

## Kuroda's "Left-Headedness" Revisited

**1. Introduction:** It is quite well known that Japanese has prenominal relative clauses as well as head-internal relative clauses (HIRC). However, Kuroda (1974, 1975/76, 1976/77) observed that Japanese also had peculiar "left-headed" relative clauses, which he called *no*-introduced relatives (*No*-RCs) and *de*-introduced relatives (*De*-RCs), respectively. (1) illustrates HIRC with *-o* and *No*-RC and *De*-RC with *-no* and *-de*. Note that the head NP, which is the transitive object and normally marked by the accusative particle *-o*, is marked by *-no* or *-de*.

- (1) **negi-no/de/o** komakaku kizan-da no-o tabe-ta.  
 scallion-NO/DE/Acc finely cut-Pst pro-Acc eat-Pst  
 'I ate the scallion that were cut finely.' (No-RCs/De-RCs/HIRC)

Given the fact that Japanese, in contrast with English, is a head-final language, the existence of such apparently post-nominal relative clauses is somewhat unexpected (cf. Bach 1971, Greenberg 1963). However, no serious attention has been paid to these relative clauses except Kuroda's papers. The main aim of this paper is to examine their syntax and semantics, addressing three main questions: (i) The syntactic structures of *No*-RCs and *De*-RCs: (ii) The syntactic identities of *-no* and *-de*: (iii) The derivation of these two types of relative clauses.

**2. Deriving "Left-Headedness":** Syntactically, the *no*/*de*-introduced head NP is located linearly to the left of the relative clause, as Kuroda observed. But it is also syntactically outside the relative clause, in contrast with the head noun of HIRCs. This can be shown by the fact that no element internal to the relative clause can precede *no*/*de*-introduced NPs. As shown in (2) and (3), the adverb and the instrument phrase cannot be scrambled to the left of the *no*/*de*-introduced NPs.

- (2) [komakaku<sub>i</sub> **negi-\*no/\*de/o** t<sub>i</sub> kizan-da no]-o tabe-ta.  
 finely scallion-NO/DE/Acc cut-Pst pro-Acc eat-Pst  
 'the scallions that were cut finely' (No-RC/De-RC/HIRC)

- (3) [hootyoo-de<sub>i</sub> **ninniku-\*no/\*de/o** t<sub>i</sub> mizingirini-si-ta no]-o tabe-ta.  
 knife-with garlic-Acc/NO/DE/Acc t<sub>i</sub> mince.cut-do-Pst pro-Acc eat-Pst  
 'I ate the garlic minced with the knife.' (No-RC/De-RC/HIRC)

In this article, I argue that the surface "left-headedness" of *No*-RCs and *De*-RCs result from two distinct mechanisms: DP-internal inversion in the former and conjunction in the latter.

**3. Inversion and *No*-RCs:** First, I propose that the *No*-RC (4b) is derived from the prenominal head-external relative clause (HERC) (4a) by inverting the head NP to the left (cf. Kuroda 1965)

- (4) a. [DP[CP e<sub>i</sub> mizingirini-si-ta] **negi**]<sub>i</sub>-o tukat-ta.  
 mince.cut-do-Pst scallions use-Pst  
 'I used the scallions that were minced.' (HERC)  
 b. [DP **negi-no**]<sub>i</sub> [CP e<sub>i</sub> mizingirini-si-ta] t<sub>i</sub> no]-o tukat-ta.  
 scallion-NO mince.cut-do-Pst pro-Acc eat-Pst  
 'I used the scallions that were minced.' (No-RC)

I argue that the genitive marker in (4b) is an appositive genitive particle. The analysis is empirically supported by the parallel paradigm in (5) and (6), in which the latter is derived from the former via leftward inversion of NP<sub>1</sub>. Note that the examples are synonymous.

- (5) [[32GB-**no**] iPhone]-o kat-ta.  
 32GB-Gen iPhone-Acc buy-Pst  
 'I bought a 32GB iPhone.' (NP<sub>2</sub>-no NP<sub>1</sub>)  
 (6) [iPhone-**no/\*de** [32GB] t<sub>i</sub> ]-o kat-ta.  
 iPhone-NO/DE 32GB -Acc buy-Pst  
 'I bought a 32GB iPhone.' (NP<sub>1</sub>-no NP<sub>2</sub>)

Thus, it follows that *No*-RCs, although they appear to be left-headed, are in fact syntactically parallel to prenominal HERCs.

**4. Conjunction and *De*-RCs:** *De*-RCs differ from *No*-RCs in a number of important respects (see also (4)–(6)) and there is good evidence that *-de* is a continuative form of copula. First, morphological evidence shows that the same form is used when a copula sentence is conjoined/subordinated to another clause (8) (cf. (7)).

(7) ringo-**de(?-atte)** oisisoona no-o tabe-ta.  
apple-DE tasty-looking pro-Acc eat-Pst  
'I ate the apple that looked tasty.' (De-RC)

(8) [[CP<sub>1</sub> Ken-wa gakubusei-**de(-atte)**], [CP<sub>2</sub> Naomi-wa insei da]].  
Ken-Top undergrad-Cop Naomi-Top grad.student Cop  
'Ken is an undergraduate student and Naomi is a grad student.' (Copula: continuative form)

Second, the grammaticality of inserting the conjunction marker *katu* in *De*-RCs but not in *No*-RCs indicates that the former involves a conjunction structure. Compare (9) and (10).

(9) ookina ringo-\*no/de **katu** oisisoona no-o tabe-ta.  
big apple-NO/DE and tasty-looking pro-Acc eat-Pst  
'I ate the big apple that looked tasty.' (No-RC and De-RC: *katu* conjunction)

(10) [[CP<sub>1</sub> Ken-wa gakubusei-de(-atte)], **katu** [CP<sub>2</sub> Naomi-wa insei da]].  
Ken-Top undergrad-Cop and Naomi-Top grad.student Cop  
'Ken is an undergraduate student and Naomi is a grad student.' (Copula: *katu* conjunction)

Finally, since Kuroda (1999), it is well known that HIRCs cannot appear as a predicate nominal. Applying this to the *No/De*-RCs as a diagnostic test reveals that an HIRC cannot be used as the head of a *De*-RC, as shown in (11). This shows that *-de* is a form of copula, while *-no* isn't.

(11) [HIRC teeburu-no ue ni *negi-ga* oiteat-ta no]-**no/\*de** komakaku kizan-da no-o tabe-ta.  
table-Gen on at scallion-Nom put-be-Pst pro-NO/DE finely cut-Pst pro-Acc eat-Pst  
'I ate the scallions that were on the table and that were cut finely.' (De-RC)

In conclusion, the left-headedness of *De*-RCs is only apparent, due to the fact that two CPs are conjoined.

(12) [CP<sub>2</sub> [CP<sub>1</sub> *e*<sub>1</sub> **negi-de**] [CP<sub>2</sub> komakaku *e*<sub>1</sub> kizan-da no<sub>1</sub>]]-o tukat-ta.  
scallion-DE finely cut-Pst NO<sub>2</sub>-Acc eat-Pst  
'I used the scallions that were cut finely.'  
(Lit. 'I used the things that were scallions and were cut finely') (The structure of *De*-RCs)

**5. A View within East Asia:** *No*-RCs (as well as *De*-RCs) seem to be quite unique typologically. It is rather surprising that *No*-RCs are not observed in Korean, Chinese, and Taiwanese.

(13) \*[**tomato-uy** calu-n kes]-ul mek-ess-ta.  
tomato-Gen slice-Rel thing-Acc east-Pst-Decl  
'I ate tomatoes that were sliced.' (Korean)

But this is expected, because, despite their functional similarities with *no*, genitive particles in Korean and Mandarin Chinese crucially do not have a use as an appositive genitive and hence blocks inversion, as shown in (14). Thus, (13) is ungrammatical since the inversion of the external head noun is also blocked.

(14) a. John-i [32GB-uy iPhone]-lul sa-ss-ta.  
John-Nom 32GB-Gen iPhone-Acc buy-Pst-Decl  
'John bought a 32GB iPhone.' (Korean)  
b. \*John-i [iPhone-uy 32GB]-lul sa-ss-ta.  
John-Nom iPhone-Gen 32GB-Acc buy-Pst-Decl  
'John bought a 32GB iPhone.' (Korean)