

1 Introduction

- The aim of this talk is to demonstrate that the binding of reflexive anaphors depends on
  - properties of predicates
  - types of reflexive anaphors
- To see why predicates and anaphors are the key to account for reflexive binding, we will compare
  - the nominal approach: Chomsky (1981, 1986)
  - the predicate-centered approaches: Reinhart and Reuland (1993) and Lidz (2001)
- Observing Japanese data: zibun ‘self’ and zibun-zisin ‘self-self’ anaphors

2 Nominal Approach


  (1) a. Principle A: An anaphor is bound in a local domain.
     b. Principle B: A pronominal is free in a local domain.
     c. Principle C: An R-expression is free.

  (2) a. Bob\textsubscript{j} thinks that [John\textsubscript{i} hates himself\textsubscript{i/∗\textsubscript{j}}].
     b. Bob\textsubscript{j} thinks that [John\textsubscript{i} hates him\textsubscript{∗\textsubscript{i/\textsubscript{j}}}].

‘A theory of nominal types’ – Syntactic properties of referential dependence

- Problem in the Binding Principles

  (3) a. John\textsubscript{i} -ga zibun\textsubscript{i} -o seme-ta (Japanese) · · · The relations between the reflexive and
      -NOM self -ACC blamed
      ‘John\textsubscript{i} blamed self\textsubscript{i},’
      b. John\textsubscript{i} -ga zibun\textsubscript{i} -o osi-ta
      -NOM self -ACC pushed
      ‘John\textsubscript{i} pushed self\textsubscript{i} (physically)’\textsuperscript{1}

\textsuperscript{1}English has an idiomatic reading means ‘work hard’ or ‘endeavour,’ but Japanese does not have such an idiomatic reading.
3 Predicate-Centered Approach

- Reinhart and Reuland (1993) (hereafter, R&R): Reflexivity is a property of predicates

(4) Three major differences between the Binding Theory and R&R’s analyses
   a. Coargument reflexives: predicates constitute reflexive domains
   b. Property of predicates:

<table>
<thead>
<tr>
<th>Inherently reflexive</th>
<th>Non-reflexive</th>
<th>Doubly listed</th>
</tr>
</thead>
<tbody>
<tr>
<td>gedraagt ‘behave’ (Dutch)</td>
<td>haat ‘hates’</td>
<td>wast ‘wash’</td>
</tr>
</tbody>
</table>

   c. Classification of reflexive anaphors into types:

<table>
<thead>
<tr>
<th>SE-anaphors</th>
<th>SELF-anaphors</th>
</tr>
</thead>
<tbody>
<tr>
<td>zich</td>
<td>zichzelf</td>
</tr>
<tr>
<td>simple</td>
<td>complex</td>
</tr>
<tr>
<td>non-reflexivizer</td>
<td>reflexivizer</td>
</tr>
</tbody>
</table>

(5) a. Condition A:
   A reflexive-marked syntactic predicate is reflexive.
   b. Condition B:
   A reflexive semantic predicate is reflexive-marked.

(6) a. A predicate is reflexive iff two of its arguments are coindexed.
   b. A predicate is reflexive-marked iff
      i. it is lexically reflexive, or
      ii. one of its arguments is a SELF-anaphor

   (Reinhart & Reuland 1993: 678)

(7) a. John$_i$ hated himself$_i$.
   b. John$_i$ found [a picture of himself$_i$].

(8) a. Max$_i$ gedraagt zich$_i$ (Dutch) 
   behave himself 
   (Reflexive-marking (i) = (6bi))
   b. Max$_i$ haat zichzelf$_i$
   hates himself
   (Reflexive-marking (ii) = (6bii))
   c. *Max$_i$ haat zich$_i$
   hates himself

(9) Max$_i$ wast {zich$_i$ / zichzelf$_i$}
   wash himself
   (Reflexive-marking (i) = (6bi))

   (Pollard & Sag 1992)

   (9) Doubly listed as inherently reflexive and non-reflexive
4 Reinhart & Reuland (1993) and Zibun / Zibun-zisin

- Application of Reinhart and Reuland’s (1993) analysis to Japanese (Kishida 2005)

  Classification of reflexive anaphors based on their morphological complexity:

<table>
<thead>
<tr>
<th>zibun</th>
<th>simple</th>
<th>→</th>
<th>function</th>
<th>type</th>
</tr>
</thead>
<tbody>
<tr>
<td>zibun-zisin</td>
<td>complex</td>
<td></td>
<td>non-reflexivizer</td>
<td>SE</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>reflexivizer</td>
<td>SELF</td>
</tr>
</tbody>
</table>

- Property of predicates: their analysis seems to explain the contrast in (3)\(^2\)

\[(10)\]
\[
\begin{align*}
a. & \text{John}_1 \text{-ga zibun}_1 \text{-o seme-ta } (= (3)) \\
& \text{-NOM } \text{-ACC blamed} \\
& \quad \text{‘John}_1 \text{ blamed self}_1\text{’} \\
& \text{b. } \ast \text{John}_1 \text{-ga zibun}_1 \text{-o osi-ta } \\
& \quad \text{-NOM } \text{-ACC pushed} \\
& \quad \text{‘John}_1 \text{ pushed self}_1\text{’}
\end{align*}
\]

- Problems in Application of R&R

\[(11)\]
\[
\begin{align*}
\ast \text{John}_1 \text{-ga zibun-zisin}_1 \text{-o osi-ta} \\
& \quad \text{-NOM self-self } \text{-ACC pushed} \\
& \quad \text{‘John}_1 \text{ pushed self-self}_1\text{’}
\end{align*}
\]

\[\ast \quad \text{Why isn’t this predicate reflexivized?} \]

\[\ast \quad \text{Isn’t zibun-zisin a reflexivizer?}\]

\[(12)\]
\[
\begin{align*}
a. & \text{John}_1 \text{-ga zibun-zisin}_1 \text{-o hihan-si-ta} \\
& \quad \text{-NOM self-self } \text{-ACC criticized} \\
& \quad \text{‘John}_1 \text{ criticized self-self}_1\text{’} \\
& \ast \text{b. } \text{John}_1 \text{-ga zibun}_1 \text{-o hihan-si-ta} \\
& \quad \text{-NOM self } \text{-ACC criticized} \\
& \quad \text{‘John}_1 \text{ criticized self}\text{’}
\end{align*}
\]

\[\ast \quad \text{Do these sentences have the same meaning?}\]

---

\(^2\)In English, predicates with reflexive property and the ones without show difference when they are nominalized. In Japanese, the nominalization test does not work to classify predicates.

\[(i)\] Behaving is required. = behaving oneself is required. \(\rightarrow\) ‘behave’ has a reflexive property

\[(ii)\] Kicking is required. \# Kicking oneself is required. \(\rightarrow\) ‘kick’ does not have a reflexive property

\[=\] Kicking someone is required.

It is hard to find ‘pure’ inherently reflexive predicates, but Japanese has a kind of lexically reflexive predicates that morphologically contain the \(z\)-part of \(zibun\) as in (iii). These predicates, however, cannot take arguments, as (iv) indicates.

\[(iii)\] Ziman-suru ‘pride oneself’
Zisatu-suru ‘kill oneself’

\[(iv)\] \(\ast\) John\(_2\)-ga zibun\(_1\)-o zisatu-sita
‘John killed himself.’
5 Distinction based on Semantics


  - The two types of reflexive-marked predicates are semantically different.

(13) a. Lexically (inherently) reflexive-marked predicates

  b. Syntactically reflexive-marked predicates

(14) The Madame Tussaud context (Jackendoff 1992)

  a. Ringo scheert zich
     
     (zich = Ringo, *statue)
     
     shaves self

  b. Ringo scheert zichzelf
     
     (zichzelf = Ringo, statue)
     
     shaves selfself

  ‘Ringo shaves himself’

  (Lidz 2001: (9))

  Additional (statue) reading is available with a syntactically reflexive-marked predicate.

  (R&R (1993) predict that a SELF-anaphor reflexivizes a predicate and it must be identical with the
other coargument of the predicate. This reading of a SELF-anaphor is not predicted by their theory.)

(15) Comparative deletion construction

  a. Zij verdedigde zich beter dan Peter
     
     she defended self better than

     ‘She defended herself better than Peter defended himself’

     * ‘She defended herself better than Peter defended her’

  b. Zij verdedigde zichzelf beter dan Peter
     
     she defended selfself better than

     ‘She defended herself better than Peter defended himself’

     ‘She defended herself better than Peter defended her’

     (Lidz 2001: (11))

  → Lexically reflexive-marked predicate (a) allows only sloppy reading, while syntactically reflexive-
marked predicate (b) allows both sloppy and strict readings.

- Semantic distinction of anaphors

(16) a. Pure-anaphors: require complete identity with their antecedents.

  b. Near-anaphors: referentially dependent on their antecedents, but not necessarily identical
     with them.

(17) a. $\lambda x \ [P (x,x)]$ (semantic / pure reflexive)

  b. $\lambda x \ [P (x,f(x))]$ (near reflexive)

  (Lidz 2001: (13))

(18) Condition $R$

$\lambda x [P (x,x)] \leftrightarrow (\theta 1 = \theta 2)$

semantics $\theta$-grid

(Lidz 2001: (16))
6  Lidz (2001) and Zibun / Zibun-zisin

• Application of Lidz (2001) to Japanese

(19)  The Madame Tussaud context
a. John\_i -ga zibun-zisin\_i  -o kizutuke-ta (zibun-zisin = John, *statue)
   -NOM self  -ACC hurt
   ’John\_i hurt self-self\_i’

b. John\_i -ga zibun\_i -o kizutuke-ta (zibun = John, statue)
   -NOM self  -ACC hurt
   ’John\_i hurt self\_i’

(20)  Sloppy / Strict identity test
a. John\_i -ga zibun-zisin\_i -o yoogo-si-ta. Mary mo soo sita
   -NOM self-self  -ACC defended also so did
   ’John defended himself. Mary defended herself, too.’ (sloppy)
   *’John defended himself. Mary defended him, too.’ (strict)

b. John\_i -ga zibun\_i -o yoogo-si-ta. Mary mo soo sita
   -NOM self  -ACC defended also so did
   ’John defended himself. Mary defended herself, too.’ (sloppy)
   ’John defended himself. Mary defended him, too.’ (strict)

(21)  a. Zibun-zisin: a pure-anaphor
   – requires identity with its antecedent
   – allows only sloppy reading.

b. Zibun: a near-anaphor
   – referentially dependent on its antecedent, but not necessarily identical with it
   – allows both sloppy and strict readings.

• The problems are solved

– The coargument binding in (22) is not accepted, as zibun-zisin does not function as a reflexivizer, but a
  pure-anaphor that requires the identity with its antecedent. Condition R excludes the reading.

(22)?*John\_i -ga zibun-zisin\_i -o osi-ta. (= (11))
   -NOM self-self  -ACC pushed
   ’John\_i pushed self-self\_i’

– Even with a near-anaphor zibun, (23) does not allow the coargument reflexive reading. (The statue reading
  is allowed.) The property of the predicate determines the binding possibility.

(23)  *John\_i -ga zibun\_i -o osi-ta. (= (3b))
   -NOM self  -ACC pushed
   ’John\_i pushed self\_i’
The two sentences in (24) have different semantic interpretations shown in (25) where \( j = \text{John} \). In the Madame Tussaud context, (24b) allows the statue-reading, while (24a) does not.

(24) a. \( \text{John}\_\text{-ga zibun-zisin}\_\text{-o hihan-si-ta.} \) \((= \text{(12)})\)
   ‘\text{John} \_ \text{criticized self-self}’

b. \( \text{John}\_\text{-ga zibun}\_\text{-o hihan-si-ta.} \)
   ‘\text{John} \_ \text{criticized self}’

(25) a. \( \lambda j [\text{hihan-si-ta ‘criticized’} (j,j)] \) \( \cdots \) pure reflexive

b. \( \lambda j [\text{hihan-si-ta ‘criticized’} (j,f(j))] \) \( \cdots \) near reflexive

7 Conclusion

- Property of predicates and types of anaphors determine the availability of coargument binding and the semantic representation.


- The observation of Japanese zibun and zibun-zisin supports Lidz’s (2001) analysis:

  - Reflexive anaphors are classified based on semantic properties (pure- and near- anaphors)

<table>
<thead>
<tr>
<th></th>
<th>near-anaphor</th>
<th>pure-anaphor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch</td>
<td>zichzelf</td>
<td>zich</td>
</tr>
<tr>
<td>Japanese</td>
<td>zibun</td>
<td>zibun-zisin</td>
</tr>
</tbody>
</table>

- Distinction based on morphological complexity (R&R): leads to wrong interpretations of reflexivity

\[ \Rightarrow \text{Crosslinguistical investigation of anaphor types} \]

- The analysis based on Lidz (2001) gives a better account for the binding of zibun and zibun-zisin.

\[ \Rightarrow \text{Classification of predicates based on their properties} \]
References


