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On Internally Headed Relative Clauses in Japanese and Navajo

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Abstract: Comparisons are made between internally headed relative clauses (IHRCs) in Japanese and those in Navajo. An array of fundamental semantic differences is found to exist between them, which presents an empirical challenge to any attempt to subsume both the Japanese and the Navajo IHRCs under one typological group.

Key words: Internally Headed Relative Clause, Japanese, Navajo, typology, IHRC, HIRC

1. Introduction

It has been observed that Japanese and Navajo have two types of relativization, exemplified in (1) and (2), where the head of a relative clause is underlined.¹

(1) a. *Internally Headed Relative Clause in Japanese*

John-wa [[ringo-ga sara-no ue-ni at-ta] no]-o toriage-ta.
John-Top [[apple-Nom plate-Gen upper.area-at be-Past] Nmn]-Acc pick.up-Past
'John picked up an apple, which was on a plate.'

b. *Internally Headed Relative Clause in Navajo*

['adááadáá' hastiin dahneeshj[d-éé] yidloh
[yesterday man jump-Nmn] is.laughing
'The man who jumped yesterday is laughing.' (Platero 1978: 12)

(2) a. *Externally Headed Relative Clause in Japanese*

John-wa [sara-no ue-ni [_{NP e_i}] at-ta] ringo-o toriage-ta.
John-Top [plate-Gen upper.area-at [_{NP e_i}] be-Past] apple-Acc pick.up-Past
'John picked up an apple which was on a plate.'

b. *Externally Headed Relative Clause in Navajo*

['adááadáá' [_{NP e_i}] dahneeshj[d-éé] hastiin yidloh
[yesterday [_{NP e_i}] jump-Nmn] man is.laughing
'The man who jumped yesterday is laughing.' (Platero 1978: 12)

In each of the sentences in (1) the head of the relative clause (i.e., *ringo* 'apple' in (1a) and *hastiin* 'man' in (1b)) is inside the relative clause itself. Thus, this type of clause is called the *internally headed relative clause* (IHRC). In (2), in contrast, the head in each sentence is outside the relative clause and the corresponding empty NP is inside the relative clause. This type of relative clause is called the *externally headed relative clause* (EHRC).

In this paper we will show that there exist a number of fundamental semantic differences between the Japanese and the Navajo IHRCs, most of which have gone unnoticed. The rest of the paper is organized as follows: in section 2, drawing on examples from Japanese, we will examine two universal properties and five language-specific properties of IHRCs. In section 3, we will see if the Navajo IHRC exhibits the same range of behavior as the Japanese IHRC. Section 4 concludes the paper by summarizing the results and commenting on

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¹ Key to morphological glosses used in the examples reported in the body of the paper: for Japanese data: Accusative (Acc), Genitive (Gen), Locative (Loc), Nominalizer (Nmn), Nominative (Nom), Past tense (Past), Present tense (Pres), Progressive (Prog), Topic (Top); for Navajo data: Imperfective (imp), Nominalizer (Nmn), Singular (S), 3rd person (3). In the sentential glosses, either non-restrictive relative clauses or coordinate clauses are used for Japanese IHRCs.

some of their implications.²

2. Conditions on IHRCs in Japanese

2.1. Universal Conditions on IHRCs

There are at least two conditions that IHRCs in any language must obey. The condition we will examine first is the following:

(3) [P-1] *Argument Condition*

The IHRC is a nominalized sentence that functions as a syntactic argument to the main predicate.

In the Japanese IHRC, *no* is used as a nominalizer. Observe (4):

- (4) Sue-wa [otoko-ga deteik-outosi-ta] no-o tukamae-ta.
 Sue-Top [otoko-Nom leave-be.about.to-Past] Nmn-Acc catch-Past
 ‘Sue caught a man, who was about to leave.’

Note that the sequence inside the brackets is an independent sentence, as shown in (5a). Without help of a nominalizer, it can never be used as an argument of a predicate, as indicated in (5b).³

- (5) a. otoko-ga deteik-outosi-ta.
 man-Nom leave-be.about.to-Past
 ‘A man was about to leave.’
 b. *Sue-wa [otoko-ga deteik-outosi-ta] \emptyset -o tukamae-ta.
 *Sue-Top [man-Nom leave-be.about.to-Past] \emptyset -Acc catch-Past

Note also that the bracketed sentence is combined with *no* to form a constituent, which is immediately followed by the accusative case marker *-o*. This shows that the constituent consisting of a sentence and *no* functions as a nominal argument.

The second universal condition of IHRCs is the following:

(6) [P-2] *Internal Head Condition*

The IHRC contains the head of a relative clause.

It is reasonable to assume that in (4) the subject NP of the subordinate clause functions as the head of the relative clause. This assumption is supported by the observation that what Sue caught is not a proposition that a man was about to leave, but a specific man that was about to leave. This is only compatible with the analysis in which the subject NP *otoko* ‘man’ functions as the head of the relative clause.

2.2. Language-Particular Conditions on IHRCs

2.2.1. Proper Names as Internal Heads

We will show that there are at least four language-particular conditions. The first language-particular condition we are dealing with is the following:

(7) [P-3] *Proper Name Condition*

A proper name cannot function as an internal head.

In the Japanese IHRC, the proper name condition is violated, as shown in (8).

2 IHRCs are alternatively called head-internal relative clauses (HIRCs), internal relative clauses, headless relative clauses, or pivot-independent relative clauses.

3 The Greek letter \emptyset in (5b) indicates that there is no morpheme between *ta* and *-o*.

- (8) a. [Ken-ga ie-kar deteki-ta] no-o tukamae-ta.
 [Ken-Nom house-from come.out-Past] Nmn-Acc catch-Past
 ‘I caught Ken, who came out of the house.’
- b. Godzilla-ga [Queen-Elizabeth-II-sei-gou-ga Tokyo-wan-ni ukan-dei-ta] no-o tukami-age-ta.
 Godzilla-Nom [the Queen Elizabeth II-Nom Tokyo-bay-Loc float-Prog-Past] Nmn-Acc catch-lift-Past
 ‘Godzilla caught and lifted the Queen Elizabeth II, which was floating in Tokyo bay.’

2.2.2. Indefiniteness of Internal Heads

The second language-particular condition is concerned with what determiner is allowed inside the internal head.

- (9) [P-4] *Weak NP Condition*

The internal head must be a weak NP.

In (9) we employ the notion “weak NP” to refer to a type of NP whose determiner is “weak.” This notion is based on Milsark’s (1977) classification of determiners. According to Milsark, determiners are divided into weak determiners and strong determiners. The former includes determiners such as the indefinite determiners *a* and *some*, the quantifiers *many* and *few*, and number determiners. The latter includes determiners such as the definite determiner *the*, demonstratives, and the quantifiers *all*, *every* and *most*. In what follows, we will also use the term “strong NP” to refer to the type of NP whose determiner is “strong” in the sense just discussed.

As the sentences in (10) show, strong determiners can be part of the internal head in the Japanese IHRC. This means that the Japanese IHRC does not obey the weak NP condition.

- (10) a. [[subete-no usagi]-ga deteki-ta] no-o tukamae-ta.
 [[all-Gen rabbit]-Nom come.out-Past] Nmn-Acc catch-Past
 ‘I caught all the rabbits, which came out.’
- b. [[kono usagi]-ga deteki-ta] no-o tukamae-ta.
 [[this rabbit]-Nom come.out-Past] Nmn-Acc catch-Past
 ‘I caught this rabbit, which came out.’
- c. [[daibun-no usagi]-ga deteki-ta] no-o tukamae-ta.
 [[most-Gen rabbit]-Nom come.out-Past] Nmn-Acc catch-Past
 ‘I caught most of the rabbits, which came out.’

2.2.3. Split Internal Heads

The third language-particular condition is concerned with whether or not IHRCs allow internal heads to be split.

- (11) [P-5] *Split Head Condition*

The internal head cannot be split.

As Kuroda (1975/76, 1992) observes, the Japanese IHRC allows split internal heads, as the examples in (12) show.

- (12) a. [zyunsa-ga dorobou-o kawa-no-hou-e oitumeteit-ta] no-ga ikioiamatte
 [policeman-Nom thief-Acc toward.river track.down-Past] Nmn-Nom exceed.power
 hutaritomo kawa-no naka-e tobikon-da.
 both into.river jump-Past
 ‘A policeman was tracking down a thief toward the river, and both, losing control, jumped into the river.’
- b. Sue-wa [Bill-ga heya-de Ken-to naguri-at-tei-ta] no-o hutaritomo oidasi-ta.
 Sue-Top [Bill-Nom room-in Ken-with hit-each.other-Pres-Past] Nmn-Acc both kick.out-Past
 ‘Bill was hitting with Ken in the room, and Sue kicked out both of them.’

Thus, we can conclude that the Japanese IHRC violates the split head condition.

2.2.4. Predicate Type of IHRC

The fourth language-particular condition is concerned with the type of predicate used in IHRCs.

(13) [P-6] *Predicate Type Condition*

The predicate of IHRCs cannot be individual-level.

It is claimed in Uchibori (1991), among others, that the Japanese IHRC obeys this condition. This means that they can take a stage-level predicate such as *deteki-ta* ‘come.out-Past’ and *ukan-dei-ta* ‘float-Prog-Past’, as shown in (8a) and (8b), but cannot take an individual-level predicate such as *hansamu-na* ‘handsome-Pres’ and *ooki-i* ‘big-Pres’.⁴ Observe the following.

- (14) a. *Ken-wa [otoko-ga hansamu-na] no-o taihosi-ta.
 *Ken-Top [man-Nom handsome-Pres] Nmn-Acc arrest-Past
 ‘Ken arrested a man, who is handsome.’
 b. *Sue-wa [otoko-ga ooki-i] no-o nagut-ta.
 Sue-Top [man-Nom big-Pres] Nmn-Acc hit-Past
 ‘Sue hit a man, who is big.’
 c. *Ken-wa [sono inu-ga Akita-inu dea-ru] no-o ketobasi-ta.
 *Ken-Top [the dog-Nom Akita-dog be-Pres] Nmn-Acc kick-Past
 ‘Ken kicked the dog, which is an Akita.’

What the sentences in (14) indicate is that individual-level predicates such as *hansamu-na* ‘handsome-be.Pres’, *ooki-i* ‘big-be.Pres’, and *Akita-inu dea-ru* ‘Akita-dog be-Pres’ cannot serve as the main predicate in IHRC. This constraint is known to differentiate between IHRCs and EHRCs in Japanese. The EHRC corresponding to (14) are perfectly grammatical.

- (15) a. Ken-wa [[NP e_i] hansamu-na] otoko _{i} -o taihosi-ta.
 Ken-Top [[NP e_i] handsome-be.Pres] man-Acc arrest-Past
 ‘I arrested a young man who is handsome.’
 b. Sue-wa [[NP e_i] ooki-i] okoto _{i} -o nagut-ta.
 Sue-Top [[NP e_i] big-be.Pres] man _{i} -Acc hit-Past
 ‘Sue hit a man who is big.’
 c. Ken-wa [[NP e_i] Akita-inu dea-ru] sono inu _{i} -o ketobasi-ta.
 Ken-Top [[NP e_i] Akita-dog be-Pres] the dog _{i} -Acc kick-Past
 ‘Ken kicked the dog, which is an Akita.’

2.2.5. Precedent and Adjacency Condition

In this section I will introduce a semantic condition on the temporal relation between the eventuality of the IHRC and that of the main clause. This condition, first proposed in Fuji (1998), is called precedence and adjacency condition (PAC), for it consists of two sub-conditions, precedence condition and adjacency condition.

As the PAC is quite an abstract condition and is not easily observable, I will illustrate its consequences, citing evidence put forth in Fuji (1998). But before doing so, let me briefly review the precursor of the PAC, i.e., the relevancy condition, proposed by Kuroda in the 1970’s.

Kuroda noticed that the Japanese IHRC shows some interpretive peculiarities that are not shared by the EHRC and proposed the following generalization to describe them.

(16) *The Relevancy Condition*

For an IHRC 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. (cf. Kuroda 1975/76, 1992)

4 See Kratzer (1995) for the distinction between stage-level and individual-level predicates.

This generalization is stated vaguely to subsume several sub-conditions. Among them, the following two sub-conditions form essential components of the condition and are of great importance to our purposes here:

(17) a. *The Simultaneity Condition*

The IHRC is interpreted as simultaneous with the time reference of the matrix clause.

(cf. Kuroda 1975/76, 1992)

b. *The Co-Locationality Condition*

The two events represented by the IHRC and the matrix clause involve the same physical location.

(cf. Kuroda 1975/76, 1992)

The intuitive content of these conditions is illustrated in (18). (In the following examples, I will offer an additional sentential translation with the emphasis on the temporal properties of the IHRC, in addition to a regular translation that is based on English relative clauses.)

- (18) John-wa [Mike-ga ringo-o sara-no ue-ni oi-ta] no-o toriage-ta.
 John-Top [Mike-Nom apple-Acc plate-Gen top-Loc put-Past] Nmn-Acc pick.up-Past
 ‘John picked up an apple, which Mike put on a plate.’
 ‘Immediately after Mike put an apple on the plate, John picked it up (from the same plate).’

In the second sentential translation of (18) the subordinating conjunction *immediately after* reflects the simultaneity condition, and the phrase *from the same plate* reflects the co-locationality condition.

Now we will move on to show that that the simultaneity condition as it is stated in (17a) is still vague and propose that the condition can be decomposed into two independent temporal conditions, i.e., precedence condition and adjacency condition.

First, as part of Kuroda’s simultaneity condition, Fuji (1998) proposed a language-particular condition that is concerned with temporal adjacency between two eventualities. This condition is called adjacency condition.

(19) [P-7a] *Adjacency Condition:*

The eventuality of the IHRC must be temporally adjacent to the eventuality of the main clause.

The evidence for the adjacency condition is illustrated in (20) and (21). In (20) the eventuality of the suspect’s coming here is interpreted as adjacent to the eventuality of my arresting him. This interpretation is incompatible with two time adverbials denoting non-adjacent time intervals. As a consequence, the sentence in (21) is unacceptable.

- (20) watasi-wa [hannin-ga kotira-ni yatteki-ta] no-o tukamae-ta.
 I-Top [suspect-Nom here-to come-Past] Nmn-Acc arrest-Past
 ‘I arrested a suspect who was coming here.’
 ‘A suspect came here, and immediately afterwards I arrested him (here).’
- (21) *watasi-wa [kinoo hannin-ga kotira-ni yatteki-ta] no-o kesa tukamae-ta.
 *I-Top [yesterday suspect-Nom here-to come-Past] Nmn-Acc this.morning arrest-Past
 ‘*This morning, I arrested a suspect, who was coming here yesterday.’
 ‘*Yesterday, a suspect came here, and this morning, I arrested her (here).’

EHRCs, on the other hand, are not regulated by the adjacency condition, as (22) and (23) show.

- (22) boku-wa [kotira-ni yatteki-ta] hannin-o tukamae-ta.
 I-Top [here-to come-Past] suspect-Acc arrest-Past
 ‘I arrested a suspect who was coming here.’

- (23) boku-wa [kinoo kotira-ni yatteki-ta] hannin-o kesa tukamae-ta.
 I-Top [yesterday here-to come-Past] suspect-Acc this.morning arrest-Past
 ‘This morning, I arrested a suspect who was coming here yesterday.’

From Kuroda’s simultaneity condition, another language-particular condition can be extracted that is concerned with temporal order between the eventuality of the IHRC and the eventuality of the main clause. This condition is called precedence condition.

- (24) [P-7b] *Precedence Condition*

The eventuality of the IHRC must precede the eventuality of the main clause.

Evidence for the precedence condition comes from the contrast between the sentence in (25a) and the sentence in (25b). On the pragmatically salient reading, the sentence in (25b) is unacceptable even though the adjacency requirement can be met.

- (25) a. Tom-wa [usagi-ga ana kara deteki-ta] no-o tukamae-ta.
 Tom-Top [rabbit-Nom hole from come.out-Past] Nmn-Acc catch-Past
 ‘Tom caught a rabbit, which came out of a hole.’
 ‘Immediately after a rabbit came out of a hole, Tom caught it.’
 b. *[Tom-ga usagi-o tukamae-ta] no-wa ana kara deteki-ta.
 *[Tom-Nom rabbit-Acc catch-Past] Nmn-Top hole from come.out-Past
 ‘*A rabbit, which Tom caught, came out of a hole.’
 ‘*Immediately after Tom caught a rabbit, it came out of a hole.’

No precedence requirement is imposed on the EHRC, as the sentences in (26) show.

- (26) a. Tom-wa [ana kara deteki-ta] usagi-o tukamae-ta.
 Tom-Top [hole from come.out-Past] rabbit-Acc catch-Past
 ‘Tom caught a rabbit that came out of a hole.’
 b. [Tom-ga tukamae-ta] usagi-wa ana kara deteki-ta.
 [Tom-Nom catch-Past] rabbit-Top hole from come.out-Past
 ‘The rabbit that Tom caught came out of a hole.’

In this section we have observed that Kuroda’s relevancy condition can be decomposed into the simultaneity condition and the co-locality condition. Then we have sharpened the simultaneity condition, so that we have obtained the two temporal conditions that the Japanese IHRC must obey, i.e., the adjacency condition and the precedence condition

These conditions are combined into precedence and adjacency condition.

- (27) [P-7] *Precedence and Adjacency Condition (PAC)*

The eventuality of the IHRC must precede and be adjacent to the eventuality of the main clause.

3. Conditions on IHRCs in Navajo

3.1. Universal Conditions on IHRCs

Let us move on to examine properties of the Navajo IHRC. First, we will make sure that the Navajo IHRC exhibits the two universal conditions of IHRC. The first defining condition is repeated in (28).

- (28) [P-1] *Argument Condition*

The IHRC is a nominalized sentence that functions as a syntactic argument to the main predicate.

In the Navajo IHRC, the relative clause is nominalized by means of the definite determiner/nominalizer/complementizer. (cf. Platero

1974, Barss, Hale, et al. 1992, Shauber 1979) According to Platero (1974), they are divided into two subtypes: non-past nominalizers and past nominalizers, as shown in (29).⁵

- (29) a. Non-past Nominalizers: *-yígíí, -ígíí*
 b. Past Nominalizers: *-yéé, -éé, -áa*

Examples of the Navajo IHRC with various types of nominalizer are given in (30a) through (30d).

- (30) a. [lééchaa'í hastiin yishxash-éé] nahat'in
 [dog man bit-Nmn] is.barking
 'The dog that bit the man is barking.'
 b. [ashkii alháá'-áa] yádooltih
 [boy 3S-was:snoring-Nmn] 3S-will:speak
 'The boy who was snoring will talk.'
 c. [ashkii alhosh-igíí] alháá
 [boy imp.3.sleep-Nmn] imp:3:snore
 'The boy who is sleeping is snoring.'
 d. [ashkii Mary yí'dísoot-éé] deezgo'
 [boy Mary whistle-Nmn] fall
 'The boy who was whistling at Mary fell.'

I will argue that each nominalized part of the sentences in (30) is an independent sentence followed by a nominalizer and functions as syntactic arguments for the main predicate.

First, each nominalized portion of the sentences in (30), when used without a nominalizer, can stand alone as an independent sentence, as shown in (31a) through (31d).

- (31) a. lééchaa'í hastiin yishxash
 dog man bit
 'The man bit the dog.' (preferred reading)
 or 'The dog bit the man.'
 b. ashkii alháá'
 boy 3S-was:snoring
 'The boy was snoring.'
 c. ashkii alhosh
 boy imp.3.sleep
 'The boy is sleeping.'
 d. ashkii Mary yí'dísoot
 boy Mary whistle
 'The boy was whistling at the girl.'

Second, note that the main predicate of each of the sentences from (30a) to (30d) is an intransitive verb, requiring a single syntactic argument. Also note that the nominalized part is the only possible argument available to the main predicate in each case. Hence, we can conclude that the nominalized portion of the sentences from (30) acts as a syntactic argument to the main predicate.

The Navajo IHRC also satisfies the second defining condition of the IHRC, given in (32).

- (32) [P-2] *Internal Head Condition*

The IHRC contains the head of a relative clause.

5 Young and Morgan (1987) also mention this kind of dichotomy.

It is obvious that the main predicates in sentences from (30a) through (30d), i.e., *nahal'in* 'is barking', *yádooltih* '3S-will.speak', *atháá* 'imp.3.snore', and *deezgo* 'fall', require some individual, rather than a proposition. In fact, the sentential translations for (30a) through (30d) suggest that each predicate is related to some NP in IHRC that denotes an individual.

3.2. Language-Particular Conditions on IHRCs

3.2.1. Proper Names as Internal Heads

We will now turn to the properties of the IHRC that differentiate the Japanese-type IHRC from IHRCs in other languages including Navajo.

In this section, we will examine if the internal head of the Navajo IHRC can be a proper name.

(33) [P-3] *Proper Name Condition*

A proper name cannot function as an internal head.

As opposed to the Japanese IHRC, the Navajo IHRC obeys this condition. Thus, the internal head of the Navajo IHRC may not be a proper name. To see this, let us examine three cases. First, the contrast in (34a) and (34b) shows that in Navajo, when a proper name is used as an internal head, the IHRC becomes unacceptable.

- (34) a. *[John athosh-ígíí] atháá
 *[John imp.3.sleep-Nmn] imp.3:snore
 '*John who is sleeping is snoring.'
 b. [at'édéd athosh-ígíí] atháá
 [girl imp.3.sleep-Nmn] imp.3:snore
 'The girl who is sleeping is snoring.'

Second, consider the case in which both a proper name and an indefinite NP appear as arguments in the IHRC. In that case, only the indefinite NP can be interpreted as the internal head.

- (35) [John at'édéd yí'dísool-éę] deezgo'
 [John girl whistle-Nmn] fall
 '*John who was whistling at Mary, fell.'
 'The girl who John was whistling at fell.'

Third, if two arguments in the IHRC are proper names, neither of them can function as the internal head. Hence, the following sentence has no possible interpretation.

- (36) [John Mary yí'dísool-éę] deezgo'
 [John Mary whistle-Nmn] fall
 '*John who was whistling at Mary fell.'
 '*Mary who John was whistling at fell.'

We may conclude from the three cases just examined that the Navajo IHRC does not allow proper names to be internal heads.

3.2.2. Indefiniteness of Internal Heads

The second language-particular condition I would like to examine is whether or not internal heads must be indefinite.

(37) [P-4] *Weak NP Condition*

The internal head must be a weak NP.

In fact, IHRCs in many languages such as Lakhota require the internal head to exclude a strong determiner. As we have already seen,

the Japanese IHRC is exceptional in this regard. In this section, we will show that Navajo behaves just like Lakota in that the internal head must be a weak NP.⁶

Let us first consider the sentence in (38), in which the subject is a strong NP and the object a weak NP. In this case, only the object NP can be interpreted as the internal head.

- (38) [t'áá 'altso at'ééd yí'dísooł-éę] deezgo'
 [everyone girl whistle-Nmn] fall
 '*Everyone who was whistling at the girl fell.'
 'The girl that everyone was whistling at fell.'

Given our claim that both the weak NP condition and the proper name condition hold in Navajo, we can predict that if we replace a proper name for the object NP in (38), the sentence becomes unacceptable. This prediction is actually borne out.

- (39) *[t'áá 'altso Mary yí'dísooł-éę] deezgo'
 *[everyone Mary whistle-Nmn] fall
 '*Everyone who was whistling at the Mary fell.'
 '*Mary who everyone was whistling at fell.'

3.2.3. Split Internal Heads

Next, the third language-particular condition distinguishing the two languages is the following:

- (40) [P-5] *Split Head Condition*
 The internal head cannot be split.

Contrary to the Japanese IHRC, a split internal head is not allowed in Navajo.

- (41) *[ashkii at'ééd yizts'qs-éę] dahdii'-aázh
 *[boy girl kiss-Nmn] leave:dual
 '*A boy was kissing a girl, who left.' (Platero 1978: 54)

In (41), there are two indefinite NPs in the IHRC, and the main predicate requires a plural subject due to the suffix *aázh* 'dual'. So if both *ashkii* 'boy' and *at'ééd* 'girl' were able to form a split internal head, this sentence would be acceptable. The fact that it is not indicates that a split internal head is unavailable in Navajo.

3.2.4. Predicate Type of IHRCs

The fourth language-particular condition that differentiates between the Japanese and Navajo IHRCs is whether or not the predicate of the IHRC can be individual-level.

- (42) [P-6] *Predicate Type Condition*
 The predicate of the relative clause cannot be individual-level.

The Navajo IHRC violates this condition, and can take an individual level predicate as its matrix predicate. The sentences in (43a) through (43c) show that *baa dzólní*, 'handsome', *t'óó baa'ih* 'ugly', and *nisneez* 'tall', which denote some temporally stable properties, can be used as main predicates.

- (43) a. ashkii (ayóo) baa dzólní
 boy (very) handsome
 'The boy is (very) handsome.'

6 See Williamson (1987) for how this restriction is realized in Lakota IHRCs.

- b. ashkii (ayóo) t'óó baa'ih
 boy (very) ugly
 'A boy is (very) ugly.'
- c. ashkii (ayóo) nisneez
 boy (very) tall
 'A boy is (very) tall.'

The above sentences can be embedded with an appropriate nominalizer attached, and become grammatical, as the sentences in (44) show.

- (44) a. [ashkii (ayóo) baa dzólní-ígíi] deezgo
 [boy (very) handsome-Nmn] fall
 'The boy who is (very) handsome fell.'
- b. [ashkii (ayóo) t'óó baa'ih-ígíi] deezgo
 [boy (very) ugly-Nmn] fall
 'The boy who is (very) ugly fell.'
- c. [ashkii (ayóo) nisneez] deezgo
 [boy (very) tall-Nmn] fell
 'The boy who is (very) tall fell.'

3.2.5. Precedence and Adjacency Condition

3.2.5.1. Temporal Adjacency

In this subsection, we observe two sub-conditions subsumed under the PAC. First, the fifth language-particular condition that differentiates between the Japanese and Navajo IHRCs is whether or not the eventuality of the main clause and the eventuality of the IHRC are temporally adjacent with each other.

- (45) [P-7a] *Adjacency Condition*

The eventuality of the IHRC must be temporally adjacent to the eventuality of the main clause.

Contrary to what we saw in Japanese, the Navajo IHRC does not obey the adjacency condition.

- (46) [ashkii 'adááadáá' Mary yí'dísool-éé] jíídáá' deezgo'
 [boy yesterday Mary whistle-Nmn] today fall
 'The boy who was whistling at Mary yesterday fell today.'

The eventualities of both the relative and the main clauses are temporally separated due to the two temporal adverbials 'adááadáá' 'yesterday' and jíídáá' 'today'. Still, the sentence is acceptable.

3.2.5.2. Temporal Precedence

The final language-particular condition we will consider is precedence condition.

- (47) [P-7b] *Precedence Condition*

The eventuality of the relative clause must precede the eventuality of the main clause.

The sentences in (48) indicate that as opposed to the Japanese IHRC, the Navajo IHRC does not follow the precedence condition.

- (48) a. [ashkii jíídáá' Mary yí'dísool-éé] 'adááadáá' deezgo'
 [boy today Mary whistle-Nmn] yesterday fall
 'The boy who was whistling at Mary today fell yesterday.'

- b. [ashkii alhosh-ígíí] ‘adááddáá’ deezgo’
 [boy sleeping-Nmn] yesterday fell
 ‘The boy who is sleeping fell yesterday.’

In (48), *jiídáá* ‘today’ appears in the relative clause and ‘*adááddáá*’ ‘yesterday’ in the main clause. This forces us to interpret the eventuality in the main clause as preceding the eventuality in the relative clause. In (48b), the eventuality depicted in the relative clause denotes the ongoing activity, which follows, rather than precedes, the eventuality of the main clause that happened ‘yesterday’.

Given the above discussion, we may conclude that the Navajo IHRC does not observe precedence and adjacency condition.

(49) [P-7] *Precedence and Adjacency Condition*

The eventuality of the relative clause must precede and be adjacent to the eventuality of the main clause.

4. Concluding Remarks

In this paper we have compared the Japanese and the Navajo IHRCs from a semantic viewpoint. These two constructions share the two defining properties of IHRCs, i.e., [P-1] and [P-2].

[P-1] *Argument Condition*

The IHRC is a nominalized sentence that functions as a syntactic argument to the main predicate.

[P-2] *Internal Head Condition*

The IHRC contains the head of a relative clause.

But their commonalities end here. We have seen that there are a range of profound semantic differences between the Japanese and the Navajo IHRCs.

[P-3] *Proper Name Condition*

The internal head cannot be a proper name.

[P-4] *Weak NP Condition*

The internal head must be a weak NP.

[P-5] *Split Head Condition*

The internal head cannot be split.

[P-6] *Predicate Type Condition*

The predicate of the relative clause cannot be individual-level.

[P-7] *Precedence and Adjacency Condition*

The eventuality of the relative clause must precede and be adjacent to the eventuality of the main clause.

The Navajo IHRC obeys [P-3] through [P-5], whereas the Japanese IHRC does not. In contrast, the Japanese IHRC obeys [P-6] and [P-7] but the Navajo IHRC does not.

Given this array of facts, a question naturally arises: isn’t it too sweeping a generalization to classify the Japanese and the Navajo IHRCs simply into one typological group, as has been suggested by Watanabe (2004)? We will not give a definitive answer to this question here, but it can safely be said that if one is to maintain that the Japanese and the Navajo IHRCs belong to one typological group, then one needs at least to come up with some mechanism to account for their profound semantic discrepancy noted in this paper.

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日本語とナバホ語の主要部内在型関係節について

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要旨： 日本語とナバホ語の主要部内在型関係節の比較を行い、両者の間に多くの本質的な意味論上の差異があることを指摘した。このような差異は、日本語とナバホ語の主要部内在型関係節が、類型論上同じグループに属しているとみなすいかなる分析であっても、克服しなければならない経験上の課題であると考えられる。

キーワード： 主要部内在型関係節, 日本語, ナバホ語, 類型論, IHRC, HIRC