The 45th Meeting of the Kansai Linguistic Society
On the PF-based Licensing System of Indeterminate Pronouns: What Must be in the Same
I-Phrase?
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1 Introduction: The Distribution of Indeterminate Pronouns in Japanese

- The upshot of this presentation:
  Indeterminate pronouns and *mo* must be in the same I-phrase.

- Indeterminate pronouns behave as Negative Polarity Items (NPIs) when they appear with *mo* (Kuroda 1965, Hiraiwa 2005).

(1) a. Ken-ga   nani-mo kawa-nakat-ta.
       Ken-NOM what-mo buy-NEG-PAST

       'Ken didn't buy anything.'
    b. Dare-mo sono-kaban-o kawa-nakat-ta.
       Who-mo the-bag-ACC buy-NEG-PAST

       'Nobody bought the bag.'

- These pronouns can be detached from *mo* (Kuroda 1965). This operation, however, is not free but is syntactically restricted (Kishimoto 2001, Hiraiwa 2005, Takahashi 2018). The following subject-object asymmetry thus obtains.

(2) a. Ken-ga   nani-o   kai-mo-si-nakat-ta
       Ken-NOM what-ACC buy-mo-do-NEG-PAST

       'Ken didn't buy anything.'
    b. * Dare-ga   sono-kaban-o kai-mo-si-nakat-ta
         Who-NOM the-bag-ACC buy-mo-do-NEG-PAST

         'Nobody bought the bag.'

- An indeterminate raised to sentence-initial position cannot be associated with *mo*

(3) a. Ken-ga nani-o kai-mo-si-nakat-ta
    b. * Nani-o   Ken-ga   kai-mo-si-nakat-ta
         What-ACC Ken-NOM buy-mo-do-NEG-PAST

         'Anything, Ken didn't buy.'

- The particle *mo* not only attaches to verbs but also to declarative complementizers, in which use it can be associated with indeterminate pronouns contained in the embedded clauses (Sakai 1998, Kishimoto 2001, Hiraiwa 2005).

(4) a. Takesi-ga   dare-ga   sono-hon-o kat-ta   to-mo omowa-nakat-ta.
       Takeshi-NOM who-NOM the-book-ACC buy-PAST that-mo think-NEG-PAST

       'Takeshi didn't think that Anyone bought the book.'
    b. Takesi-ga   Ken-ga   nani-o   kat-ta   to-mo omowa-nakat-ta.
       Takeshi-NOM Ken-NOM what-ACC buy-PAST that-mo think-NEG-PAST

       'Takeshi didn't think that Ken bought anything'

- The particle *mo* cannot be associated with embedded indeterminates across a clause boundary (Kishimoto 2001).

(5) a. * Takesi-ga   Ken-ga   nani-o   kat-ta   to omoi-mo-si-nakat-ta.
         Takeshi-NOM Ken-NOM what-ACC buy-PAST that think-MO-do-NEG-PAST

         'Takeshi didn't think that Ken bought anything.'
    b. * Takesi-ga   dare-ga   sono-hon-o kat-ta   to omoi-mo-si-nakat-ta.
         Takeshi-NOM who-NOM the-book-ACC buy-PAST that think-MO-do-NEG-PAST

         'Takeshi didn't think that anyone bought the book.'

                                                                              (Kishimoto 2001)

- Indeterminate pronouns cannot be licensed by reconstruction, i.e., only the head of the chain is subject to the condition (Kishimoto 2001, Hiraiwa 2005, Takahashi 2018).

(6) * Nani-o$_i$ Takesi-ga   Ken-ga t_i kat-ta   to-mo omowa-nakat-ta.
      What-ACC Takeshi-NOM Ken-NOM   buy-PAST that-mo think-NEG-PAST

      'Anything, Takeshi didn't think that Ken bought.'

2 Previous Research Based on the PF-Interface: Yasui (2019)

2.1 Problems under Syntactic Analyses

(7)   Dative Subjects

    a.   Dare-ni   sono-kodaimozi-ga   yome-mo-si-nakat-ta.
        Anyone-DAT the-ancient-characters-NOM read-mo-do-NEG-PAST

        'Anyone could not understand the ancient characters.'

    b.   Dare-ni   Hanako-no-kimoti-ga   wakari-mo-si-nakat-ta.
        Anyone-DAT Hanako-GEN-feelings-NOM understand-mo-do-NEG-PAST

        'Anyone could not understand Hanako's feelings.'

<div align="right">(Yasui 2019:27)</div>

→The dative subjects are raised to SpecTP (cf Ura 1999)
→ Under the syntactic analyses (Kishimoto 2001, Hiraiwa 2005), (7) should be ruled out.

2.2 Analysis

(8) a.   Taro-ga   dare-o   mati-mo-si   nakat-ta.
        Taro-NOM IND-ACC wait.for-Q-do NEG-PAST

        'Taro did not wait for anyone'

    b. ?? Taro-ga dare-o ^ mati-mo-si nakat-ta.

<div align="right">(*ibid*:28)</div>

→ (8b) is hardly acceptable when the duration of the pause, denoted by ^, is clearly long.

(9) a.   I-phrase corresponds to a clause.
    b.   A moved element constitutes an independent I-phrase.
    c.   An embedded clause of *think*-verbs optionally forms an I-phrase when it is in the complement position.

<div align="right">(An 2007a,b)</div>

(10)   Licensing Condition on NPIs
    An indeterminate pronoun is qualified as an NPI when a negative element c-commands the particle *mo* , and the elements and an indeterminate pronoun are in the same I-phrase.

<div align="right">(*ibid*:33)</div>

(11) a.   [$_{TP}$ Ken-ga   doa-o   ket-ta   ]
        Ken-NOM door-ACC kick-PAST

        'Ken kicked a door.'

    b.   〚 Ken-ga doa-o ket-ta 〛

→ The matrix TP corresponds to an I-phrase, as shown in (11b).

(12) a.   [$_{TP}$ Dare-ni sono-kodaimozi-ga yome-mo-si-nakat-ta]
    b.   〚 Dare-ni sono-kodaimozi-ga yome-mo-si-nakat-ta〛

→ The dative subject is in SpecTP (cf. Ura 1999). The whole TP is an I-phrase, and the dative-marked subject is in the same I-phrase that the negative item and *mo* are in.

(13) a.   [$_{TP}$ Ken-ga nani-o kai-mo si-nakat-ta]
    b. * [$_{CP}$ Nani-o$_i$ [$_{TP}$ Ken-ga t_i kai-mo si-nakat-ta]

(14) a.   〚 Ken-ga nani-o kai-mo si-nakat-ta 〛
    b.   〚 Nani-o 〛 〚 ken-ga kai-mo si-nakat-ta 〛]

→ The moved indeterminate *Nani-o*, 'what-ACC' in (14b) constitutes an independent I-phrase, and (14b) is ruled out due to a violation of (10).

(15) a.   [Takesi-ga [Ken-ga nani-o kat-ta to-mo] omowa-nakat-ta]
    b.   〚 Takesi-ga Ken-ga nani-o kat-ta to-mo omowa-nakat-ta 〛

→ The complement clause of *omow* 'think' optionally constitutes an I-phrase, i.e., the whole clause of (15a) can be an I-phrase.

- The PF-based analysis readily accommodates the data discussed in the previous section.

(16) a. * Nani-o$_i$ Takesi-ga [Ken-ga t_i kat-ta to-mo] omowa-nakat-ta.
    b.   〚 Nani-o 〛 〚 Ken-ga kat-ta to-mo omowa-nakat-ta 〛

→ The moved indeterminate phrase *nani-o*, 'what-ACC' is an independent I-phrase and is not part of the same I-phrase as *mo* and the negative element.

3   Issues

- (17b) is problematic for Yasui's analysis.

(17)   a.   Ken-wa Takesi-ga   nani-o   kat-ta   to-mo   omowa-nakat-ta.
           Ken-TOP Takeshi-NOM what-ACC buy-PAST that-MO think-Neg-PAST

       b.   [Takesi-ga   nani-o   kat-ta   to-mo]$_i$ Ken-wa t_i omowa-nakat-ta.
           Takeshi-NOM what-ACC buy-PAST that-MO Ken-TOP   think-Neg-PAST

           'Takeshi thought that Ken bought nothing.'

(18)   Licensing Condition on NPIs
       An indeterminate pronoun is qualified as an NPI when a negative element c-commands the aprticle *mo*, and the elements
       and an indeterminate pronoun are in the same I-phrase.   (Yasui 2019:33)

- Given Yasui's analysis:

    - The moved embedded CP and the matrix clause are separate I-phrases.
    - The embedded *mo* attached to C and the matrix negative element are not in the same I-phrase (a violation of (18))

- Yasui's analysis cause another problem, i.e. it cannot account for the fact that indeterminate pronouns cannot be licensed by *mo* across a clause boundary.

(19)   a.   * Ken-wa dare-ga sono-kuruma-o kat-ta to omoi-mo si-nakat-ta.
       b.   * Ken-wa Aya-ga nani-o kat-ta to omoi-mo si-nakat-ta.

- Under Yasui's analysis, we have two possible derivations.

(20)   a.   ⟦ Ken-wa dare-ga sono-kuruma-o kat-ta to omoi-mo si-nakat-ta. ⟧
       b.   ⟦ Ken-wa omoi-mo si-nakat-ta. ⟧ ⟦ dare-ga sono-kuruma-o kat-ta to ⟧

→ (20a) wrongly predicts that the sentences in (20) are allowed.
→ Under Yasui's analysis, we have no constraint that rejects (20a) because the embedded clauses in the complement position can optionally form an I-phrase.

- The task of this presentation:
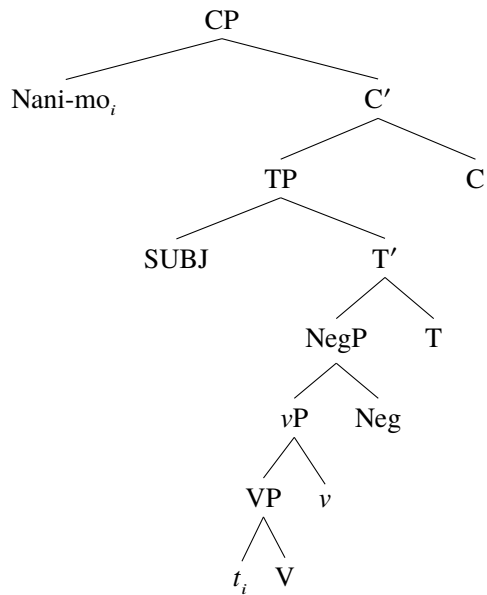 To solve the problems in this section through modifications of Yasui's analysis.

4   Modifications of the Analysis

4.1   On the Syntactic Relation between *mo* and Negative Elements

- The traces of the moved indeterminates with *mo* are c-commanded by negative items.

(21)   a.   Ken-ga   nani-mo kawa-nakat-ta.
           Ken-NOM what-MO buy-Neg-PAST

           'Ken bought nothing.'

       b.   Nani-mo$_i$ Ken-ga t_i kawa-nakat-ta.
           What-MO Ken-NOM   buy-Neg-PAST

           'Ken bought nothing.'

(22)   a.   Takesi-wa   Ken-ga   nani-mo kawa-nakat-ta to   it-ta.
           Takeshi-TOP Ken-NOM what-MO buy-Neg-PAST that say-PAST

           'Takeshi said that Ken bought nothing.'

       b.   Nani-mo$_i$ Takesi-wa   Ken-ga t_i kawa-nakat-ta   to   it-ta.
           What-MO Takeshi-TOP Ken-NOM   buy-Neg-PAST that say-PAST

           'Takeshi said Ken bought nothing.'

(23) a.

```
                          CP
               ┌──────────┴──────────┐
           Nani-mo_i               C′
                          ┌─────────┴─────────┐
                         TP                   C
                  ┌──────┴──────┐
                SUBJ           T′
                         ┌──────┴──────┐
                       NegP            T
                   ┌─────┴─────┐
                  vP          Neg
              ┌────┴────┐
             VP         v
          ┌───┴───┐
         t_i      V
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b.

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                              CP
             ┌────────────────┴────────────────┐
         Nani-mo_i                            C′
                                    ┌──────────┴──────────┐
                                   TP                     C
                             ┌──────┴──────┐
                            vP             T
                     ┌───────┴───────┐
                    CP               v
              ┌──────┴──────┐
            t′_i           C′
                    ┌───────┴───────┐
                   TP               C
             ┌──────┴──────┐        │
           SUBJ           T′        to
                    ┌──────┴──────┐
                  NegP            T
              ┌─────┴─────┐
             vP          Neg
          ┌───┴───┐
         VP        v
      ┌───┴───┐
     t_i      V
```
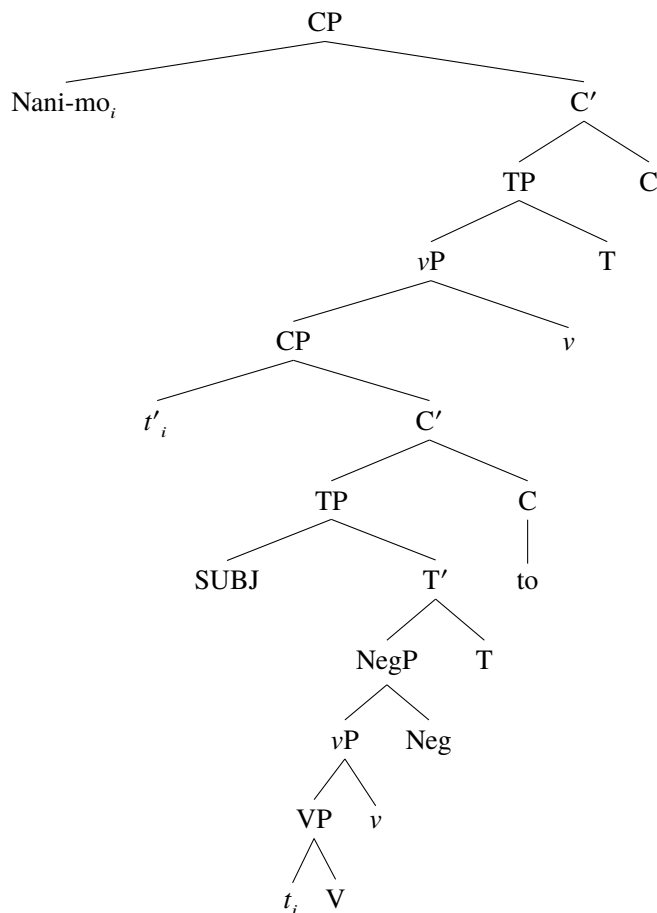
→ In (21b) and (22b), the c-command relation is recoverable by reconstruction.

4.2 On the Optionality of Forming an I-phrase

- Clauses in non-complement position are independent I-phrases (An 2007a,b).

(24) a. John believes that Mary is smart.
      b. John believes Mary is smart.

(25) a. * Mary is smart is believed.
      b. That Mary is smart is believed.

- Kansai Japanese allows null complementizers in the embedded clause (Saito 1986).

(26)   a.   Ken-wa   Aya-ga   kasiko-i to/te omo-te-ru.
               Ken-TOP Aya-NOM smart   that think-PROG

         b.   Ken-wa   Aya-ga   kasiko-i omo-te-ru.
               Ken-TOP Aya-NOM smart   think-PROG

               'Ken thinks that Aya is smart.'

(27)   a.   Ken-wa   Aya-ga   kasiko-i to/te yuu-te-ru.
               Ken-TOP Aya-NOM smart   that say-PROG

         b.   Ken-wa   Aya-ga   kasiko-i yuu-te-ru.
               Ken-TOP Aya-NOM smart   that   say-PROG

               'Ken says that Aya is smart.'

- Complementizers cannot be omitted in non-complement position, on par with English.

(28)   a.   Aya-ga   kasiko-i to/te Ken-wa   omo-te-ru.
               Aya-NOM smart   that Ken-TOP think-PROG

         b. * Aya-ga   kasiko-i Ken-wa omo-te-ru.
               Aya-NOM smart   that   Ken-TOP think-PROG

               'Ken thinks that Aya is smart.'

(29)   a.   Aya-ga   kasiko-i to/te Ken-wa   yuu-te-ru.
               Aya-NOM smart   that Ken-TOP say-PROG

         b. * Aya-ga   kasiko-i Ken-wa   yuu-te-ru.
               Aya-NOM smart   Ken-TOP think-PROG

               'Ken says that Aya is smart.'

→ Clauses in non-complement position must have a phonetically overt complementizer.

- Clauses with a phonetically overt complementizer are I-phrases regardless of the syntactic positions.

4.3 Analysis

(30)   Basic Assumptions

         a.   I-phrases are root clauses, moved elements and clauses with an overt complementizer.   (cf. An 2007a,b)
         b.   The c-command relation between *mo* and negative items is maintained by reconstruction.

- With the assumptions in (30), I recast Yasui's generalization.

(31)   Licensing Condition on NPIs (modified version.)
        An indeterminate pronoun is qualified as an NPI when both of the following conditions are satisfied:

         i.   A negative element c-commands the particle *mo*, and
         ii.   the particle *mo* and indeterminate pronouns are in the same I-phrase.

(32)   [Takesi-ga nani-o kat-ta to-mo]$_i$ Ken-wa t_i omowa-nakat-ta.

- Under (31), (17b), reproduced as (32), is readily accounted for as follows.

    – The trace of the moved embedded clause is c-commanded by the matrix negative element.
    – *mo* and the indeterminates are in the same I-phrase.

- The modified generalization correctly accommodates the fact that indeterminate pronouns cannot be associated with *mo* across a clause boundary.

(33)   a. * Ken-wa dare-ga sono-kuruma-o kat-ta to omoi-mo si-nakat-ta.
         b. * Ken-wa Aya-ga nani-o kat-ta to omoi-mo si-nakat-ta.

(34)   ⟦ Ken-wa omoi-mo si-nakat-ta. ⟧ ⟦ dare-ga sono-kuruma-o kat-ta to ⟧

- Under (31),

    – An embedded clause with the overt complementizer *to* 'that' forms an independent I-phrase.
    – *mo* and the indeterminates are not in the same I-phrase.

5 Concluding Remarks

- Summary of This Presentation
    - Relations between *mo* and negative elements are maintained by reconstruction.
    - Clauses with a phonetically overt complementizer obligatorily form an I-phrase regardless of position.
    - It is not obligatory for negative elements and *mo* to be in the same I-phrase.

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