The Repetitive Coordinator-ka in Japanese and either in English as Scope Indicators in Disjunction

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Abstract
This study aims to investigate the nature of clausal/phrasal disjunctions in Japanese and in English. Since Larson (1985), it has been observed that the distribution of either is taken to mirror the scopal properties of disjunction (Schwarz 1999). On the other hand, the Repetitive Coordinator-ka (RC-ka) in Japanese has been assumed to be optional (Kishimoto 2013). I propose, however, that RC-ka functions in parallel with the correlative coordinators such as either in English. The paper is organized as follows. Section 2 overviews the parallelisms between either and RC-ka in terms of scopal interpretations. Section 3 argues against an alternative view that either and RC-ka are focus particles but not a part of coordinate structure. In Section 4, I propose a derivational mechanism that derives nominal disjunctions from clausal/phrasal disjunctions in the post-syntactic component (Halle and Marantz 1993, Fukui and Sakai 2003). Section 5 further investigates the connectivity of ka and or, which lends credence to the unified account of the clausal/phrasal disjunctions in Japanese and in English. Section 6 is a brief summary of the present paper.
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Ryoichiro Kobayashi*

1 Introduction

This study aims to investigate the nature of clausal/phrasal disjunctions in Japanese and in English. Since Larson (1985), it has been observed that the distribution of either is taken to mirror the scopal properties of disjunction (Schwarz 1999). On the other hand, the Repetitive Coordinator-ka (RC-ka) in Japanese has been assumed to be optional (Kishimoto 2013). In Japanese, coordination can be constructed with particles such as to ’and,’ mo ’and,’ and ka ’or’ (1).

(1) a. A mo B mo
   A CONJ B RC-mo
   ‘A and B’

b. A to B to
   A CONJ B RC-to
   ‘A and B’

c. A ka B ka
   A DJ B RC-ka
   ‘A or B’

(Kishimoto 2013:192)

Examples in (1) consist of the coordinators and their repetitive coordinators, which are generally assumed to be similar to correlative coordinators such as both and either in English. In this paper, I propose that RC-ka functions in parallel with the correlative coordinators such as either in English.

The rest of this paper is organized as follows. Section 2 overviews the parallelisms between either and RC-ka in terms of scopal interpretations. Section 3 argues against an alternative view that either and RC-ka are focus particles but not a part of coordinate structure. In Section 4, I propose a derivational mechanism that derives nominal disjunctions from clausal/phrasal disjunctions in the post-syntactic component (Halle and Marantz 1993, Fukui and Sakai 2003). Section 5 further investigates the connectivity of ka-RC-ka and either-or, which lends credence to the unified account of the clausal/phrasal disjunctions in Japanese and in English. Section 6 is a brief summary of the present paper.

2 The Correlative/Repetitive Coordinator-ka (RC-ka) and either

Larson (1985) and Schwarz (1999) observe that either in either-or constructions, when adjacent to the first conjunct, delimits the scope of disjunction with its possible surface positions. However, when it appears displaced from the first conjunct, it marks the scope of disjunction explicitly.

(2) a. Mary is looking for a maid or a cook.
   b. Mary is looking for either a maid or a cook.
   c. Mary is either looking for a maid or a cook.

(Larson 1985:218)

According to Larson (1985:218), sentences (2a) and (2b) are three way ambiguous, the two of which are the foci of this study. The first reading is de dicto Narrow Scope Reading (NSR): ‘Mary is searching for a servant, and would be satisfied with any individual x meeting the description; x is a maid or x is a cook.’ Under the de dicto NSR, it does not matter which of the two, a maid and a cook, Mary is looking for. The second reading is de dicto Wide Scope Reading (WSR). Partee and Rooth (1983) first pointed out that this is equivalent to a clausal/phrasal disjunction:

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†Another reading investigated in Larson (1985) is de re NSR, in which (2a) and (2b) are interpreted as ‘there is some particular individual x who is either a maid or a cook such that Mary is seeking x.’ The rough semantic formula of the relevant de re NSR is ‘for some x, x a maid or a cook, Mary is looking for x.’ Since the distinction between de re NSR and the de dicto NSR is irrelevant for the current study, I simply ignore it.

'Mary is looking for a maid or Mary is looking for a cook.' Note that the de dicto WSR is always followed by the continuation ‘but I don’t know which’ (Larson 1985:218); hence generally interpreted as exclusive-or, in some ways. Under the Reductionist approach (Schwarz 1999, among others), it has been widely accepted that either marks the left edge of the coordinate structure. When either is adjacent to nominals, as in (2b), the underlying structure is something like (3a), in which nominals are coordinated. On the other hand, (2c) is derived from phrasal disjunctions in (3b), in which identical elements are elided in the second conjunct.

(3) a. Mary is looking for either [nominal a maid] or [nominal a cook].
   cf. Mary is looking for either a maid or a cook. (=2b)
   b. Mary is either [VP looking for a maid] or [VP looking for a cook].
   cf. Mary is either looking for a maid or a cook. (=2c)

(4) Possible scopal interpretations in disjunction:
   a. de dicto NSR: looking for > or
   b. de dicto WSR: or > looking for
   c. de re NSR (see Footnote 1.)

Let us now turn to RC-ka in Japanese. An anonymous reviewer pointed out to me that WSR disjunction is incompatible with a continuation, demo dochira-demo ii-soo-da-yo ‘but it doesn’t matter which.’ If RC-ka also influences the scopal interpretations of disjunction in a similar manner as either, then it should induce WSR disjunction when RC-ka appears displaced from nominals. The prediction is borne out that either (5a) or (5b), in which RC-ka marks the right edge of disjunctions cannot be followed by (5c).

(5) Obligatory WSR (RC-ka):
      T.-TOP apple-ACC looking:for-PRES DJ orange-ACC looking:for-PRES RC-ka COP
      ‘Taro is either looking for an apple or looking for an orange.’
   b. Taro-wa ringo ka mikan-o sagasitei-ru ka da.5
      T.-TOP apple DJ orange-ACC looking:for-PRES RC-ka COP
      ‘Taro is either looking for an apple or an orange.’
   c. # Demo dochira-demo ii-soo-da-yo.
      but whichever okay-seem-COP-PRT
      ‘But he doesn’t care which.’

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5It is true when either is present, exclusive-or reading becomes more preferable (den Dikken 2006:702). However, ‘either A or B’ does not necessarily entail ‘but not both A and B.’ Consider (i) and (ii):

(i) If you get 100 marks in either Math or Science, then you can have some snacks.
(ii) If either A or non A is correct, then you can have some snacks.

While (i) allows inclusive-or interpretations, (ii) does not, since A and non A are simply incompatible with each other.

5Akira Ishikawa (p.c.) pointed out to me that predicates of intensional contexts make the distinctions between NSR and WSR clearer here. He also notes that coincidentally it is an intentional predicate look for that induces intensional contexts here.

5NSR disjunctions can readily be followed by demo dochira-demo ii-soo-da-yo ‘he doesn’t care which’ as in (i).

(i) a. Taro-wa ringo ka mikan (ka)-o sagasitei-ru
      T.-TOP apple DJ orange (RC-ka)-ACC looking:for-PRES
      ‘Taro is looking for (either) an apple or an orange.’
      but whichever okay-seem-COP-PRT
      ‘But he doesn’t care which.’

5Note that for some speakers, a pause is needed after the first ka.
Exclusivity of RC-\textit{ka} can be canceled, as illustrated in (6); hence it is pragmatic in nature. The \textit{inclusive-or} reading is available when RC-\textit{ka} is present in (6a): ‘\textit{It seems that Taro is looking for an apple, an orange or something else.}’ However, this is not possible with WSR disjunctions.

(6) Disjunction (A \textit{ka} B (\textit{ka})): 
\begin{enumerate}
  \item Taro-wa [\textit{ringo ka mikan (ka)-o sagasitei-ru rasii T.-TOP apple DJ orange (RC-\textit{ka})-ACC looking:for-PST seem} ‘\textit{It seems that Taro is looking for an apple or an orange.}’ 
  \item Cancelation: 
    Jissai kare-wa ringo mo mikan mo sagasitei-ru-yo actually he-TOP apple CONJ orange RC-mo looking:for-PRES-PRT ‘Actually, he is looking for both of them.’ 
\end{enumerate}

(7) WSR disjunction: 
\begin{enumerate}
  \item Taro-wa ringo-o sagasitei-ru ka mikan-o sagasitei-ru rasii T.-TOP apple-ACC looking:for-PRES DJ orange-ACC looking:for-PRES seem ‘\textit{It seems that Taro is either looking for an apple or an orange.}’ 
  \item Cancelation: 
    #Jissai kare-wa ringo mo mikan mo sagasitei-ru-yo 
\end{enumerate}

To sum up, the exclusivity in disjunctions is not due to the presence of RC-\textit{ka}, given that pragmatic cancelation is possible in (6b). In fact, it is rather WSR disjunction in Japanese that obligatorily obtains \textit{exclusive-or} readings.\footnote{Satoshi Tomioka (p.c.) pointed out to me that syntactic exclusivity can be diagnosed by embedding a disjunction in conditionals.}

3 On the Nature of Exhaustivity Expressed by RC-\textit{ka}

Johannessen (1998) and Hendriks (2004) argue that \textit{either} in \textit{either-or} constructions is neither a coordinator nor a part of coordinate structure, but a focus particle that denotes exhaustivity in a similar manner as \textit{only} (see Progovac 2003 and den Dikken 2006 for the opposing views). If Japanese RC-\textit{ka} is also a focus particle, then its exhaustive nature may be explained. In order to examine it, I use following diagnostics: Nominative-Genitive conversion in (8), and a predicational copula clause in (9), which are incompatible with the exhaustivity of focus particles such as dake \textit{only}’ (Asada 2014).

\begin{enumerate}
  \item Taro [\textit{dake-ga/*dake-no tanon-da} ryoori-wa esukarugo ryoori desi-ta. T. only-NOM/only-GEN order-PST dish-TOP escargot dish COP_policie-PST ‘The dish that only Taro ordered was an escargot dish.’ (adapted from Horie and Saito 1996:142)
  \item Taro\textit{to} Ziro to Hanako-wa [\textit{***satuzinhana to sono itimi (*dake) dat-ta]}. T. CONJ Z. CONJ H.-TOP murder CONJ his band only COP-PST ‘Taro, Ziro and Hanako were only the murderer and his band.’ (Asada 2014:104)
\end{enumerate}

In (i), it does not matter whether Taro bought an orange, an apple or both of them. However, in (ii), it must be only one of the two that Taro bought. It means that disjunction is interpreted as \textit{exclusive-or} when it obtains WSR.
If RC-ka is a focus particle that denotes exhaustivity, then it should also be incompatible with either (8) or (9). However, this prediction is not borne out, as in (10) and (11) below.

(10) [Taro-ka Hanako-ka ga/no tanon-da] ryoori-wa esukarugo ryoori desi-ta.
    T. DJ H. RC-ka NOM/GEN order-PST dish-TOP escargot dish COP_polite-PST
    ‘The dish that Taro or Hanako ordered was an escargot dish.’

(11) Taro-wa [ped satuzinha ka sono itimi ka da].
    T.-TOP murderer DJ his band RC-ka COP
    ‘Taro is the murderer or his band.’

Given these observations, I argue that Japanese RC-ka is not a focus particle that denotes exhaustivity. Advocates of the focus-particle analyses must explain why correlatives and RCs influence the scopal properties of disjunction by marking either the left or the right edge of the coordinate structure, as we have seen above. I conclude that RC-ka is not an exhaustive focus particle, but part of coordinate structure against Johannessen’s (1998) and Hendriks’ (2004) analyses.7

Based on the discussions so far, I argue that RC-ka in Japanese and either in English show parallelism illustrated in the table (12) below.

(12) **Proposal:** RC-ka and either overtly indicate the scopal properties of disjunction.

<table>
<thead>
<tr>
<th>Scope of DJ</th>
<th>English</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSR/WSR</td>
<td>(either) A or B</td>
<td>A ka B (RC-ka)</td>
</tr>
<tr>
<td></td>
<td>[adjacent]</td>
<td>[adjacent]</td>
</tr>
<tr>
<td>NSR</td>
<td>base-generated</td>
<td>base-generated</td>
</tr>
<tr>
<td></td>
<td>nominal DJ</td>
<td>nominal DJ</td>
</tr>
<tr>
<td>WSR</td>
<td>clausal DJ/displaced either</td>
<td>clausal DJ/displaced RC-ka</td>
</tr>
</tbody>
</table>

As already noted, the exclusive-or interpretation is obligatory in WSR disjunctions, as illustrated below.

    M.-TOP maid-ACC looking:for-PRES DJ cook-ACC looking:for-PRES RC-ka COP
    ‘Mary is either looking for a maid or (she is) looking for a cook.’

b. Mary-wa meido ka kokku-o sagasite-ru (ka da).
    M.-TOP maid DJ cook-ACC looking:for-PRES RC-ka COP
    ‘Mary is either looking for a maid or (she is) looking for a cook.’

In (13), sentences become false if Mary is looking for both a maid and a cook. A word of caution is necessary here, however. Miyama (2015:24) observes that examples such as (14) must be base generated as nominal coordination.

(14) a. Taro-wa [koo hii ka ocha (ka)](-no) dochira-ka-o non-da
    T.-TOP coffee DJ tea RC-ka GEN which-ka-ACC drink-PST
    ‘Taro drank either coffee or tea.’

b. *Taro-wa [koo hii-o non-da ka ocha-o non-da (ka)]-no dochira-ka-o non-da
    T.-TOP coffee-ACC drink-PST DJ tea-ACC drink-PST RC-ka GEN which-ka-ACC drink-PST
    Intended reading: ‘Taro either drank coffee or (he) drank tea.’

The sentence (14b), from which (14a) is supposed to be derived, is totally unacceptable. She concludes that in Japanese, a unique derivation of nominal disjunction such as (14a) is independently guaranteed when dochiraka ‘which-ka’ is present. I argue that the distinction is necessary between dochiraka and RC-ka. It is clear that dochiraka gains the exclusive-or reading in a different manner as in WSR, since it lexically means ‘only one of the two.’ Therefore, we should rather

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7 Size of disjunctions may be correlated with the exhaustivity. Anna Szabolcsi (p.c.) pointed out to me that similar observations are made in French and in Hungarian. Since it is beyond the scope of the present study, I leave the discussions for future research. See Szabolcsi (2015) for details.
compare clausal/phrasal disjunctions with RC-ka and the WSR disjunctions with *either*, excluding lexically derived exclusive-or interpretations.

### 4 Syntax-Phonology Mapping in Japanese Disjunction

The proposal (12) faces a problem if we just apply the reductionist analysis to (15a). Previous studies have concluded that sentences like (15a) cannot have *Clausal Connective readings* in (15c) since the structure before deletion (15b) is not grammatical (cf. Miyama 2015).

(15) a. Taro-wa ringo-kana o sagashitei
    T.-TOP apple DJ orange RC-ka-ACC looking:for-PRES
    ‘Taro is looking for either an apple or an orange.’

   b. *Taro-wa ringo-o kana o sagashitei
    T.-TOP apple-ACC looking:for-PRES DJ orange RC-ka-ACC looking:for-PRES
    Intended reading: ‘Taro is looking for either an apple or (looking for) an orange.’

   c. Taro-wa ringo-o kana o sagashitei-ru ka(Taro-ga) kana o sagashitei-ru (ka da)
    T.-TOP apple-ACC looking:for-PRES DJ T.-NOM orange-ACC looking:for-PRES (RC-ka COP)
    ‘Taro is either looking for an apple or (looking for) an orange.’

Following Kuroda’s (1965) insight that disjunctions such as (15a) and (15c) are interrelated, I argue that they are always derived from clausal/phrasal disjunctions when they obtain WSR, through *PF-reanalysis* (Fukui and Sakai 2003).

I propose that sentences such as (15a) are derived from clausal/phrasal disjunctive sentences like (15c) through PF-reanalysis. Fukui and Sakai (2003) analyzes that nominal coordinator to coordinates seemingly non-constituents that are originally VP/TP in Narrow Syntax, as in (16). They analyze that non-constituent coordination is derived through PF-reanalysis, which refers to some sort of operation that applies to the two or more morphological units in the post-syntactic component to create a single unit, which is independently proposed by Halle and Marantz (1993) as *Morphological Merger*.

(16) The PF-reanalyzed constituents in non-constituent coordination (conjunction):

   a. Narrow Syntax: Taro [[VP Hanako ringo 3-tu age] to [VP Kumiko banana 2-hon age]-ta]
      T. H. apple 3-CL give CONJ K. banana 2-CL give-PST

   b. Phonology:
      Taro-wa [NP Hanako-ni ringo-o 3-tu age] to [NP Kumiko-ni banana-o 2-hon] age-ta.
      T.-TOP H.-DAT apple-ACC 3-CL give CONJ K.-DAT banana-ACC 2-CL give-PST
      ‘Taro gave three apples to Hanako and two bananas to Kumiko.’

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8Kuroda (1965) provides descriptively rich observations on *ka*. He distinguishes disjunctive *ka* from other coordinating particles since he assumes that every occurrence of *[[A ka B (ka)] V]* is derived from larger coordinate structures such as *[[VP A V] ka [VP B V] ka] (COP)* as illustrated in (i).

(i)  a. John ka Bill-ga hon-o kat-ta.
     J. DJ B.-NOM book-ACC buy-PST
     ‘John or Bill bought books.’

     b. John-ga hon-o kat-ta ka Bill-ga hon-o kat-ta
     ‘John bought books or Bill bought books.’

     c. John ka Bill-ka ga hon-o kat-ta
     J. DJ B. RC-ka-NOM book-ACC buy-PST
     ‘John or Bill bought books’

     d. John-ga hon-o kat-ta ka Bill-ga hon-o kat-ta ka (desu)
     ‘John bought books or Bill bought books.’

(adapted from Kuroda 1965:85–86)

What Kuroda’s work on disjunctions means here is that the native speakers’ intuition also supports that nominal disjunctions are derived from clausal/phrasal disjunctions.
The case assignment pattern in (17) further supports the PF-reanlysis account since case particles are only attached to nominals (Kuroda 1978, among others). The accusative case particle -o is attached to the entire string of elements coordinated by ka, which is optionally followed by RC-ka as illustrated above.

(17) The PF-reanalyzed constituents in non-constituent coordination (disjunction):

a. Narrow Syntax:

Taro \([_{VP} \text{Hanako ringo 3-tu age}] \text{ ka } [_{VP} \text{Kumiko banana 2-hon age}] \text{-ta}\]

T. H. apple 3-CL give DJ K. banana 2-CL give-PST

b. Phonology:

Taro-wa \([_{NP} \text{Hanako-ni ringo 3-tu age}] \text{ ka}\]

T.-TOP H.-DAT apple 3-CL give DJ

\([_{NP} \text{Kumiko-ni banana 2-hon} (ka)]-o \text{ age-ta}\]

K.-DAT banana 2-CL (RC-ka)-ACC give-PST

‘Taro either gave three apples to Hanako or two bananas to Kumiko.’

(cf. Fukui and Sakai 2003:350)

Since case particles are only assignable to nominals in Japanese, the reanalyzed PF constituents must be nominal.

Fukui and Sakai (2003) discuss that while -to can undergo PF-reanalysis, -mo ‘also’ cannot since it carries clear quantificational force and therefore must be present in the LF representation.

(18) a. Taro-ga \([_{VP} \text{Hanako-ni ringo-o 3-tu age}] \text{ mo}\]

T.-NOM H.-DAT apple-ACC 3-CL give also

\([_{VP} \text{Kumiko-ni banana-o 2-hon age}] \text{ mo si-ta}\]

K.-DAT banana-ACC 2-CL give also do-PAST

‘Taro gave three apples to Hanako and two bananas to Kumiko.’

b. *Taro-ga \([_{NP} \text{Hanako-ni ringo-o 3-tu}] \text{ mo}\]

T.-NOM H.-DAT apple-ACC 3-CL also

\([\text{Kumiko-ni banana-o 2-hon}] \text{ mo} \text{ age-ta}\]

K.-DAT banana-ACC 2-CL also give-PAST

Intended reading: ‘Taro gave three apples to Hanako and also two bananas to Kumiko.’

(Fukui and Sakai 2003:344)

It seems that ka ‘or’ also carries quantificational force as illustrated in (19). The sentence (19a) can be described as (19b), which shows that or carries some quantificational force. This is the de re reading of disjunction (Partee and Rooth 1983). However, the de dicto reading always lacks quantificational force, as in (20).

(19) The de re reading:

a. Mary is looking for (either) a maid or a cook.

b. \(\exists x[(\text{maid‘} (x) \lor \text{cook‘} (x))] \land \text{look-for‘}(\lambda P[P](x))(m))\) (=4c)

(20) The de dicto reading:

a. Mary is looking for (either) a maid or a cook.

b. \(\text{look-for‘}(\lambda P \exists x[(\text{maid‘} (x) \lor \text{cook‘} (x)) \land P](x))(m))\) (=4a–b)

(adjusted from Partee and Rooth 1983)

When disjunctions are quantified in, the de re reading is yielded as in (19). On the other hand, when they are not quantified in, the de dicto reading is obtained (Partee and Rooth 1983). Clausal disjunctions gain WSR, which is obligatorily interpreted as de dicto reading followed by ‘...but I don’t know which.’ Since WSR clausal disjunctions always lack quantificational force, there is no apparent reason to deny the PF-reanalysis approach on disjunction with RC-ka.

Based on these observations, I conclude that RC-ka is inserted during the process of PF-
reanalysis, as in (17). Disjunctions with RC-ka adjacent to nominals are derived from clausal ones when they obtain WSR. After the string adjacent elements are reanalyzed as PF-constituents, RC-ka is allowed to be inserted in the PF-component. It follows that PF-reanalysis is also available in such cases as (21).

(21) PF-reanalysis for clausal disjunction:

a. Narrow Syntax:
   Taro [V[TP ringo sagashitei-ru] ka [V[TP mikan sagashitei-ru]].
   T. apple looking:for-PRES DJ orange looking:for-PRES
→ b. Phonology:
   Taro-wa [V[TP [nominal ringo sagashitei-ru] ka mikan (ka)]-o sagashitei-ru].
   T.-TOP apple DJ orange-RC-ka-ACC looking:for-PRES
   ‘Taro is either looking for an apple or an orange.’

(22) Base-generated nominal disjunction:
   [Taro-wa [NP ringo ka mikan]-o sagashitei-ru].
   T.-TOP apple DJ orange-ACC looking:for-PRES
   ‘Taro is looking for an apple or an orange.’

As in (21a), ringo-o sagashitei-ru/mikan-o sagashitei-ru compose constituents in Narrow Syntax. Therefore, after the gapping of sagashitei-ru in the first conjunct, the surface form becomes identical to the nominal disjunction in (22), 9 which, I assume, is the source of ambiguity between NSR and WSR. In this section, we have seen several properties of RC-ka in disjunction. We observed that the surface form A ka B ka is derivable from clausal disjunction through PF-reanalysis. In the next section, I further investigate the connectivity of ka in Japanese, which supports the unified account of clausal/phrasal disjunction in Japanese and in English.

5 Connectivity of a Disjunctive Coordinator-ka

Or in English is used for connecting various types of categories, which includes CP. 10 Kishimoto (2013), on the other hand, argues that ka ‘or’ in Japanese coordinates only up to the TP domain. In order to propose a unified account of disjunctions in Japanese and English, here we seek for an alternative, which can capture ka in Japanese and or in English in parallel. Kishimoto (2013) observes the distribution of the adverbs and topic-marked NPs in disjunction.

(23) The contrast between VP/CP adverb placements:

   K.-NOM tomorrow/hard run-PRES DJ M.-NOM tomorrow/hard run-PRES RC-ka COP
   ‘Either Ken will run tomorrow/hard or Mari will run tomorrow/hard.’

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9When postpositional phrases are coordinated with RC-ka as in (i), the acceptability is somewhat degraded (Satoshi Tomioka p.c.).

(i) * Taro-wa Tookyoo-kara ka Oosaka-kara ka ki-ta.
   T.-TOP Tokyo-from DJ Osaka-from RC-ka come-PST
   Lit. ‘Taro came either from Tokyo or from Osaka.’
(ii) Taro-wa Tookyoo-kara ki-ta ka Oosaka-kara ki-ta (ka da).
   T.-TOP Tokyo-from come-PST DJ Osaka-from come-PST RC-ka COP
   ‘Taro either came from Tokyo or came from Osaka.’

The contrast seems indeed clear between (i) and (ii). It can be attributed to the differences between case markers and postpositions. Postpositions contain semantic contents, while the case markers do not (Kuroda 1978, Fukui and Sakai 2003, among others). If (i) is derived from (ii) through PF-reanalysis, kara ‘from’ would be inserted in the phonological component, which is followed by the insertion of RC-ka. It would violate a condition defined in Fukui and Sakai (2003:344), which states that particles with semantic contents cannot be inserted in the phonological component.

10 Or may coordinate CP: He said [either [CP that he would eat rice] or [CP that he would eat beans]. (den Dikken 2006:27)
   K.-NOM probably/perhaps run-PRES DJ M.-NOM probably/perhaps run-PRES RC-ka COP
   ‘Either Ken will probably/perhaps run or Mari will probably/perhaps run.’

Another argument is based on the distribution of topic-marked NPs, as illustrated in (24).

(24) The distribution of topic-marked NPs:
      K.-NOM book-TOP read-PRES DJ M.-NOM newspaper-TOP read-PRES RC-ka COP
      ‘Either Ken will read the book or Mari will read the newspaper.’
      Book-TOP K.-NOM read-PRES DJ M.-NOM read-PRES RC-ka COP
      Lit. ‘The book, either Ken will read or Mari will read.’
      (Kishimoto 2013:202–203)

Although Kishimoto’s argument is seemingly convincing given these observations, I argue that the data presented above are not compelling enough to conclude that *ka* is a TP coordinator. In (25), CP adverbs *kitto/tabun* ‘surely/perhaps’ are inside the conjuncts.

      K.-TOP surely hurry-PST DJ perhaps rush-PST RC-ka COP
      ‘Either Ken was surely be in a hurry or he was perhaps in a rush.’
      K.-NOM surely come-PRES DJ perhaps come-NEG-PRES RC-ka COP/will
      ‘Either Ken will surely come or he perhaps will not come.’

Moreover, topic marked NPs may also remain in-situ inside the conjuncts, as in (26).11

(26) The distribution of Topic-marked NPs:
   a. [Ken-wa hon-o yon-da] ka [Mari-wa hon-o
      yoma-nakat-ta] (ka dochiraka da/daroo)
      read-NEG-PST RC-ka which-ka COP/will
      ‘Either Ken read a book or Mari didn’t read the newspaper.’
   b. ? Ken-wa [tosyokan-de wa Chomsky-no hon-ga karir-are-ta] ka
      K.-TOP library-at-TOP Chomsky-GEN book-NOM borrow-can-PST DJ
      [syoten-de wa (C.-no hon-ga) teniire-rare-nakat-ta] (ka dochiraka da/daroo)
      bookstore-at-TOP (C.-GEN book-NOM) get-can-NEG-PST (RC-ka which-ka COP/will)
      ‘Ken either could borrow a Chomsky’s book at a library or could not get the book at a bookstore.’

Based on the above observations, I conclude that Kishimoto’s examples sound unnatural due to some extra-syntactic factors.12 Although the examples sound somewhat strange when a speaker-

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11 A topic is interpreted either thematically or contrastively (Kuno 1972), and when they are used as contrastive topics, they may remain in situ (Kishimoto 2013:202).

12 It is true that there are some elements that are not allowed to occur inside conjuncts, as in (ii) below. In (ii), discoursal particles such as *ne/yō* are inside the conjunct, while *ne/yō* are outside the conjunct in (i). However, it is implausible to argue that *ka* coordinates only up to the TP-domain, disregarding the observations above.

(i) [Ken-ga hasir-u] ka [Mari-ga hasir-u] ka da ne/yō
   K.-NOM run-PRES DJ M.-NOM run-PRES RC-ka COP PRT
   ‘Either Ken will run or Mari will run.’
oriented modal adverb, *daroo* ‘will’ is within each conjunct, other modal adverbs such as *odoroi-ta-koto-ni* ‘surprisingly,’ and *kooun-na-koto-ni* ‘luckily’ (Endo 2007:208–209) may occur inside the conjuncts.

(27) The distribution of the speaker-oriented modal adverbs:

\[
\begin{align*}
\text{Sono supichi-taikai-de-wa Taro-ga odoroitakotoni, yusuoyo-si-ta ka} & \quad \text{that speech-contest-at-TOP T.-NOM surprisingly, victory-do-PST DJ} \\
\text{Hanako-ga kooumnakotoni, yusuoyo-si-ta (ka da soo da) H.-NOM fortunately victory-do-PST RC-ka COP apparently COP} \\
\text{‘At the speech contest, either T. surprisingly won the 1st prize or H. fortunately won the 1st prize.’}
\end{align*}
\]

Why then, in some cases, are CPs coordinated by *ka*, though in others cases acceptability is somewhat degraded? Here is one possible account. In Japanese, a number of homophonous particles exist: e.g. *to* is homophonous between a coordinator *to* ‘and,’ a comitative postposition *to* ‘with,’ and a complementizer-like *to* ‘that.’ A disjunctive particle *ka* also has its homomorphic particle *ka* ‘Q,’ which is exclusively used in the CP domain. I assume that *ka* ‘or’ can syntactically coordinate CPs, but it might sometimes compete with the homomorphic *ka* ‘Q,’ which makes examples somewhat sound unnatural (Naoki Fukui p.c.). Although I need further empirical supports to verify this argument, at least we can see that *ka* ‘or’ may syntactically coordinate CPs, as of this moment. I leave this issue for future research.

6 Conclusion

To sum up, I argued that Japanese RC-ka functions in parallel with *either* in *either-or* construction. Furthermore, we have seen that RC-ka is not a focus particle that denotes exhaustivity, contra Johannessen (1998) and Hendriks (2004). The parallelisms between RC-ka and *either* are summarized in (28).

(28) RC-ka and *either* overtly indicate the scopal properties of disjunction (=12).

<table>
<thead>
<tr>
<th>Scope of DJ</th>
<th>English</th>
<th>Japanese</th>
</tr>
</thead>
<tbody>
<tr>
<td>NSR/WSR</td>
<td><em>(either)</em> A or B [adjacent]</td>
<td>A ka B (RC-ka) [adjacent]</td>
</tr>
<tr>
<td>NSR</td>
<td>base-generated nominal DJ</td>
<td>base-generated nominal DJ</td>
</tr>
<tr>
<td>WSR</td>
<td>clausal DJ/displaced <em>either</em></td>
<td>clausal DJ/displaced RC-ka</td>
</tr>
</tbody>
</table>

We have also seen that PF-reanalysis in the post-syntactic component correctly derives nominal disjunctions from clausal/phrasal ones, which further supports the proposals in (12). Previous studies have just ignored the presence of RC-ka, and made the system of disjunction in Japanese more complex with mere descriptions. If one assumes Japanese disjunction to be somewhat peculiar compared to those in other languages, then it may end up in miscellaneous and evanescent scenario. This study, however, brought NSR/WSR to the fore and brings back Kuroda’s (1965) insight that nominal and clausal/phrasal disjunctions are interrelated. I believe that the present paper contributes to simplification of the cross-linguistic theory of disjunction, through a comparative study of Japanese and English disjunctions.

\[(ii) *[\text{Ken-ga hasir-u ne/yo}] \quad \text{ka} \quad [\text{Mari-ga hasir-u ne/yo}] \quad \text{ka} \quad \text{da} \quad K.-NOM run-PRES PRT \quad DJ \quad M.-NOM run-PRES PRT \quad \text{RC-ka COP} \]

(2013:204–205)

For the detailed discussions on the syntactic status of *to* ‘that,’ see Fukui (1995), and also Kobayashi (2014) for the categorial status of *to* ‘and’ in Japanese.
References


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