

eScholarship

Japanese/Korean Linguistics

Title

Mixed Chains in Japanese Relative Clauses

Permalink

<https://escholarship.org/uc/item/8hb973xd>

Journal

Japanese/Korean Linguistics, 32(1)

Author

Hirasawa, Yuko

Publication Date

2026-07-31

DOI

10.5070/J7.67726

Copyright Information

This work is made available under the terms of a Creative Commons Attribution-NonCommercial-NoDerivatives License, available at <https://creativecommons.org/licenses/by-nc-nd/4.0/>

Mixed Chains in Japanese Relative Clauses*

YUKO HIRASAWA

Georgetown University

1 Introduction

It is well-known that Japanese relativization is insensitive to Ross’s (1967) island constraints. One example is shown in (1), where the head noun ‘sinsi’ is related to a position inside another relative clause (RC). I refer to this particular type of (apparent) island violation—where relativization crosses an RC island—a *double relative clause*, following Han and Kim (2004).¹

- (1) [RC island $__i$ $__k$ kiteiru] yoohuku_k-ga yogoreteiru sinsi_i
[RC island $__i$ $__k$ wearing] suit_k-NOM dirty gentleman_i
‘the gentleman_i that the suit that $__i$ is wearing $__k$ is dirty’ (Kuno 1973: 239)

Two major proposals have been made to account for double relative clauses. One is that island-insensitive RCs in Japanese generally involve a null resumptive pronoun in the variable site (e.g., Perlmutter 1972; Saito 1985; Whitman 2013). Under this line of analysis, (1) can be analyzed as

¹ Japanese relativization exhibits island insensitivity in other types of islands, including *wh*-islands and adjunct islands (see Kuno, 1973 and Hoshi, 2004 esp. footnote 5).

* This work builds on my first qualifying paper. I am very grateful to Matt Hewett and Ruth Kramer for their insightful discussions and valuable feedback throughout the development of this project. I also wish to thank the audience at the Georgetown Syntax Reading Group for their helpful comments during my practice talk.

in (2), where a base-generated operator binds a null resumptive *pro* in the variable site. The second line of analysis argues that double relative clauses in particular—unlike relativization across other types of islands—are formed by extracting a broad subject from a multiple subject construction (MSC) available in the language (e.g., Kuroda 1986; Ishii 1991; Sakai 1994; Hoshi 2004 for Japanese and Han and Kim 2004 for Korean). Under this approach, (1) is analyzed as in (3), where an operator moves from a broad subject position that is structurally higher than the canonical subject. No island effects arise because this movement does not cross an island boundary.

(2) *The null resumptive pro analysis*

[Op_i [RC island *pro*_i ____k kiteiru yoohuku_k]-ga yogoreteiru] sinsi_i
 [Op_i [RC island *pro*_i ____k wearing suit_k]-NOM dirty]] gentleman_i
 ‘the gentleman_i that the suit that ____i is wearing ____k is dirty’

(3) *The broad subject analysis*

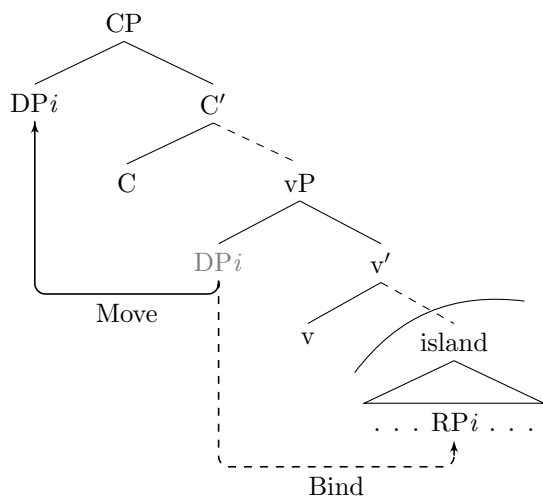
[Op_i [t_i [RC island *pro*_i ____k kiteiru yoohuku_k]-ga yogoreteiru]] sinsi_i
 [Op_i [t_i [RC island *pro*_i ____k wearing suit_k]-NOM dirty]] gentleman_i
 ‘the gentleman_i that the suit_k that ____i is wearing ____k is dirty’

In this paper, I present a novel argument against the broad subject analysis of double relative clauses. In particular, I show evidence from reconstruction effects that the head noun in double relative clauses in Japanese obligatorily reconstructs into an intermediate position of the A'-chain below the highest subject but above the island.² The broad subject analysis fails to account for this new empirical observation, since the relative operator in this analysis is base-generated in and moves from a position higher than the subject and therefore is never c-commanded by the highest subject. I argue instead that the variable site of double relative clauses always contains a resumptive *pro*, and that the intermediate reconstruction effect follows if we posit an obligatory mixed chain, as in (4), in which an operator is base-generated in a specifier of vP below the highest subject and binds a resumptive *pro* inside the island before subsequently undergoing movement.³

(4) *A mixed chain*

² I focus on double relative clauses in this paper; however, the intermediate reconstruction of the head noun is observed with relativization across other types of islands such as *wh*-island and adjunct island.

³ Mixed chains are attested in other languages including Selayarese (Finer, 1997), Irish (McCloskey 2002) and French (Hewett 2023) among others.



The rest of the paper is organized as follows. Section 2 presents data on reconstruction effects. Section 3 develops a mixed-chain analysis. Section 4 elucidates why the broad subject analysis cannot account for the intermediate reconstruction effects. Section 5 summarizes the proposal and its broader implications.

2 Reconstruction Effects in Double Relative Clauses

In this section, I use reconstruction as a diagnostic for movement, following works such as Aoun, Choueiri, and Hornstein (2001) and Sichel (2014).⁴ Reconstruction is available wherever a copy of the displaced element is created by movement, including any intermediate positions along the A'-dependency (Barss 1986; Chomsky 1993). In Japanese RCs, this approach is supported by the fact that the availability of reconstruction strictly correlates with island sensitivity.⁵ I show below that reconstruction is systematically absent in the variable site inside an island (section 2.1), but it is obligatory in the intermediate landing site below the highest subject above an island (section 2.2). The reconstruction effects to be examined include reconstruction with (i) anaphor binding, (ii) variable binding, and (iii) Condition C effects.

2.1 Absence of Reconstruction into the Bottom of the Chain inside an Island

This section provides evidence for the lack of movement in the bottom of the dependency crossing an island by showing that the head noun in double relative clauses fails to reconstruct to the lowest variable site, regardless of the presence or absence of an overt resumptive pronoun.

First, consider reconstruction with anaphor binding with *zibun-zisin*. A reflexive *zibun-zisin* requires a c-commanding antecedent in the subject position (Nakamura 1989; Kishida 2011).

⁴ Compare this with analyses such as Guillot and Malkawi (2011) and Hewett (2023), which attribute reconstruction effects to a resumptive pronoun interpreted as an E-type anaphor. I argue against an E-type analysis for the Japanese RCs, since reconstruction obtained via E-type anaphora is island-insensitive, contrary to the Japanese data presented in this section.

⁵ Reconstruction to the variable site is always possible in local relative extraction in the absence of islands (see Ishii 1991).

For *zibun-zisin* within the head noun to be bound by the subject inside the relative clause island ('the person'), the head noun must be interpreted within the subject's c-command domain. However, in the example in (5), coreference between *zibun-zisin* and the subject inside the island is impossible, indicating that the head noun fails to reconstruct to the variable site. Note that the corresponding baseline sentence in (6) without the reflexive is fully grammatical.

(5) *Anaphor binding with zibun-zisin*

*Yumi-ga [RC island $\text{---}_k \{ \text{---}_i / \text{sore}_i\text{-o} \}$ seisakusita] hito_k-o sitteiru
 Yumi-NOM [RC island $\text{---}_k \{ \text{---}_i / \text{it}_i\text{-ACC} \}$ created] person_k-ACC know
 [zibun-zisin_k-no horaa eiga]_i-wa senshuu koukaisareta bakari da.
 [self-self_k-GEN horror movie]_i-TOP last.week was.released just COP
 (Int.) '[Self_k's horror movie]_i that Yumi knows the person_k who ---_k created $\{ \text{---}_i / \text{it}_i \}$ had just been released last week.'

(6) Yumi-ga [RC island $\text{---}_k \{ \text{---}_i / \text{sore}_i\text{-o} \}$ seisakusita] hito_k-o sitteiru
 Yumi-NOM [RC island $\text{---}_k \{ \text{---}_i / \text{it}_i\text{-ACC} \}$ created] person_k-ACC know
 (sono) horaa eiga_i-wa senshuu koukaisareta bakari da.
 (the) horror movie_i-TOP last.week was.released just COP
 'The horror movie_i that Yumi knows the person_k who ---_k created $\{ \text{---}_i / \text{it}_i \}$ had just been released last week.'

The second reconstruction effect to be investigated concerns variable binding. To obtain a bound-variable reading between *zibun-zisin* in the head noun and a quantificational phrase in the RC, the head noun must be interpreted within the scope of the quantifier. As shown in (7), however, no such reading is available, indicating that the head noun does not reconstruct to the variable site.

(7) *Variable binding*⁶

*Yumi-ga [RC island $\text{---}_k \{ \text{---}_i / \text{sore}_i\text{-o} \}$ seisakusita] dono-hito_k-mo
 Yumi-NOM [RC island $\text{---}_k \{ \text{---}_i / \text{it}_i\text{-ACC} \}$ created] every-person_k-MO
 sitteiru [zibun-zisin_k-no horaa eiga]_i-wa senshuu
 know [self-self_k-GEN horror movie]_i-TOP last.week
 koukaisareta bakari da.
 was.released just COP
 (Int.) '[Self_k's horror movie]_i that Yumi knows every person_k who ---_k created $\{ \text{---}_i / \text{it}_i \}$ had just been released last week.'

The third reconstruction test involves Condition C effects, which examines whether an R-expression contained in the head noun induces a Condition C violation with respect to a pronoun inside the RC. As shown in (8), no such violation arises, indicating that the head noun is interpreted in its surface position and does not reconstruct to the variable site.⁷

⁶ I gloss *mo* as MO, following standard practice. It functions as a universal quantificational particle in *dare-mo* 'everyone' and *dono-kantoku-mo* 'every director.'

⁷ A non-coindexed reading, in which the pronoun bears a free index, is also available for the same sentence.

(8) *Condition C effects*

Yumi-ga	[RC island $__k$ { $__i$ / sore _i -o} seisakusita]	kare _k -o	sitteiru
Yumi-NOM	[RC island $__k$ { $__i$ / it _i -ACC} created]	he _k -DAT	know
[Hiro _k -no	horaa eiga] _i -wa	senshuu	koukaisareta bakari da.
[Hiro _k -GEN	horror movie] _i -top	last.week	was.released just COP

‘[Hiro_k’s horror movie]_i that Yumi knows he_k who $__k$ created { $__i$ / it_i} had just been released last week.’

Taken together, the three reconstruction tests demonstrate the absence of reconstruction into the variable site inside the island. I take this to indicate that the variable site contains a base-generated resumptive *pro* and that the dependency to the bottom of the chain does not involve movement.

2.2 Obligatory Reconstruction into an Intermediate Position of the Chain

In some languages, resumptive A'-dependencies exhibit movement properties, and evidence shows that movement and resumption can combine into a single dependency, forming a ‘mixed chain’ (see especially Finer 1997; McCloskey 2002; Hewett 2023). I now turn to whether this pattern is also found in Japanese relative clauses, testing whether the head noun in double relative clauses reconstructs to an intermediate position along the path of the A'-chain.

I first examine reconstruction with anaphor binding involving *zibun-zisin*. In (9), coreference between *zibun-zisin* inside the head noun and the highest subject of a relative clause ‘Yumi’ is possible. This indicates that the head noun reconstructs to a position below the subject, where the subject can c-command *zibun-zisin*.⁸ Crucially, this reconstruction site must be above the island, since reconstruction to the bottom of the chain is not permitted, as shown in (5).

(9) *Anaphor binding with zibun-zisin*

Yumi _m -ga	[RC island $__k$ { $__i$ / sore _i -o} mita]	hito _k -ni	kansoo-o
Yumi _m -NOM	[RC island $__k$ { $__i$ / it _i -ACC} watched]	person _k -DAT	opinions-ACC
tazuneta	[zibun-zisin _m -no	horaa eiga] _i -wa	senshuu
asked	[self-self _m -GEN	horror movie] _i -TOP	last.week
just			was.released
just			COP

‘[Self_m’s horror movie]_i that Yumi_m asked for opinions from the people_k who $__k$ watched { $__i$ / it_i} had just been released last week.’

Next, consider reconstruction with respect to variable binding. In (10), the reflexive *zibun-zisin* inside the head noun is bound by a quantificational subject of a relative clause to yield a bound-variable reading. This reading is possible only if the head noun reconstructs to a position within the subject’s c-command domain. Again, this intermediate position must be outside the island.

⁸ Note that the coindexed reading is obligatory in this example. If *zibun* is used in place of *zibun-zisin*, the reflexive *zibun* can bear a different index, for example referring to the speaker.

(10) *Variable binding*

Dono-kantoku_m-mo [RC island $__k$ { $__i$ / sore_i-o} mita] hito_k-ni
 every-director_m-MO [RC island $__k$ { $__i$ / it_i-ACC} watched] person_k-DAT
 kansoo-o tazuneta [zibun-zisin_m-no horaa eiga]_i-wa senshuu
 opinions-ACC asked [self-self_m-GEN horror movie]_i-TOP last.week
 koukaisareta bakari da.
 was.released just COP
 ‘[Self_m’s horror movie]_i that every director_m asked for opinions from the people_k who $__k$
 watched { $__i$ / it_i} had just been released last week.’

Lastly, I examine reconstruction with Condition C effects. As shown in (11), an R-expression inside the head noun induces a Condition C violation with respect to the pronoun in the highest subject position, rendering the coindexed reading ungrammatical. This provides evidence that the head noun obligatorily reconstructs into an intermediate position where the R-expression is bound by the subject that is outside the island.

(11) *Condition C effects*

*Kanozyo_m-ga [RC island $__k$ { $__i$ / sore_i-o} mita] hito_k-ni kansoo-o
 she_m-NOM [RC island $__k$ { $__i$ / it_i-ACC} watched] person_k-DAT opinions-ACC
 tazuneta [Yumi_m-no horaa eiga]_i-wa senshuu koukaisareta
 asked [Yumi_m-GEN horror movie]_i-TOP last.week was.released
 bakari da.
 just COP
 (Int.) ‘[Yumi_m’s horror movie]_i that she_m asked for opinions from the people_k who $__k$
 watched { $__i$ / it_i} had just been released last week.’

The three reconstruction tests considered in this section all show that the intermediate position below the highest subject and above the island is available for reconstruction. The reconstruction test with Condition C effects further demonstrates that reconstruction to this intermediate position is obligatory, indicating that double relative clauses in Japanese always involve movement of an operator from this position, even though movement from the variable site inside the island is not permitted. This observation motivates a mixed-chain analysis, which is developed in the next section.

3 Analysis: Mixed Chains

This section offers an analysis that accounts for the empirical observations documented in Section 2. Given that intermediate reconstruction is obligatory, I propose that double relative clauses in Japanese are uniformly formed by a mixed chain involving base-generation followed by movement (Finer 1997; McCloskey 2002; Hewett 2023). Specifically, I propose that a relative operator is first base-generated at the highest specifier of vP inside the relative clause, where it binds the resumptive *pro* in the variable site, and then moves successive-cyclically to the specifier of C. I argue that base-generating the operator in [Spec, vP] is motivated by the fact that C and v are often claimed to be phase heads, and an operator base-generated at the vP phase edge can escape the

phase and remain accessible for subsequent movement to a higher position without violating locality constraints.

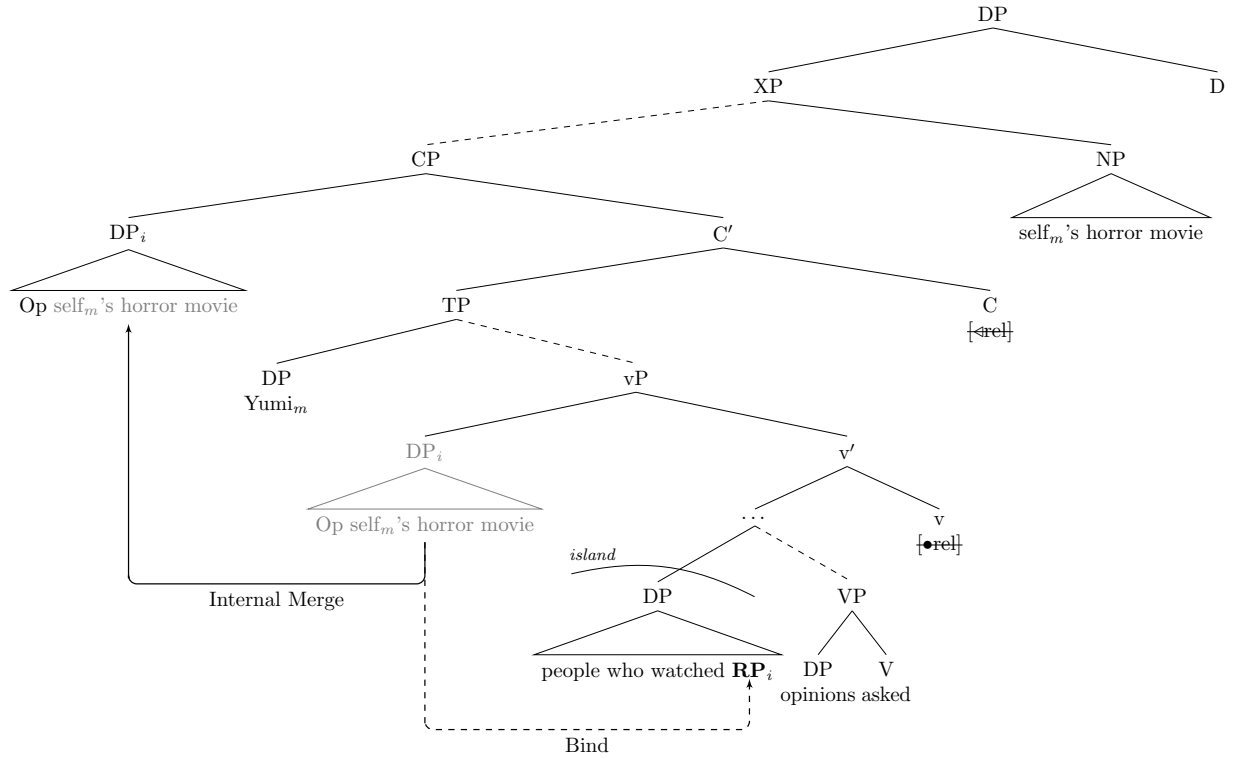
To formalize the analysis, I adopt the feature-driven system of Merge (see also McCloskey 2002; Abels 2012; Georgi 2017; van Urk 2020; Hewett 2023), in which Merge is triggered by features on heads. In particular, I follow Hewett (2023) in taking internal Merge to be triggered by a ‘ $\triangleleft$ ’ (read *arrow*) feature, whereas external Merge is triggered by a ‘ $\bullet$ ’ (read *bullet*) feature. In relativization, heads bear either [$\triangleleft$ rel] or [$\bullet$ rel] features, triggering internal and external Merge of a phrase with a matching [rel] feature, respectively. For the [rel] feature on the head noun, I assume that all lexical items that can serve as the heads of relativizable constituents (e.g., DPs) appear in two versions in the lexicon: one lacking [rel] and one bearing [rel], with the latter selected in the formation of relative clauses.

3.1 Deriving Intermediate Reconstruction in Double Relative Clauses

I now turn to how the intermediate reconstruction effects are derived under the mixed chain analysis. The tree in (12b) illustrates the structure of a double relative clause in which *zibun-zisin* inside the head noun is bound by the highest subject for anaphor binding. In (12b), a [$\bullet$ rel] feature on *v* triggers base-generation of a relative operator in its specifier. This operator binds the resumptive pronoun inside the island and then successive-cyclically moves to [Spec, CP] to check the [$\triangleleft$ rel] feature on C. Because the lower subchain involves binding without movement, it shows no island sensitivity. However, reconstruction to the intermediate position is possible for anaphor binding, since a copy of the moved operator is present in the position c-commanded by the subject ‘Yumi.’ Following a head-raising analysis of relative clauses (Bhatt 2002), the NP complement to the null operator D raises out of the relative CP; although this movement is shown in (12b), it is not marked with a movement arrow.

- (12) a. Yumi_m-ga [RC island $__k$ { $__i$ / sore_i-o} mita] hito_k-ni
 Yumi_m-NOM [RC island $__k$ { $__i$ / it_i-ACC} watched] person_k-DAT
 kansoo-o tazuneta [zibun-zisin_m-no horaa eiga]_i
 opinions-ACC asked [self-self_m-GEN horror movie]_i
 ‘[self_m’s horror movie]_i that Yumi_m asked for opinions from the people_k who $__k$ watched
 { $__i$ / it_i}’

b.



The mixed chain analysis extends to the intermediate reconstruction effects with variable-binding and Condition C effects. The anaphor *zibun-zisin* inside the head noun can be interpreted at [Spec, vP], where it is bound by a quantificational subject for a bound-variable reading. Likewise, an R-expression inside the head noun induces a Condition C violation, since the head noun is obligatorily interpreted and bound by a pronoun in the highest subject position.

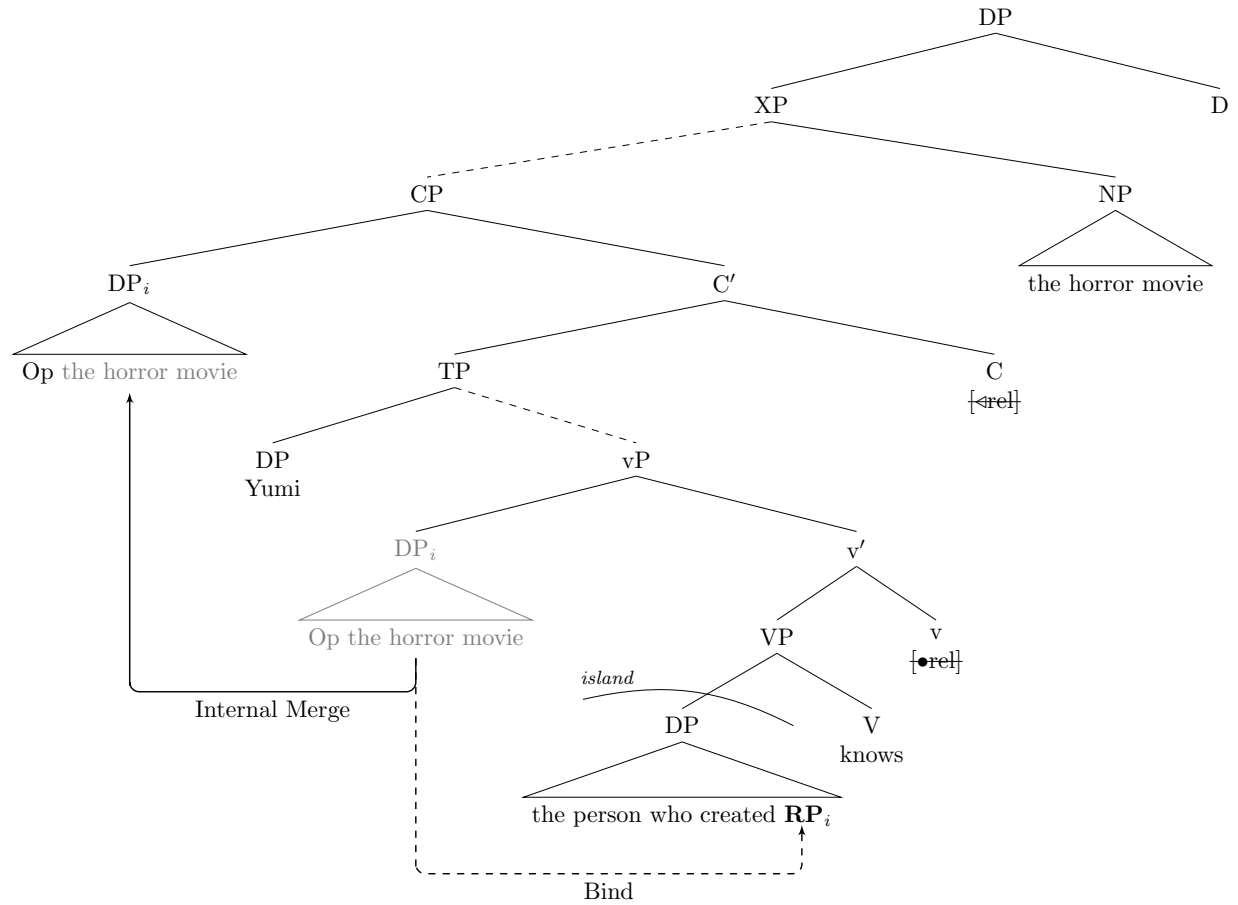
3.2 Deriving the Lack of Reconstruction into the Variable Site

The absence of reconstruction into the bottom of the chain is explained in the present analysis because the lower, island-crossing dependency is always formed via binding of a resumptive pronoun rather than movement. As the tree in (13b) illustrates, a double relative clause is grammatical when the relative operator base-generated at [Spec, vP] binds the resumptive pronoun inside the island. However, since no copy of a moved operator is present at the lowest variable site, if the head noun contains the anaphor *zibun-zisin*, as in (14), it cannot be bound by the subject inside the island, and the coreferential reading is impossible.

- (13) a. Yumi-ga [RC island $__k$ { $__i$ / sore_i-o } seisakusita] hito_k-o sitteiru
 Yumi-NOM [RC island $__k$ { $__i$ / it_i-ACC } created] person_k-ACC know
 (sono) horaa eiga_i
 (the) horror movie_i

‘the horror movie_i that Yumi knows the person_k who ___k created {___i / it_i}’

b.



- (14) *The coreference between zibun-zisin and the subject inside the island is impossible*
 *Yumi-ga [RC island ___k {___i / sore_i-o} seisakusita] hito_k-o sitteiru
 Yumi-NOM [RC island ___k {___i / it_i-ACC} created] person_k-ACC know
 [zibun-zisin_k-no horaa eiga]_i
 [self-self_k-GEN horror movie]_i
 (Int.) ‘[self_k’s horror movie]_i that Yumi knows the person_k who ___k created {___i / it_i}’

For the same reason that a resumptive pronoun, not a copy of a moved operator, occupies the variable site inside the island, the head noun cannot reconstruct into the bottom of the chain for variable binding or Condition C effects.

4 Against the Broad Subject Analysis

The mixed chain analysis of double relative clauses successfully explains the attested intermediate reconstruction effects. This section considers the alternative broad subject analysis and argues that it fails to explain the novel reconstruction facts.

4.1 The Broad Subject Analysis and Multiple Subject Constructions (MSC)

Japanese allows an additional subject, known as a broad subject, which is standardly taken to occupy an A-position in outer [Spec, TP] in an MSC (Kuno 1973; Kuroda 1986; Heycock 1993; Heycock and Doron 2003). An example is given in (15).

- (15) Mary-ga kami-ga nagai (koto)
 Mary-NOM hair-NOM long (fact)
 ‘(The fact that) Mary has long hair.’ (Heycock and Doron 2003: 97)

It has been proposed that double relative clauses are derived from an MSC by moving an operator from the broad subject position (i.e., outer [Spec, TP]) to [Spec, CP]. Example (16) presents a double relative clause analyzed under this approach, and (17) provides the corresponding MSC, from which (16) is derived.

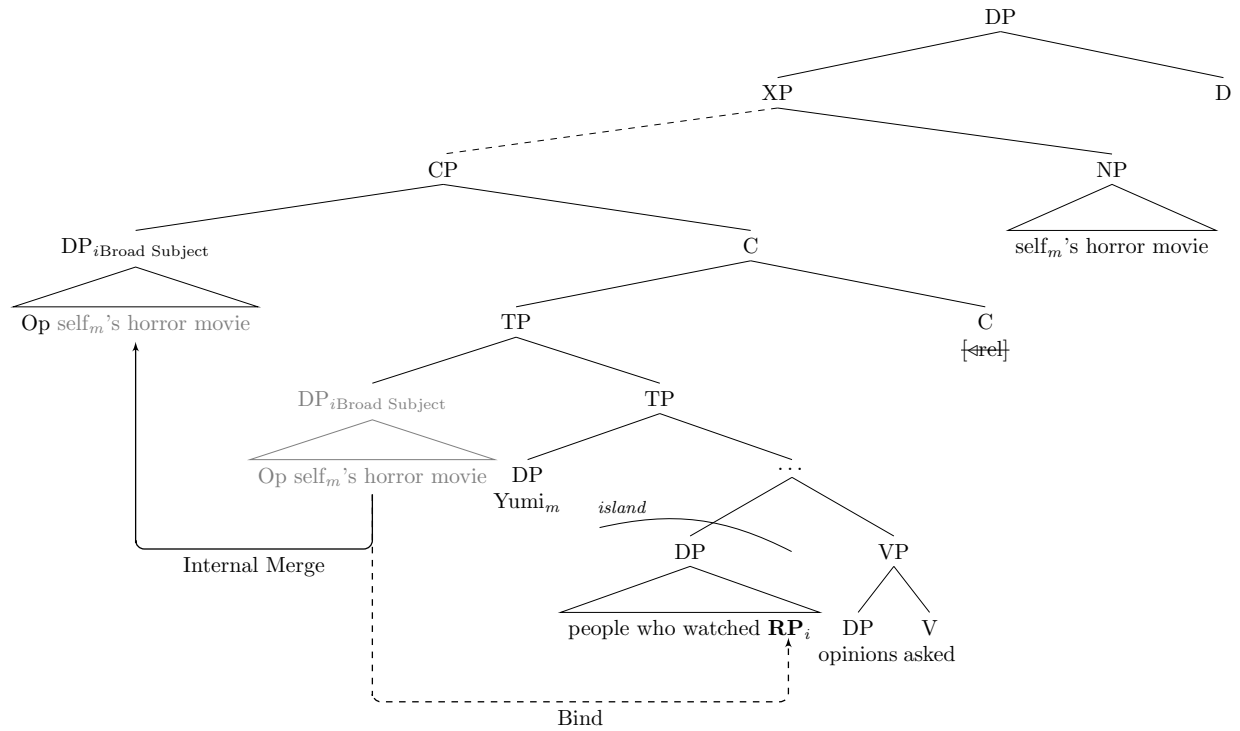
- (16) *A broad subject analysis of (1) (to be rejected)*
 [CP Op_i [TP t_i [TP [RC island *pro*_i ____k kiteiru yoohuku_k]-ga yogoreteiru]]] sin_i_i
 [CP Op_i [TP t_i [TP [RC island *pro*_i ____k wearing suit_k]-NOM dirty]]] gentleman_i
 ‘the gentleman_i that the suit_k that ____i is wearing ____k is dirty’

- (17) *Corresponding MSC*
 [TP [Broad Subject Sono sin_i]_i-ga [TP [*pro*_i ____k kiteiru yoohuku_k]-ga yogoreteiru.]]
 [TP [Broad Subject the gentleman]_i-NOM [TP [*pro*_i ____k wearing] suit_k]-NOM dirty]]
 ‘The gentleman_i is such that the suit_k that ____i is wearing ____k is dirty.’

Assuming that a relative operator originates in the broad subject position, we immediately face a problem for intermediate reconstruction: the highest subject cannot bind *zibun-zisin* inside the head noun, since the operator moves from a position that is higher than the subject of the relative clause in (18b).

- (18) a. Yumi_m-ga [RC island ____k {____i / sore_i-o} mita] hito_k-ni
 Yumi_m-NOM [RC island ____k {____i / it_i-ACC} watched] person_k-DAT
 kansoo-o tazuneta [zibun-zisin_m-no horaa eiga]_i
 opinions-ACC asked [self-self_m-GEN horror movie]_i
 ‘[self_m’s horror movie]_i that Yumi_m asked for opinions from the people_k who ____k watched {____i / it_i}’

b.



Additionally, the corresponding MSC, which is taken to serve as the base structure for (18), is ungrammatical, as shown in (19).

- (19) *

[Broad Subject	Sono	zibun-zisin _m -no	horaa eiga] _i -ga	Yumi-ga
[Broad Subject	the	self-self _m -GEN	horror movie] _i -NOM	Yumi _m -NOM
[RC island	___ _k	{___ _i /sore _i -o}	mita]	hito _k -ni kansoo-o tazuneta.
[RC island	___ _k	{___ _i /it _i -ACC}	watched	person _k -DAT opinions-ACC asked

(Int.) 'As for [self_m's horror movie]_i that Yumi_m asked for opinions from the people_k who ____k watched {____i / it_i}.'

Given that the corresponding MSC is ungrammatical, the broad subject analysis cannot be maintained. In contrast, the mixed chain analysis, which posits movement of an operator from [Spec, vP], can explain the pattern since this position is lower than the highest subject.

5 Conclusion

In this paper, I have argued that double relative clauses—relativization crossing a relative clause island—in Japanese are uniformly derived by 'mixed chains,' long-distance A'-dependencies formed by base-generation followed by movement. This conclusion rests on novel evidence from reconstruction effects showing that the head noun obligatorily reconstructs into an intermediate

position of the A'-chain, below the highest subject but above the island, while reconstruction into the variable site inside an island is systematically absent.

The present analysis has implications for the syntax of Japanese relativization. Even in island-insensitive contexts, where the dependency appears to be formed via a resumptive *pro* at the variable site, the relative C head in double relative clauses bears a movement-inducing [$\langle \text{rel} \rangle$] feature. This suggests that Japanese relativization *always* involves movement, at least in the higher portion of the chain.

Typologically, the presence of mixed chains in Japanese contributes a novel pattern. Unlike languages that entirely lack mixed chains, or those in which mixed chains are optional (see Hewett 2023, esp. Section 3.5 for discussion of these patterns and the typology of intermediate heads), Japanese employs mixed chains *obligatorily* in double relatives. Within the feature-driven system of Merge adopted here, this indicates that Japanese relativization lacks an intermediate head with a movement-inducing feature that would otherwise allow a full movement-based chain. This raises further questions for the broader A'-system of Japanese, for example, whether other dependencies (e.g., *wh*-movement, scrambling, and topicalization) have inventories of intermediate features different from relativization. Examining the full range of Japanese A'-dependencies provides a valuable avenue for future research and for clarifying how mixed chains are used in the language.

References

- Abels, K. 2012. *Phases: An Essay on Cyclicity in Syntax*. Berlin: de Gruyter.
- Aoun, J., L. Choueiri, & N. Hornstein. 2001. Resumption, Movement, and Derivational Economy. *Linguistic Inquiry* 32:371–403.
- Barss, A. 1986. *Chains and Anaphoric Dependence: On Reconstruction and Its Implications*. PhD diss., MIT.
- Bhatt, R. 2002. The Raising Analysis of Relative Clauses: Evidence from Adjectival Modification. *Natural Language Semantics* 10:43–90.
- Chomsky, N. 1993. A Minimalist Program for Linguistic Theory. *The View from Building 20: Essays in Linguistics in Honor of Sylvain Bromberger*, ed. K. Hale & S. J. Keyser, 1–52. Cambridge, MA: MIT Press.
- Finer, D. L. 1997. Contrasting $\bar{A}$ -dependencies in Selayarese. *Natural Language & Linguistic Theory* 15:677–728.
- Georgi, D. 2017. Patterns of Movement Reflexes as the Result of the Order of Merge and Agree. *Linguistic Inquiry* 48:585–626.
- Guilliot, N., & N. Malkawi. 2011. Weak Versus Strong Resumption: Covarying Differently. *Resumptive Pronouns at the Interfaces*, 395–424. Amsterdam: John Benjamins.
- Han, C.-h., & J.-B. Kim. 2004. Are There “Double Relative Clauses” in Korean? *Linguistic Inquiry* 35:315–37.
- Hewett, M. 2023. Types of Resumptive A'-Dependencies. PhD diss., University of Chicago.
- Heycock, C. 1993. Syntactic Predication in Japanese. *Journal of East Asian Linguistics* 2:167–211.
- Heycock, C., & E. Doron. 2003. Categorical subjects. *Gengo Kenkyū* 123:95–135.
- Hoshi, K. 2004. Remarks on N-Final Relativization in Japanese. *English Language and Literature* 44:113–47.

- Ishii, Y. 1991. Operators and Empty Categories in Japanese. PhD diss., University of Connecticut.
- Kishida, M. 2011. Reflexives in Japanese. PhD diss., University of Maryland, College Park.
- Kuno, S. 1973. *The Structure of the Japanese Language*. Cambridge, MA: MIT Press.
- Kuroda, S.-Y. 1986. Movement of Noun Phrases in Japanese. *Issues in Japanese Linguistics*, ed. T. Imai & M. Saito, 229–71. Dordrecht: Foris.
- McCloskey, J. 2002. Resumption, Successive-Cyclicity, and the Locality of Operations. *Derivation and Explanation in the Minimalist Program*, ed. S. D. Epstein & T. D. Seely, 184–226. Oxford: Blackwell.
- Nakamura, M. 1989. Reflexives in Japanese. *Gengo Kenkyū* 95:206–30.
- Perlmutter, D. M. 1972. Evidence for Shadow Pronouns in French relativization. *The Chicago Which Hunt: Papers from the Relative Clause Festival*, ed. P. M. Peranteau, J. N. Levi & G. C. Phares, 73–105. Chicago: Chicago Linguistic Society.
- Ross, J. R. 1967. Constraints on Variables in Syntax. Doctoral dissertation, MIT.
- Sakai, H. 1994. Complex NP Constraint and Case-Conversions in Japanese. *Current Topics in English and Japanese*, 179–200.
- Saito, M. 1985. Some Asymmetries in Japanese and their Theoretical Implications. PhD diss., MIT.
- Sichel, I. 2014. Resumptive Pronouns and Competition. *Linguistic Inquiry* 45:655–93.
- van Urk, C. 2020. Successive Cyclicity and the Syntax of Long-Distance Dependencies. *Annual Review of Linguistics* 6:111–30.
- Whitman, J. 2013. The Prehead Relative Clause Problem. *MIT Working Papers in Linguistics* 67:361–80.