wrong with them” (p. 131).

Kosaka 1980 and Kuno 1980 discuss an interesting contrast:

- 58a) \*[watasi ga kare<sub>a</sub> o wasurete simatta] okyakusan<sub>a</sub>  
 I NOM he ACC forget.PAST guest  
 Lit. “The guest whom I have forgotten (him)”

- 58b) [watasi ga kare<sub>a</sub> no namae o wasurete simatta] okyakusan<sub>a</sub>  
 I NOM he GEN name ACC forget.PAST guest  
 “The guest whose name I have forgotten”

(Kosaka 1980: 120)

I have to note that Kuno's comment on 58b is “awkward, but not ungrammatical” (Kuno 1973: 237); it means that it is not usual, but still possible for Japanese to insert a resumptive pronoun if the head of the RC is a genitive.

Kameshima 1989 affirms that resumptive pronouns are ungrammatical if the gap to be filled is an argument position of a restrictive RC (see 62), while they seem slightly more acceptable in case of circumstantial positions (see 59-61):

- 59) ?[Mary ga sore<sub>a</sub> de ringo o kitta] naifu<sub>a</sub>  
 NOM that INS apple ACC cut.PAST knife  
 “The knife (with which) Mary cut the apple”

- 60) ?[John ga soko<sub>a</sub> de benkyō sita] tosyokan<sub>a</sub>  
 NOM there LOC study.PAST library  
 “The library where John studied”

- 61) ?[John ga sono hito<sub>a</sub> to benkyō sita] onna no hito<sub>a</sub>  
 NOM that person with study.PAST female GEN person  
 “The woman with whom John studied”

- cfr. 62) \*[[John ga sono hito<sub>a</sub> to kekkon sita] onna no hito<sub>a</sub>  
 NOM that person with marry.PAST female GEN person  
 “The woman (with whom) John married”

(Kameshima 1989: 79-80)

According to Kameshima, another asymmetry is established between restrictive and nonrestrictive RCs: “resumptive pronouns are perfectly grammatical in cases in which only a nonrestrictive reading is possible, while they are marginal in cases in which a restrictive reading is much stronger” (p. 87). See 63:

63a) [Mary ga sore<sub>a</sub> de ringo o kitta] John no naifu<sub>a</sub> ga  
 NOM that INS apple ACC cut.PAST GEN knife NOM  
 yuka ni otite iru  
 floor LOC has fallen  
 “John's knives, with which Mary cut an apple, has fallen on  
 the floor”

63b) ??[Mary ga sore<sub>a</sub> de ringo o kitta] naifu<sub>a</sub> wa  
 NOM that INS apple ACC cut.PAST knife TOP  
 dore desu ka  
 which one is Q  
 “Which one is the knife (with which) Mary cut an apple?”  
 (Kameshima 1989: 85-86)

Murasugi 1991 expresses a judgment about the presence of resumptive pronouns in cases of long distance relativization, and her claim is that it is marginal in every case, regardless if a subject (64) or quasi-adjunct (65) or true adjunct (66) is extracted (cfr. footnote 36):

64) ?[[kare<sub>a</sub> ga \_\_<sub>β</sub> kite iru] yōfuku<sub>β</sub> ga yogorete iru] sinsi  
 he NOM is wearing suit NOM is dirty gentlemen  
 Lit. “A gentleman who the suit that he is wearing is dirty”

65) ?[[\_\_<sub>a</sub> sono hi<sub>β</sub> ni/ soko<sub>β</sub> de mensetu o uketa]  
 that day DAT/there LOC interview ACC took

gakusei<sub>a</sub> ga minna ukaru] hi/kaigisitu<sub>β</sub>  
 student NOM all pass day/conference room  
 Lit. “The day when/the conference room where the students  
 that had the interview that day/there, all passed”

- 66) ?[[ \_\_<sub>a</sub> sore<sub>β</sub> de kubi ni natta] hito<sub>a</sub> ga minna  
 that because of was fired person NOM all  
 okotteiru] riyū<sub>β</sub>  
 are angry reason  
 Lit. “The reason because of which the people who were fired  
 because of that reason are all angry”

(Murasugi 1991: 135-136)

I think that it is not possible to draw a straightforward conclusion about the presence of resumptive pronouns on the basis of the observations of the authors seen above. The reason is mainly that the judgment on the sentences are not clear-cut, for example the same judgment with a question mark is considered in some cases as a degradation of the corresponding correct sentence, and in other cases as improvement from a completely ungrammatical sentence. Thus, I decided to run some tests on my own and come to a conclusion on the base of the average judgments of my several informants, because the opinion of a single speaker seems not to be reliable. I was interested in particular in searching for a correlation between the admissibility of resumptive pronouns in place of constituents different from subject and object, and the hierarchy of modifier PPs proposed in Takamine 2010. Takamine has analyzed the natural order of circumstantial PPs in Japanese, reaching the conclusion that they enter the following hierarchy (p. 94):

- 67) Temporal > Locative > Comitative > Reason > Source > Goal  
 > Instrument/Means > Material > Manner

Thus, I prepared some tests with paired examples of restrictive and nonrestrictive RCs with resumptive pronouns in the place of argumental and non argumental PPs, but I have to report that resumptive pronouns were never allowed by my informants, with a fairly consistent judgment of ungrammaticality.<sup>24</sup> The only two cases that were judged more questionable than wrong are instances of argumental locative PP with verbs of existence (68) and of circumstantial source PP (69), but no difference is detected regarding the (non) restrictivity of the RC:

68a) ?[soko<sub>a</sub> ni eakon ga sonaete aru]  
 there LOC air conditioner NOM is provided  
 hey<sub>a</sub> ga hosii  
 room ACC desire.NPAST  
 Lit. “I desire a room that there is provided the air conditioner”

68b) ?[soko<sub>a</sub> ni rotenburo ga tuite iru]  
 there LOC open air bath NOM is annexed  
 delux room<sub>a</sub> ga hizyōni takai rasii  
 NOM incredibly expansive it seems  
 Lit. “The delux room, where an open air bath is annexed there, seems to be extremely expansive”

69a) ?[soko<sub>a</sub> kara Fuzi-san ga yoku mieru]  
 there from Mt. Fuji NOM well be visible  
 hey<sub>a</sub> ga hosii  
 room ACC desire.NPAST

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24 The tests I prepared regard argumental goal, locative, comitative, material and various instances of dative PPs, and circumstantial instrument, source, comitative, reason, goal, manner, material and temporal PPs.

Lit. “I desire a room that from there the Mt. Fuji is well visible”

69b) ?[koko<sub>a</sub> kara Fuzi-san ga yoku mieru] kono  
here from Mt. Fuji NOM well be visible this  
delux room<sub>a</sub> ga suteki da  
NOM is wonderful

Lit. “This delux room, which from there the Mt. Fuji is well visible, is wonderful”

The judgment slightly improves in case of long distance extraction of Murasugi's quasi-adjunct (locative PP, see 65) and true adjunct (reason PP, see 66), but actually the judgments divide into two opposite groups: it is either correct or wrong, but not uniform, regardless if the RC is restrictive or nonrestrictive. Nonetheless, it is worth noting that Murasugi's quasi-adjuncts (temporal and locative PPs) correspond to the two highest positions of Takamine's hierarchy.

To recapitulate, on the base of my personal observations, I claim that Japanese RCs do not allow the use of resumptive pronouns in almost all cases, no matter if the clause is restrictive or not, if the head is argumental or circumstantial, or if it is high or low in Takamine's hierarchy (except allegedly for temporal and locative PPs, as noted above). The use of pronouns may be admitted in case of (apparent) long distance relativization. If I have to provide an explanation about the cases in which a resumptive pronoun is detected, I would say that it is an extra-support due to the difficulty of computing a long sentence or a sentence with -otherwise- few overt syntactical elements, but not a standard strategy of relativization.

### 3.5 Reconstruction effects

The presence of reconstruction effects is considered in Cinque's theory on RCs as a tool to determine if a RC is derived by movement, or with better words, if the overt head is the internal one,  $dP_2$  (raising derivation). I take into account two types of reconstruction effects, first those which show up between the parts of an idiom chunk, and then those between an antecedent and its anaphora.

#### 3.5.1 Idiom chunks

An example of reconstruction effect of an idiom chunk is 67 (from Brame 1968, in Cinque 2010b: 3); the original idiom is 'to make headway':

70) The headway<sub>a</sub> [that John made \_\_<sub>a</sub>] was substantial

An idiom chunk expresses its peculiar meaning only if every part belongs to the same clause. Since 70 is correct, we must suppose that the head of the relative ('headway'), which is external to it, originates inside the clause and then moves out leaving a trace beyond. The reconstruction effect is assured by this trace. Thus, the possibility of relativizing successfully a part of an idiom chunk is a diagnostic test to detect a raising derivation of the RC, but actually a characteristic of the idioms must be taken into consideration. Fraser 1970 pointed out that there are various types of (English) idioms: some of them are frozen in their form, and others are more or less transformable by some operation like word order's permutation or insertion of other constituents. The same property is recognized for Japanese by Hashimoto-Sato-Utsuro 2006. Therefore some idioms could be transformable or not (relativization is a transformation) due to their own nature, and not because of derivational patterns. This fact invalidates the strength of

this diagnostic tool; nevertheless, I tried to relativize a casual bundle of eight Japanese idioms. Every sentence was consistently judged ungrammatical by my informants, except for two, which were accepted by some speaker (but not from the majority of them). I report some examples, included the two more acceptable ones.

*Hone o oru*, 'to make an effort' (lit. 'to break a bone')

- 71) \*[Tanaka ga kono mondai no kaiketu ni \_\_<sub>a</sub> otta]  
 NOM this problem GEN solution DAT break.PAST  
 hone<sub>a</sub> no okage de tiimu wa syō o eta  
 bone GEN thanks to team TOP prize ACC win.PAST  
 “Thanks to the effort that Tanaka made for the solution of  
 this problem, the team won a prize”

*Yaku ni tatu*, 'to be useful, serve the purpose' (lit. 'to stand in part')

- 72) \*[Tanaka ga sugoku \_\_<sub>a</sub> tatta] yaku<sub>a</sub> wa  
 NOM very stand.PAST part TOP  
 kaisya no saiken no tame desita  
 company GEN rebuilding for COP.POL.PAST  
 “The purpose that Tanaka served immensely was for the  
 rebuilding of the company”

*Yokeina o sewa o yaku*, 'to poke one's nose into other's business' (lit. 'to grill an unnecessary assistance')

- 73) (?) [Tanaka ga \_\_<sub>a</sub> yaita] yokeina o sewa<sub>a</sub> wa  
 NOM grill.PAST unnecessary aid TOP  
 hontōni hana ni tuita  
 really be disgusted.PAST  
 Lit. “I'm really disgusted by the nose that Tanaka poked  
 into my business”



*Kūki o yomenai*, 'to not understand the situation' (lit. 'cannot read the atmosphere')

74) (\*)[Tanaka ga zenzen \_\_<sub>a</sub> yomenakatta]

NOM at all read.POT.NEG.PAST

yūbe no kūki<sub>a</sub> wa hontōni mazukatta<sup>25</sup>

last night GEN atmosphere TOP really be bad.PAST

Lit. "The situation that Tanaka didn't understand last night was really bad"

One should try this test on every single idiomatic expression in Japanese in order to establish positively if Japanese idiom chunks show reconstruction effects when relativized, but this is far beyond the aim of this work. Since the information I collected doesn't allow me to come to a straightforward conclusion, I won't consider the issue of reconstruction effects on idioms when I reason about the derivation of RCs.

### 3.5.2 Reflexives

As for reconstruction effects between an antecedent and its reflexive anaphora, I start from a claim of Ishii 1991, who affirms "unlike with *zibun*, relativization exhibits reconstruction effects with *kare-zisin*" and compares the two following examples (pp. 28-29):

75) \*[John<sub>a</sub> ga \_\_taipu sita] zibun<sub>a</sub> no ronbun

NOM type.PAST self GEN paper

Lit. "Self<sub>a</sub>'s paper that John<sub>a</sub> typed"

76) Mary wa [John<sub>a</sub> ga \_\_taipu sita] kare-zisin<sub>a</sub> no ronbun o

TOP NOM type.PAST he-self GEN paper ACC

mottekita

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25 This sentence was judged correct by four informants, wrong by six and questionable by three.

bring.PAST

Lit. “Mary brought himself<sub>a</sub>'s paper that John<sub>a</sub> typed”

An explanatory backward step must be done at this point. Japanese has three kind of reflexive pronoun: *zibun*, *zibun-zisin* and *kare-zisin*.<sup>26</sup> These pronouns have the following syntactical characteristics:<sup>27</sup>

### *Zibun*

It refers to a subject antecedent;  
its antecedent needs not to be in the same clause (no clausemate condition);  
it can be modified by adjectives or other qualifying expressions;  
it must be c-commanded by its antecedent;  
it can appear in the possessive position.

### *Zibun-zisin*

It refers to a subject antecedent;  
its antecedent needs to be in the same clause, unless *zibun-zisin* is the subject of the subordinate clause (clausemate condition);  
it cannot be modified;  
it must be c-commanded by its antecedent;  
it can appear in the possessive position;  
it is interpreted as a bound reflexive (see Zuber 2007).

### *Kare-zisin*

It needs not to refer to a subject antecedent (see Ishii 1991: 29);  
it is a co-referential reflexive and its antecedent should be interpreted by nominal case extensions (see Zuber 2007).

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26 This last reflexive expression, contrary to the first two, combines with every personal pronouns: *watasi-zisin* (myself), *anata-zisin* (yourself), *kanozyo-zisin* (herself); *watasitati-zisin* (ourselves), *anatatati-zisin* (yourselves), *karetati/kanozyotati-zisin* (themselves). They are very rarely used, though.

27 See Tujimura 1996 when not otherwise indicated.

Thus, although *zibun* is the most common reflexive form, it has different characteristics from English reflexives. *Zibun-zisin* and *kare-zisin* resemble more the English counterpart, but Ozaki 2011 observes some problems on *kare-zisin*. English *himself* is locally bound and takes as antecedent subjects and objects, while Japanese *zibun* is locally or long-distantly bound and takes as antecedent only a subject; according to Ozaki *kare-zisin* shares characteristics both with *himself* and *zibun*, so it is not perfectly overlapped with English *himself*; in addition, *kare-zisin* is not commonly used in normal conversation, has an English-translation flavor and the judgments about its use are not homogeneous (see Ozaki 2011: 57).

Keeping in mind that for the reason written above *kare-zisin* is not an affordable diagnostic tool, I prepared some tests to investigate on my own about the presence of reconstruction effects. Sentences in 77 are instances of restrictive clause (included 75 and 76 reported by Ishii 1991), while those in 78 are nonrestrictives. Sentences in a) are with *zibun*, in b) with *zibun-zisin* and in c) with *kare-zisin*.

*Restrictive RC*

77a) \*Mary wa [John<sub>a</sub> ga \_\_taipu sita] zibun<sub>a</sub> no ronbun o  
           TOP      NOM type.PAST *zibun* GEN paper ACC  
           mottekita  
           bring.PAST

77b) \*Mary wa [John<sub>a</sub> ga \_\_taipu sita] zibun-zisin<sub>a</sub> no ronbun o  
           mottekita

77c) ??Mary wa [John<sub>a</sub> ga \_\_taipu sita] kare-zisin<sub>a</sub> no ronbun o  
           mottekita<sup>28</sup>

Lit. “Mary brought himself<sub>a</sub>'s paper that John<sub>a</sub> typed”

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28 This sentence received everyone of the three possible judgments (right, wrong, questionable) in the amount of one third each.

*Nonrestrictive RC*

78a) \*Hanako wa [Tanaka<sub>a</sub> ga \_\_ teigen sita] ano yūmeina  
TOP NOM propose.PAST that famous  
zibun<sub>a</sub> no kasetu o hitei sita  
zibun GEN hypothesis ACC deny.PAST

78b) \*Hanako wa [Tanaka<sub>a</sub> ga \_\_ teigen sita] ano yūmeina zibun-  
zisin<sub>a</sub> no kasetu o hitei sita

78c) Hanako wa [Tanaka<sub>a</sub> ga \_\_ teigen sita] ano yūmeina kare-  
zisin<sub>a</sub> no kasetu o hitei sita  
Lit. “Hanako denied that famous hypothesis of himself<sub>a</sub> that  
Tanaka<sub>a</sub> proposed”

First, I propose not to take into consideration the sentences with *kare-zisin*, because the judgments on them are quite a lot heterogeneous and its use is affected by speaker's knowledge about English, as Ozaki notes:

“Most Japanese do not use *kare-zisin* as a reflexive in normal conversation. They pick up this lexical item when they first come across *himself* in English classes in junior high school. They overuse *kare-zisin* in junior high school, but later cease to use it, feeling that *kare-zisin* is a translation-flavor word.”

(Ozaki 2011: 57)

In addition, the sentences with *kare-zisin* may be forcedly attributed to the only one male character because *kare* 'he' cannot refer to a female noun as Hanako and Mary are. On the base of the judgments on a-b sentences, I would claim that Japanese RCs are derived by matching derivation, but doubts still remain. The sentences in a) are judged wrong (or not right at least) with the intended interpretation because *zibun* refers not to the subject of the RC, but to the subject of the matrix

clause. Those sentences were grammatical if the reflexive were co-indexed with the matrix subject. Since *zibun* can be locally bound, the only way to exclude a co-indexing with the embedded subject is to suppose a matching derivation, which deletes one of the two elements in the RC. The same conclusion holds for b) sentences, where in addition *zibun-zisin* is affected by the clausemate condition, so that the absence of reconstruction effects forces to exclude the raising derivation.

### 3.6 Ga/No conversion on subject

A well known characteristic of Japanese RCs is the possibility of marking the subject with the genitive postposition *no* instead of the nominative particle *ga*, the so-called *ga/no* conversion (or nominative/genitive conversion, NGC). This possibility is restricted by some constraints and not available for every type of RC (but for most of them). I want to point out which kinds of RC allow this conversion and under which conditions.

The NGC appears only in certain subordinate clauses, and Hiraiwa 2002 asserts that it is licensed by the attributive form of the predicate (for the difference between predicative and attributive form, see chapter 1.1), but I don't agree completely with him, because as the same Hiraiwa notes, the NGC appears in subordinate clauses that are not RCs, but in my opinion they do not use the attributive form (although it is difficult to state, since attributive and predicative forms are identical in most cases):

- 79) Kono atari wa [hi ga/no kureru ni turete]  
around here TOP day NOM/GEN go down.NPAST as

hiekondekuru  
get colder.NPAST

“It gets chiller as the sun goes down around here”<sup>29</sup>

(Hiraiwa 2002: 3)

In Japanese there is a number of subordinate clauses whose complementizer is morphologically a noun, so the clause appears in the form of a relative clause, although function and meaning are those of an adjunct clause. Fujita 1988 noted that in such an adjunct clause the NGC is admitted only if the predicate is unaccusative, while this restriction do not affect 'real' RCs:

*(Temporal) adjunct clause with unergative predicate:*

- 80) \*[Tarō no odotta toki] minna mo sō sita  
GEN dance.PAST *when* everyone also so did  
“When Taro danced, everyone else did also”

*RC with unergative predicate:*

- 81) [Tarō no odotta] toki ga insyōteki da  
GEN dance.PAST *moment* NOM impressive COP  
“The time when Taro danced is the most impressive”

*(Temporal) adjunct clause with unaccusative predicate:*

- 82) [Tarō no tuita toki] yado wa suite ita  
GEN arrive.PAST *when* inn TOP was vacant  
“When Taro arrived, the inn was vacant”

*RC with unaccusative predicate:*

- 83) [Tarō no kita] toki o omoidasenai  
GEN arrive.PAST *moment* ACC remember.POT.NEG.NPAST

---

<sup>29</sup> In my opinion, every complementizer realized with the particle *ni* needs the predicative form of the predicate.

“I cannot remember when Taro arrived”

(Fujita 1988: 72-74)

The NGC is available for gapped restrictive and nonrestrictive RCs; I verified that the constraint on unergative predicate does not hold for RCs neither if they are nonrestrictive (91):

84) [Aiko ga/no \_\_<sub>a</sub> katta] hon<sub>a</sub>  
NOM/GEN buy.PAST book  
“The book that Aiko bought”

85) [Aiko ga/no \_\_<sub>a</sub> yonda] 'Bocchan'<sub>a</sub> wa Natsume Sōseki no  
NOM/GEN read.PAST TOP GEN  
sakuhin desu  
work COP.POL  
“'Bocchan', that Aiko read, is a work of Natsume Soseki”

86) [Watasi no umareta] Milano wa kita-Italia ni aru  
I GEN born TOP North-Italy LOC is  
“Milano, where I was born, is in Northern Italy”

But again Hiraiwa 2002 observes that NGC is blocked in RCs when an overt direct object is in the clause (p. 11):

87) [Kinō John ga/\*no hon o katta] mise  
yesterday NOM/GEN book ACC buy.PAST store  
“The store where John bought books yesterday”

The subject marked by *no* seems to be lower than the subject marked by *ga*: Inoue 1976 observes that in 88a *no* is not acceptable, contrary to 88b, where the *no*-subject is subjacent to the predicate; Miyagawa 2012 points out that clauses with the *no*-subject are smaller than the others

because they cannot host high adverbials like the evaluative, evidential and speech act ones, but only lower adverbials like the modals (89a, 89b):

88a) [John ga/\*no Amerika de syuppan sita] hon wa  
NOM/GEN LOC publish.PAST book TOP  
sappari urenai  
not at all be sold.NEG  
“The book that John published in America doesn't sell at  
all”

88b) [Amerika de John ga/no syuppan sita] hon wa sappari  
urenai

89a) [saiwaini Tarō ga/\*no yomu] hon  
fortunately NOM/GEN read.NPAST book  
“The book that Taro will fortunately read”

89b) [kanarazu Tarō ga/no yomu] hon  
for certain NOM/GEN read.NPAST book  
“The book that Taro will read for certain”

Another piece of evidence for the reduced size of the RCs under NGC is provided by Akaso and Haraguchi 2010, who note that NGC is blocked also by focus particles; put in other words, a RC with NGC is not large enough to reach a Focus projection:

90) [Tarō DAKE ga/\*no nonda] kusuri  
only NOM/GEN take.PAST medicine  
“The medicine that only Taro took”



I have a conjecture about these facts. The low position of the genitive subject, paired with the littleness of the related clause, is compatible with the generation of the subject in the vP area of an unaccusative predicate as seen in the case of an adjunct clause. While the adjunct clauses have crystallized the constraint on genitive subject in case of transitive and unergative predicates, the 'standard' relative clauses have overtaken this constraint as long as a direct object is not expressed, but this is no more than a personal thought. In addition, it must be taken into account that, according to a personal communication by Yoshio Endo, in ancient Japanese (unfortunately I don't know how ancient) and still in contemporary Japanese in case of NGC, *no* is an old information marker, in opposition to the new information marker *ga*, but the domain of the old information is higher than the new information one, as far as topics are higher than focuses (see Benincà-Poletto 2004 and Franco 2009). In my opinion, a diachronic analysis of Japanese RCs would make a significant enlightenment on the comprehension of their actual structure.

The NGC is allowed also in gapless relatives without *to iu*, but for some informants the grammaticality judgment is a bit degraded if the predicate is transitive (91b). This limitation must be related to the ungrammaticality of gapped relatives under NGC with an overt direct object seen above.

91a) [sakana no yakeru] nioi  
 fish GEN be roasted.NPAST smell  
 “The smell of a fish's being roasted”

91b) (?) [haha no kukkii o yaku] nioi  
 mother GEN cookies ACC bake.NPAST smell  
 “The smell of my mother's baking cookies”

As for *to iu*-relatives, it is recognized that this kind of RC do not allow the NGC; see for example 92, taken from Inoue 1976:

- 92) \*[karera no buzi datta to iu] sirase ga  
 they GEN safe COP.PAST *to iu* news NOM  
 kazoku o genkizuketa  
 family ACC cheer up.PAST  
 “The news that they were safe cheered up the family”

This fact is easily explained assuming that the particle *to* in *to iu* is a declarative complementizer and the clause in front of it is a full fledged declarative sentence, that similarly to a matrix clause is unsuitable for the NGC. The following contrast makes clear that it is the presence of an overt complementizer that blocks the conversion:

- 93a) [Syōrai daizisin ga/no okiru]  
 in the future great earthquake NOM/GEN occur.NPAST  
 kanōsei  
 possibility

- 93b) [Syōrai daizisin ga/\*no okiru]  
 in the future great earthquake NOM/GEN occur.NPAST  
  
 to iu kanōsei  
*to iu* possibility  
 “The possibility that a great earthquake will occur in the future”

(Hiraiwa 2002: 10)

The constraints that hold for *to iu*-sentences hold for *to no*-sentences as well, as the following example, taken from Nitta 2008: 82, shows:

- 94) [sakusen ga/\*no seikō sita to iu/to no] hōkoku  
strategy NOM/GEN succeed.PAST *to iu/to no* report  
“The report that the strategy succeeded”

### 3.7 Modality

In Japanese there is a large amount of grammaticalized modal expressions, some of them are in form of inflexional affix, some other are free morphemes placed by the predicate and other are periphrastic forms of the verb. In a cartographic perspective each modal expression is a projection hierarchically ordered in the linear structure of the sentence. Cinque 1999 proposed a universal hierarchy of clausal functional projections where Mood and Modality phrases are ordered together with Aspectual and Tense projections. In this chapter I want to investigate the size of Japanese RCs by examining up to which modal projection a RC can include.

In order to maintain a strong focus on the Japanese language, I will not refer to Cinque's hierarchy though, but to Larm 2011, Narrog 2009 and Ueda 2008. Narrog proposes his own hierarchy of Japanese modality expression, pointing out some challenges for Cinque's theory, that seems not to fit perfectly the Japanese case (see Narrog 209: 242-243). I think that the main problem concerns the definition of modal categories: under the motto “one feature one head”, a small difference in the meaning of two modal expressions of distinct languages can signify a different position in the functional hierarchy, but their tagging might be misleading. According to Larm 2011 Japanese modality can be divided into three macro-groups: epistemic, evidential and deontic modality; each group contains modal expressions of different morphology. But these groups are not homogeneous in the linear ordering of ModPs; making a parallel with Narrog's hierarchy, it emerges

that Japanese modality is ordered along the degree of subjectivity. The higher degree of subjectivity has the projection, the higher is its place in the hierarchy. See the table in 95, that compares the taxonomy of Larm 2011 with the order of Narrog 2009 (the positions on top are the external ones). Following Larm 2011, who quotes Kindaichi 1953, “subjective modals express the speaker's state of mind *at the time of the utterance*”, are not in the scope of past tense and negation, cannot be questioned nor adnominalized, have wider scope than objective modality and cannot be stacked with another subjective ModP (pp. 12-13). The most subjective modalities are imperative (affirmative and negative), hortative ('let's do...') and conjectural ('I suppose that...', 'it must be that (because I think so)...').<sup>30</sup>

95)

Larm 2011			Form	Narrog 2009	Ueda 2008	
Degree of subjectivity	Category	Denomination		Denomination		
Maximum	Deontic	(Negative) Imperative	-ro/-na/-nasai	Speech act <sub>1</sub> Imperative	Utterance modals	Genuine modals
High	Deontic	Hortative	-yō/-masyō	Speech act <sub>2</sub> Hortative		
	Epistemic	Conjectural	darō	Epistemic <sub>1</sub> speculative	Epistemic modals	

<sup>30</sup> The epistemic conjectural modality in Japanese is expressed by the free morpheme *darō*, but this form covers several nuances of meaning; see Larm 2011: 18-20.

Intermediate	Evidential	Quotative	sō da	Evidential <sub>1</sub> Reportive	Quasi-modals
Low	Epistemic	Speculative	kamosirenai	Epistemic <sub>2</sub> Epistemic possibility	
	Evidential	Inferential	yō da	Evidential <sub>2</sub> Inferential evidentiality	
	Evidential	Informal inferential	mitai da		
	Evidential	External evidence	rasii		
	Epistemic	Deductive	ni tigai nai	Epistemic <sub>3</sub>	
Zero	Epistemic	Assumptive	hazu da	Epistemic necessity	
	Deontic	Moral obligative	beki da	Deontic <sub>1</sub> Weak deontic necessity	
	Deontic	Obligative	-nakereba naranai	Deontic <sub>2</sub> Strong deontic necessity	
	Evidential	Sensory evidential	-sō da	Evidential <sub>3</sub> Predictive	

Ueda 2008 starts from the traditional distinction in the Japanese linguistics between Genuine modals and Quasi-modals, the first being unsuitable for the Tense and Polarity differentiation and for the stacking of more than one (Genuine) modal phrase, contrary to Quasi-modals, which can be inflected in Tense and Polarity and can be

stacked.<sup>31</sup> As the table in 95 shows, Genuine modals correspond to the modals with the highest degrees of subjectivity outlined above. Genuine modals are further divided into Utterance and Epistemic modals, following Inoue 2006's labeling;<sup>32</sup> Epistemic modals presuppose neither the existence nor the involvement of addressees, while Utterance modals presuppose not only the existence, but also the involvement of the addressee (see Ueda 2008: 128). Ueda's research comes to the conclusion that Utterance modals, contrary to Epistemic modals, have the following properties: 1)they cannot be embedded in an adversative coordinate clause; 2)they don't allow *wa*-marked topic subjects; 3)their subject undergoes person restrictions.<sup>33</sup>

Going back to RCs, I prepared a set of tests for every modal expression reported in the table in 95, in particular I fashioned an example of restrictive, nonrestrictive, gapless, *to iu* and *to no*-type RC

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31 See among others Nitta 1991 and Inoue 2007.

32 The terms used by Inoue 2006 appears quite rough compared to the fine-grained descriptions of modal projections in Larm 2011 or Narrog 2009, but as long as they are limited to Genuine modals, they are not incorrect at all.

33 Here are in order some examples of the cited properties, from Ueda 2008: 134ff; the sentences a-c1 are samples of Utterance modals, a-c2 are of Epistemic modals:

- a1) \*Hayaku kotti e koi ga, ikenai  
 quickly here to come.IMP but, go.POT.NEG.NPAST  
 (Lit.) "Trough come here quickly, but I cannot"
- a2) Kimi wa iku darō ga, boku wa ikanai  
 You TOP go MOD but, I TOP go.NEG.NPAST  
 "You will go there, but I won't" (surmise)
- b1) \*Kimi wa kotti e koi  
 You TOP here to come.IMP  
 (Lit.) "You, come here"
- b2) Asu wa hareru darō  
 tomorrow TOP be sunny MOD  
 "It will be (probably) sunny tomorrow"
- c1) {\*boku/kimi/\*kare} ga hayaku kotti e koi  
 I you he NOM quickly here to come.IMP  
 "(You) come here"
- c2) {boku/\*kimi/kare} ga iku darō  
 I you he NOM go.NPAST MOD  
 "I/you/he will go there"

with each ModP inside. The results obtained by my informants are quite clear-cut:

- I) *to iu* and *to no* relatives allow every modal expression;
- II) restrictive and nonrestrictive gapped relatives and gapless RCs allow every modal expression except for those called Utterance modals under Ueda's categorization.

Here are some examples of the tests I conducted (from a to d in order: restrictive, nonrestrictive, gapless and *to iu/to no*-type RC):

*Imperative -ro (Utterance modal)*

- 96a) \*[*omae mo sonkei siro*] *dōbutu-tachi wa*  
you too respect.IMP animals TOP

*daizina sonzai da*

important being COP.NPAST

Lit. "Animals that you too show respect!, are important beings"

- 96b) \*[*omae mo miro*] *Yamada kun ga naite iru*  
you too see.IMP NOM is crying

Lit. "Yamada, that you too see!, is crying"

- 96c) \*[*hayaku siro*] *meirei o uketa*<sup>34</sup>

quickly do.IMP order ACC receive.PAST

Lit. "I received the order that do it quickly!"

---

34 I must acknowledge that 96c is wrong at least because of another reason, that is that the head *meirei* 'order' does not admit a gapless relative clause without the complementizer *to iu* since it is a noun that indicates an utterance (see chapter 1.2.3), but the intended sentence with an imperative inside cannot be realized with a head different from 'order'.

97d) [hayaku siro] to iu/to no meirei o uketa  
quickly do.IMP to iu/to no order ACC receive.PAST  
“I received the order 'do it quickly!’”

*Hortative -(y)ō (Utterance modal)*

97a) \*[minna yomō] sinbun wa koko ni aru  
everybody let's read newspapers TOP here LOC are.NPAST  
Lit. “The newspapers that let's read everybody are here”

97b) \*[minna yomō] 'Bocchan' wa  
everybody let's read TOP  
meisaku desu  
masterpiece COP.POL.NPAST  
Lit. “'Bocchan', that let's read everybody, is a masterpiece”

97c) \*[eiga o mi ni ikō] sasoi o moratta  
movie ACC see to let's go invitation ACC receive.PAST  
Lit. “I received the invitation that let's go to see a movie”

97d) [eiga o mi ni ikō] to iu/to no sasoi o  
movie ACC see to let's go to iu/to no invitation ACC  
moratta  
receive.PAST  
“I received the invitation 'let's go to see a movie’”

*Speculative kamoshirenai (Quasi modal)*

98a) [asita kuru kamoshirenai] hito wa  
tomorrow come might person TOP  
nannin gurai desu ka?  
how many approximately COP Q  
“About how many are the people that tomorrow might  
come?”



98b) [asita kuru kamosirenai] Tarō wa Hanako ni  
 tomorrow come might TOP DAT  
 syōtai site moratta rasii  
 invite get.PAST it seems  
 “It seems that Taro, who might come tomorrow, was invited  
 by Hanako”

98c) [asita Tarō ga kuru kamosirenai] uwasa ga  
 tomorrow NOM come might rumor NOM  
 hirogatta  
 spread.PAST  
 “The rumor that Taro might come tomorrow has spread”

98d) [asita Tarō ga kuru kamosirenai] to iu/to no uwasa ga  
 tomorrow NOM come might to iu/to no rumor NOM  
 hirogatta  
 spread.PAST  
 “The rumor that Taro might come tomorrow has spread”

*Sensory evidential -sō (Quasi-modal)*

99a) [taoresō na]<sup>35</sup> ki kara hayaku hanaremasyō  
 fall.MOD tree from quickly let's go away.POL  
 “Let's go quickly away from the trees that are going to fall”

99b) [taiin dekisō na] Yamada san wa uresii desyō  
 leave the hospital.MOD TOP be happy must  
 “Mr. Yamada, who is going to leave the hospital, must be  
 happy”

---

35 The suffix *-sō* is morphologically a *na*-adjective, thus its attributive form maintains the particle *na*.

99c) [ame ga furisō na] yōsu desu  
rain NOM fall.MOD appearance COP.POL.NPAST  
“It seems that it's starting raining”

99d) [ame ga furisō da] to iu/to no yosoku o kiita  
rain NOM fall.MOD *to iu/to no* forecast ACC hear.PAST  
“I heard the forecast that it's starting raining”

As a conclusion I would say that the behavior of gapped and gapless relative clauses confirms, at least partially, the hierarchy of modal projections proposed by Narrog 2009, pointing out a dividing line between the two highest modal categories (Speech act for Narrog, Deontic for Larm) and the remaining. The two groups are adjacent and internally consistent: gapped and gapless relatives are clauses large enough to contain modal expressions up to that dividing line, but not larger. On the contrary, *to iu* and *to no*-type RCs are boundless, and this fact is clearly due to the matrix nature of a declarative sentence like that which is closed by the declarative complementizer *to* that is part of the complex complementizers *to iu* and *to no*. In other words, the RCs of the *to iu* and *to no*-type are as large as a declarative sentence, which has the same status of a matrix sentence, at least as long as it behaves like a direct discourse. For the size of the *to iu* and *to no* sentences and the differences between them, I refer to chapters 1.2.3 and 3.8.

### **3.8 Presence of Topic**

In this section I investigated if it is possible to insert a topic inside the RC in order to determine some more clues about the size of the RC itself. Since topics are located in the left periphery of the sentence (see Rizzi 1997 among others), its presence (or absence) would be an

evidence to state either that the RC reaches the CP domain or stops at a lower level. It is generally assumed that a topic cannot enter a RC, whose subject is marked only by the nominative particle *ga*, and this assumption is widely confirmed, but there are some cases in which a topic is admissible.

First, topics are consistently excluded from gapped restrictive and nonrestrictive RCs:

- 100) [Tanaka san *ga*/\**wa* syōkai site kureta] zyosei wa  
           NOM/TOP introduced to me girl TOP  
 kare no mei desu  
 he GEN niece COP.POL  
 “The girl that Mr. Tanaka introduced to me is his niece”

- 101) [Tanaka san *ga*/\**wa* syōkai site kureta] Hanako wa  
           NOM/TOP introduced to me TOP  
 kare no mei desu  
 he GEN niece COP.POL  
 “Hanako, who Mr. Tanaka introduced to me, is his niece”

Gapless clauses are not as straightforward as gapless clauses are: topics are generally excluded, but some informants accept them; 103 and 104 are grammatical for a couple of native speakers.

- 102) [Zyosei *ga*/\**wa* kesyō suru] fūsyū wa dokonimo  
 girls NOM/TOP make-up.NPAST custom TOP everywhere  
 aru to omou  
 be.NPAST that think.NPAST  
 “(I) think that the custom that the girls make up is everywhere”

- 103) \*[Tanaka wa sakana o yaita] syōko ga  
TOP fish ACC grill.PAST evidence NOM  
nai  
be.NEG.NPAST  
‘‘There aren’t evidences that Tanaka grilled the fish’’
- 104) \*[Haha wa kukkii o yaku] nioi ga  
my mother TOP cookies ACC bake.NPAST smell NOM  
suru to kodomo no koro no omoide ga  
do.NPAST when child GEN period GEN memories NOM  
takusan ukande kuru<sup>36</sup>  
many rise.NPAST  
‘‘When I feel the smell of my mother’s baking cookies, many  
memories of my child period come to my mind’’

Oosima 2010 reports an interesting property of the *koto*-sentences. *Koto* means ‘thing, fact’ and is often used as head of a gapless RC. According to Oosima, *koto*-sentences admit a topic if the clause expresses a condition or a quality about the topic itself. The condition is tenseless or permanent; the insertion of topic is blocked if the clause expresses a specific, tensed fact. Compare 105 and 106:

- 105) [Tikyuu wa taiyō no mawari o mawatte iru] koto o  
earth TOP sun GEN around ACC rotate.NPAST fact ACC  
sensei ga osiete kureta  
teacher NOM explained to me  
‘‘The teacher explained to me that the earth rotates around  
the sun’’

---

36 This sentence is correct if *haha wa* is interpreted as topic/subject of the main clause: ‘‘many memories of her child period come to my mother’s mind when she feels the smell of (someone’s) baking cookies’’.

- 106) \*[Takesi wa kinō koko e kita] koto o  
 TOP yesterday here to come.PAST fact ACC  
 Yasuko wa sitte iru  
 TOP know.NPAST  
 “Yasuko knows the fact that yesterday Takeshi came here”  
 (Oosima 2010: 57, 61)

In my opinion, this possibility of the *koto*-sentences could be related to the fact that *koto* is used to nominalize verbs and sentences.<sup>37</sup> It might be that *koto*-sentences are no more simple RC, but they transformed into another type of clause with its own set of peculiarities, similarly to the *toki*-sentences seen in section 3.6, which are morphologically derived from RCs but have the independent status of temporal adverbial clause. Indeed, in *koto*-sentences with a topic, *koto* cannot be replaced by another abstract term with a similar meaning like *zizitu* 'fact':

- 107) [Mizu wa 100°C de futtō suru] koto/\*zizitu o  
 water TOP 100°C at boil.NPAST fact ACC  
 kansatu sita  
 observe.PAST  
 “I observed the fact that water boils at 100°C”

RCs with *to iu* and *to no* allow topics, confirming that their size is larger than the other RCs, since they resembles more a declarative sentence:

- 108) [Ken wa okane ga aru] to iu/to no  
 TOP money NOM be.NPAST *to iu/to no*  
 uwasa ga hirogatta

---

<sup>37</sup> Sentences' nominalization is possible by means of the noun *koto* and the particle *no*:

- a) eiga o miru koto/no ga suki desu  
 movie ACC watch *koto/no* NOM like COP.POL.NPAST  
 “I like (the act of) watching movies”

rumor NOM spread.PAST

“The rumor that Ken has money (is rich) has spread over”

The particle *wa* in Japanese marks the topic as intended so far (that is the theme of the predication), but it marks also a contrastive topic, that corresponds to the so called 'List Interpretation' topic under the labeling of Benincà-Poletto 2004. Benincà and Poletto for the Romance languages and Franco 2009 for Japanese demonstrated that the contrastive topic is lower than the thematic one. According to Oosima 2010 a contrastive-*wa* marked element is allowed even in gapped and gapless RCs:

109) [Syosinsya ni wa muzukasisugiru] mondai  
beginners DAT TOP too difficult.NPAST problem  
“A problem too difficult for the beginners (but suitable for experts)”

110) [Nihonsyu wa tasyō nomu] ano hito ga,  
Japanese sake TOP a little drink.NPAST that person NOM  
uisukii wa zettai nomanai to itte iru  
whisky TOP absolutely drink.NEG.NPAST that say.NPAST  
“That person, that drinks a little Japanese sake, says that he absolutely doesn't drink whisky”

111) Sono mura wa [yosomono ni wa matigatta mitizyun o  
that village TOP strangers DAT TOP wrong route ACC  
osieru] fūsyū ga aru  
show.NPAST custom NOM be.NPAST  
“In that village there is the custom of showing the wrong route to the strangers (but not to the locals)”

(Oosima 2010: 43, 50)

As a recap it can be affirmed that thematic topics are forbidden in gapped and gapless clauses and allowed in *to iu* and *to no*-sentences, while contrastive topics are allowed in every type of RC; or, in other words, that gapped and gapless clauses are large enough to include contrastive topics but not the thematic ones, while *to iu* and *to no*-sentences are large enough to include both.





## **4. A cartography for the Extended Nominal Projection**

This chapter aims to put in relation the results of the data collection produced in chapter 3 with Cinque's proposal for a unified theory of relative clauses presented in chapter 2. The issues which I will try to give an account for concern the position of every type of RC in relation to the head and the other modifiers of the NP, the derivation pattern of the RCs (namely a Raising or a Matching derivation) and the internal size of the RC itself depending on its type.

### **4.1 The cartography of the extended projection of the NP**

Pace Cinque 2008a and 2010b, as seen in chapter 2, a Noun Phrase is actually seen as an extended projection with the NP in the strict sense at the bottom of the tree, and all the elements that modify it in higher positions in a determined order. The RCs are one of the NP's modifiers located past it. The hierarchy of these elements proposed by Cinque on the basis of a cross-linguistic analysis is repeated here as 1:

- 1) NRRC>Q<sub>all</sub>>Dem>RRC>Num>RedRC>A>N

The partial mutual orders of these elements observed in Japanese and explained in detail in chapter 3.1 are reported hereafter for convenience's sake:<sup>1</sup>

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<sup>1</sup> Remember that the elements indicated by Dem, Num, A, N and Q are phrases and not bare heads.

- 2) Dem>Num>A>N
- 3) Dem>A>Num>N
- 4) A>Dem>Num>N
- 5) Num>Dem>A>N
- 6) RC>Dem
- 7) Dem>RC
- 8) RC>Q
- 9) RC>Dem>Q
- 10) RC>A
- 11) RC>Num
- 12) Num>RC
- 13) RC>Num>A
- 14) RC>A>Num
- 15) Num>RC>A


First, I observe that Num is very free and doesn't allow one to determine its base position. I don't have any clue to explain this behaviour, but it could be related to the fact that Japanese numerals are based on sortal classifiers, which are different from the bare numerals for instance of the Indo-European languages. It might be that they have a different set of properties and a different original position. I propose not to take into account the presence of Num further in the discussion because this issue cannot be treated with enough certainty. The analysis on the position of Num is thus suspended.

I guessed then that the order in 4 can be ignored because there is no morphological difference between an adjective and a RC containing a bare adjectival predicate, hence an adjective before a demonstrative could be interpreted as a RC and not as a simple adjective. The exclusion of 4 limits the possible combination to Dem>A and RC>A, which are consistent with Cinque's hierarchy.

The order Dem>RC takes place mostly when there aren't other elements in the nominal expression; otherwise the prevailing order is

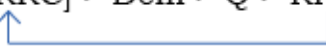
consistently RC>Dem. According to Kameshima 1989 for Q and Ishizuka 2008 for Dem, when the RC precedes these two elements the interpretation is ambiguous between restrictive and nonrestrictive, while when it follows them the restrictive one is predominant (although the order Q>RC was rarely accepted in my tests). This fact is easily explained if we accept the order proposed by Cinque, where NRRCs are before, and RRCs are after Dem and Q: if the RRC remains in its position it is correctly interpreted only as restrictive; if it raises past Dem/Q it can be interpreted either as a base-generated NRRC or as RRC by reconstruction.

16) NRRC > [RRC] > Dem/Q > RRC



As for the order between Dem and Q, 9 determine the order Dem>Q, which is the opposite of Cinque's claim. I state that the reason resides in the nature of Japanese quantifiers: although the meaning is the same of a universal quantifier, Japanese *subete* 'all' (as *hotondo* 'almost all' and *dono...mo* 'every') is a nominal modifier that behaves just like other numerals (see footnote 1 and 2 in chapter 1.1). Thus, the Japanese Q that I'm writing about is not Cinque's Q, but a different projection, which is located namely after Dem. The constituent's order emerged so far is therefore:

17) NRRC > [RRC] > Dem > Q > RRC > A > N



This order is quite similar to Cinque's hierarchy. Regarding the mutual position of NRRCs and RRCs, I endorse Kameshima's claim, corroborated by my own tests, that the first precede the second, but I must remember that in Ishizuka 2008 it is affirmed the contrary. In that case I would conclude that the RRC raises higher past the NRRC.

What I believe worth noting is the fact that Japanese RRCs have the strong tendency to leave their original position and raise to a higher one.

Kameshima 1989 cites the following contrast too (pp. 211-212):


18a) [Tako o tabeta] san-nin no gakusei ga sinda  
octopus ACC eat.PAST 3-cl. GEN student NOM die.PAST  
“Three students(,) who ate octopus(,) died”

18b) san-nin no [tako o tabeta] gakusei ga sinda  
3-cl. GEN octopus ACC eat.PAST student NOM die.PAST  
“Three students who ate octopus died”

In other words, also in case of Num there is the ambiguity in the interpretation of the RC when it comes first, while after Num it can only be restrictive. If we assume this, we should speculate that the original position of the RRC is after Num, which is the slot of the reduced RCs in Cinque's model. Kayne 1994 affirms that prenominal RCs are all IPs and that their verbs “are nonfinite/participial, having reduced tense possibilities as compared with finite verbs” (p. 95). I had the suspicion that Japanese has reduced clauses in addition to the complete ones, but no test that I ran revealed any difference that proves this distinction. It could be therefore that every RC in Japanese is actually a reduced clause, but I find difficult to assert that a reduced clause can contain up to a quite high modality projection as it came out in chapter 3.7.<sup>2</sup> In addition, I just claimed that it is not possible to determine a base position for Num basing on my tests, thus this proposal is limited to a conjecture, but if it is true it has the desirable consequence of making the order of the elements more similar to Cinque's hierarchy:

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<sup>2</sup> Besides, there is no morphological distinction in Japanese between a finite and a participial form of the verbs.

19) NRRC > [RRC] > Dem > Q > Num > (Red)RRC > A > N  


Regarding the insertion point of the other types of RC, there aren't very strong pieces of evidence from the coexistence of two clauses, partly because Japanese speakers prefer to bind the two clauses with a conjunction between them, rather than pull them together separately, and partly because the tests' results are not clear-cut. Nevertheless there is a tendency for the *to iu*-clauses to precede the gapped clauses, and for gapped clauses to precede the gapless (and the *to no*-) ones. At this stage I haven't enough evidences to propose an ordering of the various types of RC; I will return on this issue after examining other properties of the sentences.

## 4.2 Derivation of Japanese Relative Clauses

### 4.2.1 Derivation of gapped clauses

In order to determine the derivational pattern of Japanese RCs, I start from the case of long-distance relativization. In chapter 3.3 we saw that there aren't actually instances of long-distance relativization, but only short-distance relativization of a Major Subject that originates in the outer relative and is coindexed with a *pro* in the inner clause. By virtue of the genitive relation that holds between the Major Subject, which is a topic, and its comment, which is the head of the inner RC, and of the tendency of Major Subjects to form more easily nonrestrictive RCs, I claimed that these Major Subject must be located between the point 35 and 36 of the diagram 41 in chapter 3.2.1 and updated hereafter as 20:



1976 before her) admits as marginal -but not totally ungrammatical- the use of resumptive pronouns, like in 21 (repeated from 65 in chapter 3.4):

- 21) ?[[ \_\_<sub>α</sub> sono hi<sub>β</sub> ni/ soko<sub>β</sub> de mensetu o uketa]  
that day DAT/there LOC interview ACC took  
gakusei<sub>α</sub> ga minna ukaru] hi/kaigisitu<sub>β</sub>  
student NOM all pass day/conference room  
Lit. “The day when/the conference room where the students  
that had the interview that day/there, all passed”

Taking into consideration the relative ease for high elements like topics to form NRRCs, as stated above, the acceptability of resumptive pronouns in cases of apparent long-distance relativization suits the claim of Kameshima 1989 that resumptive pronouns are perfectly acceptable in RCs with a nonrestrictive reading.

The acknowledgment that the instances of island violation in Japanese are only apparent makes available again the possibility of a raising derivation for those RCs,<sup>4</sup> but it doesn't affirm it positively either. Island violation effects are still detectable when one tries to extract a direct object instead of a subject (see example 49 in chapter 3.3), but to say it with the words of Krapova 2010, “island effects on the other hand do not necessarily imply a raising derivation, they may also be found under matching” (p. 1251). Thus, the issue of long-distance relativization doesn't give any clue about the derivation of Japanese RCs. At the same time, neither the analysis about the presence of resumptive pronouns in the place of the gap internal to a RC is decisive. The analysis that I conducted in chapter 3.4 led me to assume that Japanese do not admit resumptive pronouns instead of the gap of a RC,

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4 The apparent absence of island effects drove several authors like Murasugi 2000 and Fukui and Takano 2000 to affirm that Japanese RCs are derived by base-generation of the external head, or in other words by matching derivation.

and this fact makes me lean toward a raising derivation, because in this case the gap in the clause would be a trace left behind the movement, and a trace cannot be substituted by anything else. But actually there are cases in which a resumptive pronoun is acceptable for some informants (see examples 68-69 in chapter 3.4). It could be therefore that Japanese RCs are derived by matching, that the pro in the clause coindexed with the external head is replaceable by a resumptive pronoun, but that Japanese prefers not to do it (as many native speakers told me, in Japanese pronouns are rarely used in principle, an utterance with many pronouns sounds like an unnatural English translation). There aren't therefore clear-cut pieces of evidence from the investigation on resumptive pronouns to determine the derivation of Japanese RCs, because it isn't a suitable tool for Japanese due to independent reasons.

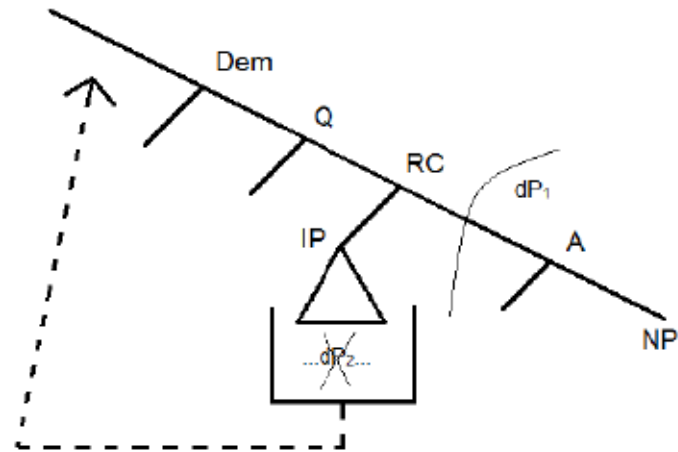
What about the criterion of the presence of reconstruction effects? The tests exposed in chapter 3.5.2 suggest a matching derivation, because no effect is detectable with the reflexives *zibun* and *zibun-zisin*, meaning that the gap of the RC and the overt head aren't in a chain. I already stated that *kare-zisin* isn't a reliable term for our objective, but if we consider it we must admit that it produces reconstruction effects, at least for some informants and for Ishii 1991, preferably in nonrestrictive clauses. In such circumstances I would conclude that Japanese RCs resort to a raising or a matching derivation depending on the presence of given words and not in a unique and consistent way.

If we assume a matching derivation, there are two possible configurations: in the first one, that coincides with Cinque's proposal for a matching analysis of prenominal RCs reported in chapter 2, the internal head  $dP_2$  is canceled by backward deletion and no movement happens, unless the bare IP of a restrictive RC needs to reach a position before Dem and Q (see 22); in the second one the external head  $dP_1$  raises to the specifier of a CP projection immediately over the insertion point of the RC, from where it deletes the c-commanded  $dP_2$ , and then

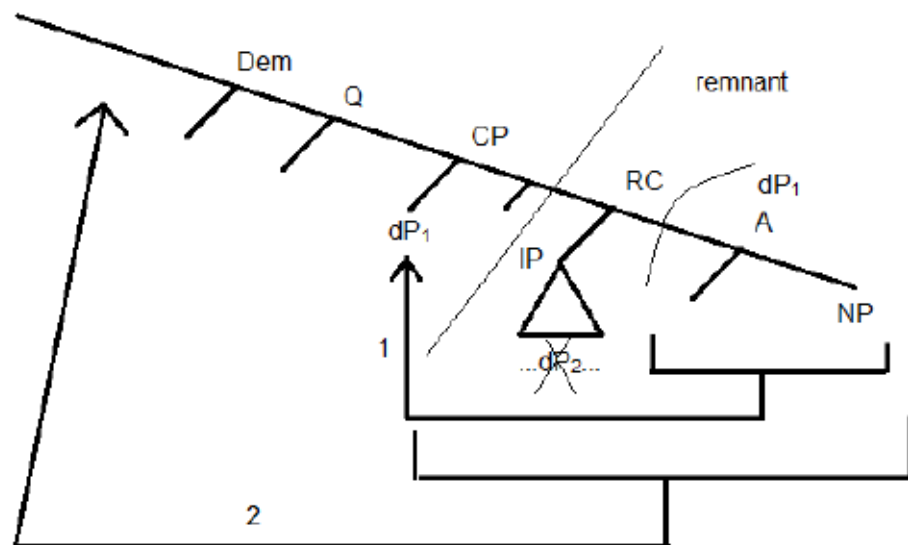


the remnant of the RC raises to a higher position, eventually overtaking Dem and Q if it is a RRC (see 23).

22)



23)

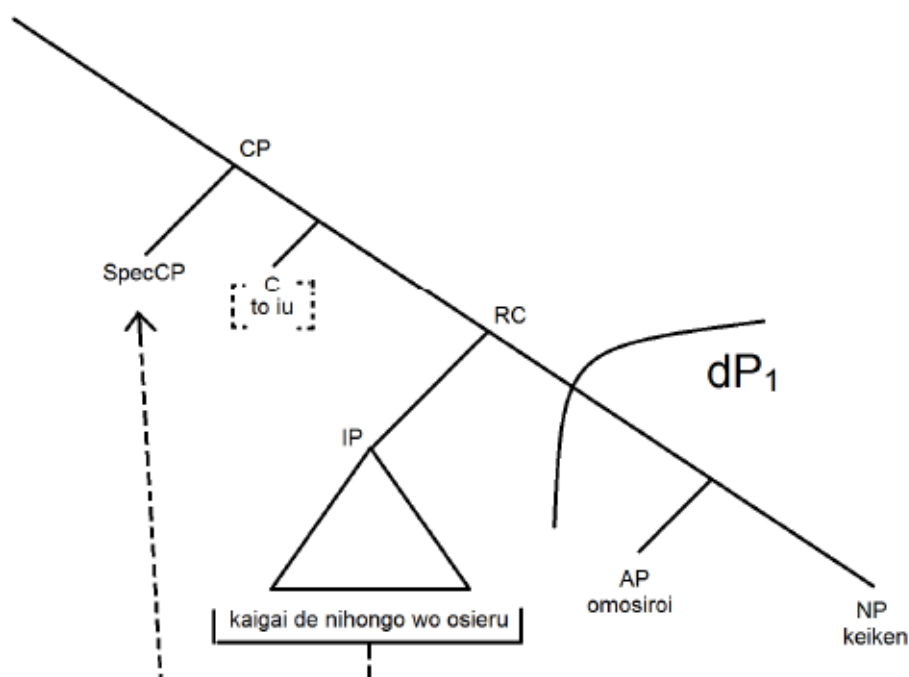


#### 4.2.2 Derivation of gapless and *to iu*-clauses

So far was the discussion about the derivation of gapped clauses. Regarding the derivation of gapless and *to iu*-type RCs, Cinque's model

reveals its efficiency providing a simple but effective account. Since there is no gap in them, the raising derivation is excluded a priori. Only a matching derivation is available in these cases, in the literal sense that an external head matches a complete sentence by juxtaposition. A RC of this type can be easily seen as an element that qualifies the head-noun, it doesn't select the head by means of some criteria that the head satisfies being part of the clause (like in *I search for a man – Which man? – The one that \_\_ wears a hat*), but describes its content and gives additional information ('the story *that John came back from Japan*', 'the smell of *my mother's baking cookies*'). The overt head is  $dP_1$ , the noun at the base of the NP, and the RC is a complete sentence that qualifies it among other modifiers. No deletion and no movement are required in the configuration of a gapless clause. A slight difference characterizes *to iu/to no*-sentences, which have an overt complementizer: similarly to the relative complementizer 'that' in English or 'che' in Italian, *to iu/to no* takes place in the head of the CP above the insertion point of the RC, and then the RC itself raises to SpecCP. 24 depict the structure of a nominal expression that is optionally realized with or without the complementizer *to iu*.

- 24) [kaigai de nihongo o osieru] (to iu)  
 overseas LOC Japanese ACC teach.NPAST *to iu*  
 omosiroi keiken  
 interesting experience  
 “The interesting experience of teaching Japanese overseas”



Cinque 2008a hypothesizes two CP projections above the RC on the basis of evidences from Bulgarian, reported by Krapova 2010, where a topicalized element of the RC can raise between the Head and the complementizer *deto* in expressions derived by matching but not in those by raising, leading one to assume two distinct positions, but since Japanese hasn't such a word order and thus cannot provide evidences for a double CP, I won't consider this problem and hypothesize only one projection.

As a recap, regarding the derivation of Japanese RCs there are more pieces of evidence in favour of the matching pattern. Gapless and *to iu*-sentences can be derived only by a matching configuration due to their intrinsic property of lacking a gap, but this is a logical and semantic property common to every language that has gapless RCs, so it cannot have any influence in the derivation of gapped clauses, or no language would allow a raising configuration. The evidence comes mainly from the absence of reconstruction effects between the head of the relative and the reflexives *zibun* and *zibun-zisin* for gapped clauses.

Reconstruction effects with idiom chunks and the insertion of resumptive pronouns have proved not to be valid diagnostic tools for Japanese and thus are useless for our purpose. Nonetheless, I want to point out that research on this issue must face the huge variability in the native speakers' judgments, a problem that puts through the wringer the reliability of any conclusions obtained.

### **4.3 Relative Clauses' internal size**

The sections 3.6, 3.7 and 3.8 of chapter 3 shed light on the internal structure of the RCs and in particular on their extension. Not every type of RC in Japanese has the same structure, some are larger than the others. In section 3.6 about the Nominative-Genitive conversion, I reported that the RCs that undergo NGC are smaller than those with a nominative subject. Akaso and Haraguchi 2010 demonstrate that clauses with a genitive subject aren't larger than TP, while clauses with nominative subject are larger than TP because they reach FocP, which is higher than TP. Contrary to gapped and gapless clauses, *to iu* and *to no*-sentences cannot undergo NGC: the latter must be therefore larger than the former, because they cannot stop at TP, but are full-fledged sentences marked by the declarative complementizer *to*.

As for the presence of modality expressions in the RC, I have already come to a conclusion at the end of chapter 3.7: gapped and gapless clauses have the same extension and reach the epistemic conjectural ModP (they cover the Quasi-modals and the epistemic Genuine modals in terms of Ueda 2008), but not higher projections. On the contrary, *to iu* and *to no*-relatives are as large as a declarative sentence and can contain every modal expression, including the highest two (imperative and hortative, or Utterance modals pace Ueda).

Regarding the presence of topics in the RC too, the conclusions are already expressed at the end of chapter 3.8: every type of RC, including the gapped ones, can contain a contrastive topic; gapped clauses cannot contain a thematic topic, and the same holds for gapless clauses but with less consistency; *to iu* and *to no*-sentences have no restrictions and can include the high thematic topic.

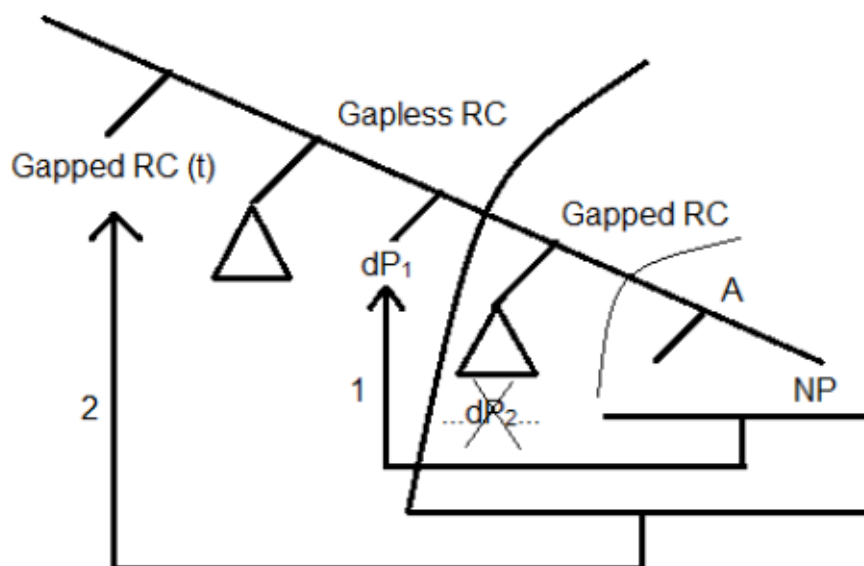
The analyses conducted in the last three sections of chapter 3 give therefore a consistent output: gapped RCs are limited to some extent (the highest projection between FocP, contrastive topic or epistemic conjectural ModP), while *to iu* and *to no*-relatives haven't such boundaries and are as large as declarative sentences. In chapter 1.2.3 I asserted that *to no*-clauses are smaller than the *to iu*-ones. Gapless clauses resembles very much the gapped ones about the size, but there are some clues in favour of the hypothesis that they are a bit larger than gapped relatives, because in some cases they accept a thematic topic. The five types of RC that I am treating in this dissertation fit into the following size hierarchy: *to iu* > *to no* > gapless > (gapped) NRRC/RRC.

#### **4.4 The cartography of the extended NP (reprise)**

According to the data collected the ordering of the five types of RC along the scale of their internal size overlaps with the order of their insertion point relative to the NP, or to be more precise, such ordering gives me a clue to complete the proposal for the cartography of the extended nominal projection. We know that NRRCs precede RRCs, and that *to iu*-sentences (tend to) precede the gapped clauses. There isn't clear-cut evidence for the position of a *to no*-clause with respect to a gapped one: example 21 in chapter 3.1 suggests the order gapped > *to no*, but it might be that the gapped clause raises over the other one,

because restrictive RCs are usually raised to a higher position. It stands to reason that *to no*-clauses originate near the *to iu*-clauses, since they are very similar and in some cases the two complementizers are interchangeable. The same reasoning holds of the mutual order between a gapped and a gapless clause: the surface order is gapped > gapless, but I consider that it is the result of the gapped clause raising over the gapless one. Such a circumstance might take place following the schemes in 22 or 23. Under 22 the gapped sentence (with  $dp_2$  deleted) raises alone above the other one. Under 23 the external head raises first to a position above the gapped clause but not above the gapless one, because there's no need to delete anything by c-command in the gapless clause, but only in the gapped one; then the remnant containing the gapped RC raises to its final position, as depicted in 25:

25)

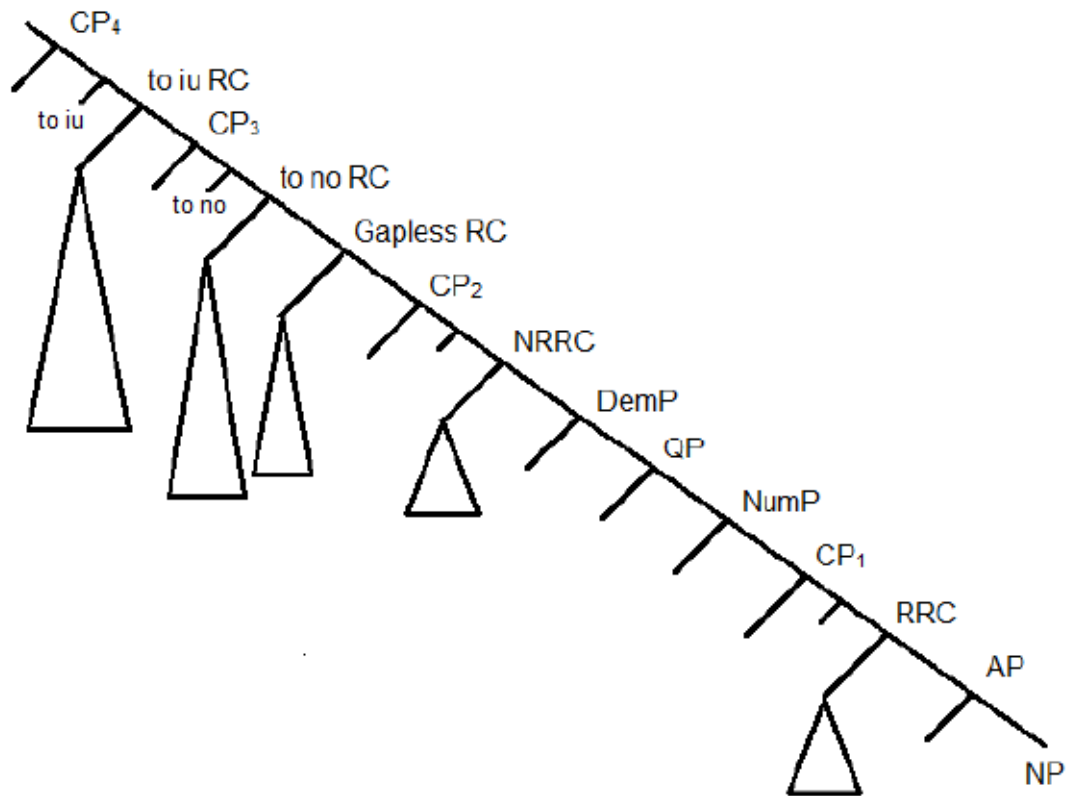


Regarding the original location of gapless RCs, I guess indeed that they stay in the middle between gapped and *to iu/to no*-sentences. The reason lies in the fact that they share some properties with the former (the possibility of NGC, the modal projections contained, the

unavailability of thematic topics -but with some meaningful exceptions), and some others with the latter (the absence of a gap and therefore a necessary derivation by matching, and the interchangeability with *to iu*-clauses in some cases).

In the end, summing up all the issues treated in this dissertation, I propose the following order of modifiers in the extended projection of a Noun Phrase:

- 26) *to iu* > *to no* > gapless > NRRC > DemP > QP > NumP >  
> RRC > AP > NP



Regarding the derivation pattern, I lean towards a matching analysis of the type reported in 23 (and 25). Under this configuration the external head has to raise over the gapped clauses in order to delete their internal head, and this first movement is the trigger for the following movement of the gapped RC that raises above other modifiers

(like *Dem* and *Q*) or clauses (as seen for the mutual order with gapless and *to no*-sentences). There is no evidence to exclude the derivation pattern illustrated in 22, but I personally believe it more difficult to uphold the movement of a specifier, such as the IP of a RC, from the middle of a hierarchy, while it is more natural that movements, both by simple raising and pied-piping, start from the bottom of an extended projection and trigger further transformation in a bottom-up fashion.



## 5. Conclusions

In this work I examined several properties of Relative Clauses in Japanese. The research was inspired by Cinque's proposal for a unified theory of RCs under a cartographic approach. My idea was to apply the linguistic tools described in Cinque 2008a and 2010b to Japanese. The results of the study do not refute in a substantial way Cinque's proposal, but highlight some questions that are worth considering further.

In the introductory chapter I described some general properties of Japanese RCs that I didn't include in the following dissertation, like the form of the predicate and the tense interpretation. Moreover, a categorization of Japanese RCs was provided along three axes: on the semantic level they divide into restrictive and nonrestrictive; on the morpho-syntactic level they divide into Head-External (HERC) and Head-Internal (HIRC); on the structural/logical level they divide into gapped and gapless clauses, and gapless clauses are further distinguished if they have or do have not an overt complementizer. Before going ahead with the investigation, I excluded HIRCs from the study by showing that they have some characteristics that led me to believe that they aren't real relative clauses. In the dissertation the term 'gapped clauses' coincided with the externally headed restrictive and nonrestrictive sentences; gapless clauses without complementizer were tagged barely as 'gapless' RCs, while those with a complementizer were called '*to iu/to no*-clauses'.

In chapter 2 I introduced the universal theory of RCs proposed by Cinque. His model makes available at the same time the two main derivational analyses presented in the past, the Raising one and the Matching one. Cinque includes the RCs among the various modifiers of the NP, and positions them into the following hierarchy:

1) NRRC>Q<sub>all</sub>>Dem>RRC>Num>RedRC>A>N

(Q, Dem, Num, A and N are phrases and the RCs are of the gapped type). The head of the RC is the modified NP, which is repeated identically inside the RC, the former being called dP<sub>1</sub> or External Head, and the latter dP<sub>2</sub> or Internal Head. The Raising Analysis implies that the overt head is the internal one that raises out of the RC, while the Matching Analysis considers the overt head the external one. These two derivational patterns are determinable by means of some diagnostic tools, like the presence of reconstruction effects (in favour of the Raising Analysis) and the availability of resumptive pronouns in place of the gap in the relative (in favour of the Matching Analysis).

In chapter 3 I chose eight issues about the behaviour of Japanese RCs that I find interesting and necessary to my goal. In the first section I tested the mutual order between a RC and the others modifiers of the head-noun, including other RCs. Interestingly, it turned out that some orders between Demonstrative, Numerals and Adjectives that must be impossible pace Cinque 2005, are (or at least seem) admissible in Japanese. In the second section I used the correlation between some types of topics and some types of genitives (already pointed out by Kuno 1973 among others) to put them on a continuous line: those high elements, if relativized, either form only a nonrestrictive RC, or cannot form a RC at all. In the third section I treated the well-known issue of the long distance relativization, which is possible in Japanese. The relative island violation is actually only apparent, because the relativized element is the Major Subject of the external sentence, and not a constituent of the most embedded clause. I added the analysis of the same phenomenon between a gapped and a gapless clause. The fourth section is about the availability of resumptive pronouns in place of the RC gap. The opinions in the literature aren't homogeneous, so I took my stand basing on my personal tests. Resumptive pronouns are not totally out for some informants, but they are generally not used,

because Japanese do not resort to pronouns in principle. Thus, I concluded that the investigation on resumptive pronouns is not a valid diagnostic tool for the Japanese case. Similarly, the research on the presence of reconstruction effects, faced in section five, is not very productive in Japanese. Reconstruction within an idiom chunk is affected by the fact that idiomatic expressions may be not modifiable due to independent properties, while the reconstruction between the relative head and a reflexive suffers from the existence of three types of reflexives in Japanese. Nonetheless there is the slight possibility to conclude that Japanese RCs do not show reconstruction effects, which is an argument against the Raising derivation. The last three sections of chapter 3 helped me to determine the internal size of the various types of RC. The analysis on the possibility of the nominative-genitive conversion, on the presence of modal projections and on the presence of topics inside the RCs divided them consistently into two groups: gapped and gapless clauses can undergo NGC, contain modal expression up to the Genuine Epistemic modals under Ueda 2008 labelling, and cannot host a thematic topic; on the other side *to iu/to no*-sentences cannot undergo NGC, but can contain every modal projection and also thematic topics. Besides, in section seven I compared the categorization of modal expression of Larm 2011 with the hierarchy of ModPs in Narrog 2009 and discovered that (Japanese) modal projections are ordered along the scale of subjectivity.

In the last chapter I matched the information collected in chapter 3 in order to come to a conclusion about the order of the various types of RCs in the hierarchy of the extended projection of the NP, and about the derivational pattern of those clauses. The conclusions are summarized as follows:

- 1) there are more clues in favour of a Matching derivation, although the diagnostic tools that I chose from Cinque's study are not appropriate for Japanese;

2) the hierarchy of the Japanese extended NP projection is

*to iu* > *to no* > gapless > NRRC > DemP > QP > NumP > RRC > AP > NP.

The mutual order of the RCs overlaps with the order of their internal size: the larger is a clause, the higher is it above the NP. A gapped (restrictive) RC tends to leave its original place and raise above other modifiers, but it is difficult to overcome the highest and biggest *to iu*-clause.

From the research on RCs a couple of collateral issues emerged. They concern the status of Quantifiers and Numerals in Japanese: their behaviour and their morpho-syntactic characteristics are different from the corresponding counterpart described in Cinque's works. On one hand, Japanese Quantifiers are basically Adjectives and are consistently found in a position lower than Demonstratives, contrary to the expectations generated by Cinque's model. On the other hand, Numerals, which are formed by sortal classifiers in Japanese, can occupy every position with respect to Demonstratives, Adjectives, Quantifiers and RCs, and this behaviour is considered strange under a cartographic point of view.

RCs are a very extensive subject for a research. This dissertation is no more than a small contribution to the matter and raises more questions than it solves, but it has maybe the merit to handle together every type of Japanese Relative Clause with respect to a bundle of issues, and it does so within the cartographic framework, which is not yet common among the linguistic studies on the Japanese language.

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## Estratto per riassunto della tesi di dottorato

L'estratto (max. 1000 battute) deve essere redatto sia in lingua italiana che in lingua inglese e nella lingua straniera eventualmente indicata dal Collegio dei docenti.

L'estratto va firmato e rilegato come ultimo foglio della tesi.

Studente: Alice Laura FRANCO

Matricola: 955734

Dottorato: Scienze del Linguaggio

Ciclo: 25°

Titolo della tesi<sup>1</sup>: A Cartographic Approach to Japanese Relative Clauses

Abstract:

Questo lavoro rappresenta un'analisi delle frasi relative in giapponese nel quadro teorico cartografico. Nel primo capitolo vengono classificati i tipi di frase relativa giapponese. Nel secondo capitolo viene presentata la proposta di Cinque per un modello descrittivo unitario delle frasi relative. Nel terzo capitolo viene analizzato il comportamento di ogni tipo di frase relativa giapponese relativamente ad otto argomenti: la posizione della frase nel sintagma nominale rispetto ad altri modificatori; la funzione sintattica originale del nome-testa all'interno della relativa; casi di relativizzazione di lunga distanza; la possibilità di inserire pronomi di ripresa al posto dell'elemento relativizzato; la presenza di effetti di ricostruzione tra la testa e la relativa; la possibilità di marcare il soggetto della relativa con il caso genitivo; la presenza di espressioni modali e topic all'interno della relativa. Nel quarto capitolo si esamina se le strategie di relativizzazione in giapponese siano correttamente descritte dal modello di Cinque.

### English version

The present work is an analysis of Japanese Relative Clauses within the cartographic theoretical framework. In the first chapter I classify the various types of Japanese Relative Clause. In the second chapter I describe Cinque's proposal for a unified theory of Relative Clauses. In the third chapter I analyze the behaviour of each type of Japanese Relative Clause with respect to eight issues: the position of the Relative Clause in the Noun Phrase compared to other modifiers; the syntactical function of the head-noun in its original position; cases of long-distance relativization; the possibility to insert a resumptive pronoun in place of the gap in the relative; the presence of reconstruction effects between the head and the relative; the possibility of the nominative/genitive conversion for the relative's subject; the presence of modal expressions and topics inside the Relative Clause. In the fourth chapter I examine if Cinque's model describes accurately the relativization strategies in Japanese.

Firma dello studente

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<sup>1</sup> Il titolo deve essere quello definitivo, uguale a quello che risulta stampato sulla copertina dell'elaborato consegnato.