

## Linking semantic and pragmatic factors in the Japanese Internally Headed Relative Clause

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## Talk outline

- 1 Two puzzles about the IHRC
  - puzzle #1: semantic puzzle
  - puzzle #2: pragmatic puzzle
- 2 Previous approaches to these puzzles
  - approaches to puzzle #1 (Ito 1986, Shimoyama 1999)
  - approaches to puzzle #2 (Kuroda 1976, Fuji 1998, Kim 2006)
- 3 Proposal: unified solution to the two puzzles
  - overlooked link between the puzzles
  - explanatory solution that shows how the semantic and pragmatic factors interact
- 4 Conclusion



## Puzzle #1: Semantic identification of the internal head

- (1) Yoko wa [Taroo ga sara no ue ni keeki o  
Yoko TOP Taro NOM dish GEN top DAT cake ACC  
oi-ta] no o tabe-ta.  
put-PAST NMLZ ACC eat-PAST

'Literal' translation: 'Yoko ate *that Taro put a cake on the dish.*'

Paraphrase: 'Yoko ate the cake that Taro put on the dish.'

(keeki 'cake' = internal head)

- Syntactically, the IHRC is just a nominalized sentence.
- How does the noun inside the embedded clause get identified as the semantic head of the whole construction?



## Puzzle #2: Pragmatic felicity conditions – IHRC v. EHRC

- (2) Taroo wa [Hanako ga kinoo sara no ue ni oi-ta]  
Taro TOP Hanako NOM **yesterday** dish GEN top LOC put-PAST  
ringo o kyoo tabe-ta.  
apple ACC **today** eat-PAST  
'Today, Taro ate the apple that Hanako put on the dish  
yesterday.' (EHRC)
- (3) ??Taroo wa [Hanako ga kinoo sara no ue ni ringo  
Taro TOP Hanako NOM **yesterday** dish GEN top LOC apple  
o oi-ta] no o kyoo tabe-ta.  
ACC put-PAST NMLZ ACC **today** eat-PAST  
intended: 'Today, Taro ate the apple that Hanako put on the  
dish yesterday.' (IHRC)

- Why the contrast between IHRCs and EHRCs?
- Where do the felicity conditions for IHRCs come from?



## Previous approaches

### Puzzle #1

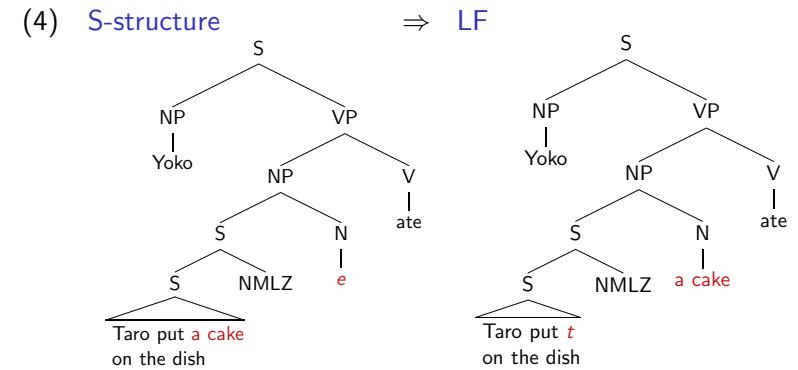
- Movement-based approach (Ito 1986)
- Semantic approach (Hoshi 1995, Shimoyama 1999)

### Puzzle #2

- Kuroda's (1976) observation
- Elaborations of Kuroda's (1976) observation
  - Fuji (1998)
  - Kim (2006)



## Movement-based approach (Ito 1986)

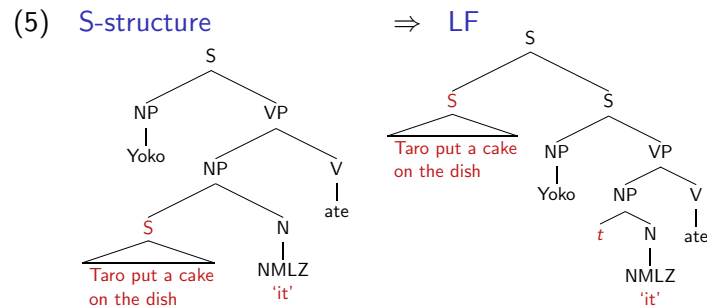


### Problems

- Makes incorrect predictions regarding quantifier scope.
- Can't account for cases involving no internal head.



## Semantic approach (Shimoyama 1999)



### Anaphoric identification of the internal head:

- The embedded clause describes some situation.
- An object that is salient in that situation is **anaphorically** retrieved when interpreting the matrix clause (no syntactic coindexation is involved).



## Kuroda's (1976) Relevancy Condition

(3) ??Taroo wa [Hanako ga **kinoo** sara no ue ni *ringo*  
Taro TOP Hanako NOM **yesterday** dish GEN top LOC apple  
o oi-ta] no o **kyoo** tabe-ta.  
ACC put-PAST NMLZ ACC **today** eat-PAST  
intended: 'Today, Taro ate the apple that Hanako put on the dish yesterday.'

### Relevancy Condition (Kuroda 1976)

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 the matrix clause

### Problems:

- The condition does not make clear predictions.
- It does not explain why IHRCs obey this condition.



## Fuji (1998)

(3) ??Taroo wa [Hanako ga **kinoo** sara no ue ni  
Taro TOP Hanako NOM **yesterday** dish GEN top LOC  
*ringo* o oi-ta] no o **kyoo** tabe-ta.  
apple ACC put-PAST NMLZ ACC **today** eat-PAST  
intended: 'Today, Taro ate the apple that Hanako put on  
the dish yesterday.'

### Precedence and Adjacency Condition (PAC)

The event of the IHRC **temporally precedes** and is **adjacent** to the event of the main clause.



## Fuji (1998)

(3') Taroo wa [Hanako ga sara no ue ni  
Taro TOP Hanako NOM dish GEN top LOC  
*ringo* o oi-ta] no o tabe-ta.  
apple ACC put-PAST NMLZ ACC eat-PAST  
'Taro ate the apple that Hanako put on the dish.'

- If the temporal adverbials are removed, the sentence is well-formed and has the interpretation in which the embedded event immediately precedes the matrix event.



## Kim (2006)

(3) ??Taroo wa [Hanako ga **kinoo** sara no ue ni *ringo*  
Taro TOP Hanako NOM **yesterday** dish GEN top LOC apple  
o oi-ta] no o **kyoo** tabe-ta.  
ACC put-PAST NMLZ ACC **today** eat-PAST  
intended: 'Today, Taro ate the apple that Hanako put on the dish yesterday.'

### Relevancy Condition subclassified

Either A or B (or both) has to hold:

- Temporal link:** The embedded event describes a **temporary state that holds at the matrix time**.
- Logical link:** The matrix and embedded events stand in either a **cause-effect** or **concessive** relation.



## Counterexample (1)

(6) [**Asu** undoozyoo o tuka-u] no ga  
**tomorrow** playground ACC use-NONPAST NMLZ NOM  
**kinoo** ame de dorodoro ni nat-te simat-ta  
**yesterday** rain with muddy become PERF-PAST  
tame, *kyoo* wa itinitizyuu kondisyon no tyoosei  
because today TOP all day condition GEN adjustment  
o si-ta.  
ACC do-PAST  
'Because the playground we'll use tomorrow became  
muddy with rain yesterday, we spent all day today restoring  
it to its former condition.' (**matrix time < embedded time**)

- No temporal link (since matrix time < embedded time).
- No logical link.



## Counterexample (2)

(7) [Musuko no tomodati ga tamatama sono toki ie  
son GEN friend NOM by.chance then house  
ni asobi ni ki-te i-ta] no ga syasin ni  
DAT play for come PERF-PAST NMLZ NOM photo DAT  
utut-te i-ru.

appear PRES-PROG

'My son's friend who then happened to be visiting our house appears in this picture.'

(embedded time << matrix time)

<<: temporally precedes and is disjoint from

- No temporal link (just like (3)).
- No logical link (just like (3)).



## Basic intuitions

**Proposal:** The felicity condition on the IHRC derives from pragmatic factors affecting the anaphoric retrieval process in the interpretation of the IHRC.

- The requirement that an anaphoric link has to be established is a *semantic* property of the construction (this is a well-established assumption for the solution for **Puzzle 1**, as noted above).
- But *pragmatic* factors come into play in the process in which that anaphoric link is actually established (just as in any case of anaphora resolution).
- In other words, the answer to **Puzzle 2** emerges as an *immediate* consequence of a well-motivated solution for **Puzzle 1**.



## IHRC v. EHRC sentence structure

(8) John ate the cake that Mary baked.

a. IHRC: John [Mary **cake** baked] ate.  
NP<sub>v1</sub> [NP<sub>v2</sub> NP<sub>v2</sub> V<sub>2</sub>] V<sub>1</sub>

b. EHRC: John [Mary baked] **cake** ate.  
NP<sub>v1</sub> [NP<sub>v2</sub> V<sub>2</sub>] NP<sub>v1</sub> V<sub>1</sub>



## Existential presupposition

- You can't eat something that does not exist at the eating event time:

(9) #John ate an apple, but there wasn't an apple.

- This means that *ate* presupposes the existence of its object at the event time.
- Arguments are, by default, thought to exist at the verbal event time (Enç 1986).
- But we have just seen that *keeki* 'cake' in (8) is an argument of different verbs in the IHRC v. EHRC.



## EHRC

John [Mary yesterday put\_on\_table] **cake** today ate.  
 $NP_{v_1}$  [ $NP_{v_2}$   $V_2$  ]  $NP_{v_1}$   $V_1$

In this case, the presupposition of *tabeta* 'ate' is satisfied:

- Here, *keeki* 'cake' is an argument of the matrix verb.
- Therefore, it exists at the matrix event time.
- This satisfies the matrix verb's presupposition.

→ predicted to be good



## IHRC

John [Mary yesterday **cake** put\_on\_table] today ate.  
 $NP_{v_1}$  [ $NP_{v_2}$   $NP_{v_2}$   $V_2$  ]  $V_1$

In this case, the presupposition of *tabeta* 'ate' is NOT satisfied:

- Here, *keeki* 'cake' is an argument of the embedded verb.
- Therefore, we know that a cake exists at the embedded event time.
- Thus it does not necessarily exist at the matrix event time, failing to satisfy the matrix verb's presupposition.

→ predicted to be odd



## Predictions

- Verbs without existential presuppositions should not show an IHRC/EHRC felicity contrast.
- If world knowledge strongly indicates the internal head's existence at the matrix event time, the IHRC should be acceptable.
- If people accommodate the existence of the object denoted by the internal head at the matrix event time, no contrast should be observed between the IHRC and EHRC.



## Predicates without presupposition

- The Japanese predicate *utsuru* 'appear', unlike *taberu* 'eat', does not carry an existence presupposition at the matrix time:
  - (10) John wa kono syasin ni utut-te i-ru ga,  
 John TOP this picture DAT appear PRES-PROG but  
 koko ni wa i-nai.  
 here DAT TOP be-NEG  
 'John appears in the picture but is not here'
- As predicted, IHRCs with *utsuru* as the non-past matrix verb are felicitous even when the embedded verb describes an event that took place in the past, as we saw in (7).



## World knowledge

- It is true of all kinds of anaphoric presuppositions that world knowledge can serve as another means (besides entailment) of satisfying them:
  - (11) Mary studied chemistry in college and applied for a job that required a diploma, so she took it with her to her interview.
- Just because Mary studied chemistry doesn't necessarily mean that she received a diploma, but based on our knowledge of what is likely, we judge (11) to be acceptable.
- Similarly, in (6), it is possible that the playground was being built at the time of utterance such that it did not exist during the rain. However, based on what speakers know about the world, this is unlikely enough that *undoozyoo* 'playground' is capable of being understood to exist at the matrix event time.



## Accommodation

- Some speakers of any language accommodate presuppositions more readily than others.
- For example, they may accept B' in addition to B without rejecting the presupposition by saying something like *I didn't know anything was broken*.
  - (12) A: Why isn't my letter ready to send?  
B: The printer is broken.  
B': (#) It's the printer that is broken, not the copier.
- Those who over-accommodate similarly don't think that IHRC examples lacking temporal overlap are infelicitous.



## Scorecard

	Fuji (1998)	Kim (2006)		present proposal
	PAC	temporal link	logical link	
(2)	✓	✓	✓	✓
(3)	✓	✓	✓	✓
(6)	×	×	×	✓
(7)	×	×	×	✓



## Benefits of the proposed analysis

- Predicts the grammaticality of (6) and (7) that were problematic for previous accounts.
- Explains *why* IHRCs have restricted felicity (because they are anaphoric).
- Balances semantic and pragmatic factors without stipulation.



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