Scope and the Nature of Japanese Hoo Comparatives

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1 Introduction

1.1 A Starting Point: Ambiguity and Disambiguation

(1) Watashi-wa John-yori neko-o aishiteiru
I-TOP John-than cats-ACC love.NONPAST
‘I love cats more than John.’ (2a) / (2b)

(2) The two meanings:
   a. ‘Cat Loving Competition (Me vs. John)’: The degree of my love
      of cats is greater than the degree of John’s love of cats.
   b. ‘My Favorite Things (Cats vs. John)’: The degree of my love
      of cats is greater than the degree of my love of John.

(3) Watashi-no-hoo-ga John-yori neko-o aishiteiru
I-GEN-hoo-NOM John-than cats-ACC love.NONPAST
‘I love cats more than John does.’ (2a) / *(2b)

(4) Watashi-wa John-yori neko-no-hoo-o aishiteiru
I-TOP John-than cats-GEN-hoo-ACC love.NONPAST
‘I love cats more than John.’ *(2a) / (2b)

1.2 Goals for the talk today

- Derive the two meanings in (1). (section 3.1)
- Propose a semantic account to explain why the hoo sentences (3) and
  (4) cannot be ambiguous like the one without it (1). (section 3.2)
- Discuss the property of hoo in contrast with intonational focus in
  English (section 4)

1.3 Additional Data

Hoo is a noun that originally means ‘way, direction, side’.

(5) Mae-no-hoo-e tsumete-kudasai.
Front-GEN-hoo-to move-up-please
‘Please move up front.’

Hoo can take clausal complements.¹

(6) [basu-de itta]-hoo-ga iidesu yo.
bus-by go.PAST-hoo-NOM good.NONPAST yo
‘It would be better if you go by bus.’ ‘You’d better go by bus.’

(7) [shira-nai]-hoo-ga yokatta.
know-not.NONPAST-hoo-NOM good.PAST
‘It would have been better if I didn’t know.’ ‘I shouldn’t have known it.’

(8) John-wa [otonashii]-hoo da.
John-TOP quiet.NONPAST-hoo COP.NONPAST
‘He is on the quiet side.’ ‘John is rather quiet.’

2 Assumptions and Formal Tools

2.1 Relational Denotations for Gradable Predicates

Gradable predicates express relationship between individuals and degrees.

(9) a. \[tall] = \lambda d \lambda x. x \text{ is tall to degree } d
   b. \[[\text{interesting}] = \lambda d \lambda x. x \text{ is interesting to degree } d

2.2 Comparative Morphemes

Degree head -er/more, or QP in Bresnan (1973)

(10) a. \[[\text{QP -er much}] \text{ interesting } \rightarrow \text{ more interesting}
   b. \[[\text{QP -er much}] \text{ tall } \rightarrow \text{ taller}

¹By that I mean, complements that has a tense (past/nonpast) morpheme.
2.3 The Direct Analysis for Phrasal Comparatives

Comparative morphemes take three arguments, i.e. two individuals \((x, y)\) and one gradable predicate \(g\), to roughly mean ‘\(x\) is more \(g\) than \(y\) is \(g\)’.

\[
\text{[-er]} = \text{[more]}
= \lambda y \lambda g(d, x, y) \lambda x. \max\{d \mid g(d)(x) = 1\} > \max\{d \mid g(d)(y) = 1\}
\]

The comparative morpheme and \(\text{than}\) form a constituent followed by the extraposition of \(\text{than}\) phrase.\(^2\)

2.4 Application to Japanese Phrasal Comparatives

John-TOP cats-smart
‘John loves cats more than John.’

b. John-wa Mary-yori kashikoi.
John-TOP Mary-than smart
‘John is smarter than Mary.’

No comparative morpheme? The preposition \(\text{yori}\) does the job (Kennedy 2007, Sawada to appear).\(^3\)

\[
\text{[yori]} = \text{[-er]} = \text{[more]}
= \lambda y \lambda g(d, x, y) \lambda x. \max\{d \mid g(d)(x) = 1\} > \max\{d \mid g(d)(y) = 1\}
\]

3 Analysis

3.1 Deriving the Ambiguity

(1) Watashi-wa John-yori neko-o aishiteiru
I-TOP John-than cats-ACC love.NONPAST
‘I love cats more than John.’ (2a) / (2b)

(2) a. ‘Cat Loving Competition (Me vs. John)’: The degree of my love of cats is greater than the degree of John’s love of cats.

b. ‘My Favorite Things (Cats vs. John)’: The degree of my love of cats is greater than the degree of my love of John.

Two truth-conditionally different meanings, two different logical forms.\(^4\)

(16) \(\max\{d \mid \text{I love cats d-much}\} > \max\{d \mid \text{John loves cats d-much}\}\)

\[
\lambda d \lambda x. \max\{d \mid \text{I love (cats) d}(x) = 1\} = \max\{d \mid \text{I love (cats) d}(John) = 1\}
\]

(17) \(\max\{d \mid \text{I love cats d-much}\} > \max\{d \mid \text{I love John d-much}\}\)

\[
\lambda d \lambda x. \max\{d \mid \text{I love (x) d}(I) = 1\} = \max\{d \mid \text{I love (John) d}(I) = 1\}
\]

\(^2\)Or, introduced later by ‘late merge’ Bhatt & Pancheva (2004). (Appendix A)

\(^3\)Or, try a phonologically null \(\text{-er}\) Beck et al. (2004) with a semantically vacuous \(\text{yori}\) ‘than’.

\(^4\)Tense, topic marker, and case particles are omitted in the representation hereafter.
3.2 Explaining the disambiguation

Watashi-no-hoo-ga John-yori neko-o aishiteiru
I-GEN-hoo-NOM John-than cats-ACC love.NONPAST
‘I love cats more than John does.’ (2a) / *(2b)

3.3 The Meaning of Hoo?

Hoo has a contrastive meaning.

Watakushidomo-no-hoo-de itashimasu.
We(humble)-GEN-hoo-by do(humble).NONPAST
‘We (not you) will take care of that.’ (e.g. saying it to a customer)

Dore ‘Which one’ vs. Docchi ‘Which one (of the two)’
a. (Banira-to choko-to maccha-no-naka-de)
   (Vanilla-and chocolate-and greentea-GEN-among)
   {dore/*docchi}-(#no-hoo)-ga oishii?
   {which/which}-{GEN-hoo}-NOM delicious.NPST
   ‘Which one is (#more) delicious (among vanilla, chocolate, and green tea)?’
b. (Banira-to choko-to) {#dore/docchi}-no-hoo-ga
   (Vanilla-and chocolate-and) {which/which}-{GEN-hoo}-NOM
   delicious.NPST
   ‘Which one is more delicious (between vanilla and chocolate)?

3.4 The Structure of Phrasal Comparatives

Step 1: QR cats

Step 2: QR cats

Some concerns:

• About the structure: Movement necessary? Derivationally speaking, when do yori phrases get into the structure?
• About the meaning of hoo: Is it always contrasting the two entities?

4 Discussion

4.1 The Structure of Phrasal Comparatives

The two-step process (English comparatives)\(^5\)

\(^5\)Cf. (Kennedy 2007, Kennedy & Stanley to appear)
Step 2: Raising of the than-phrase

\[ \text{cats} \quad \text{than John} \]

The idea of Parasitic Scope (Barker 2007): The scope target for than phrase does not exist until QR has happened. The than phrase ‘hijacks’ the scope of the other scope taking element, ‘intervening between the quantifier and what would otherwise be its semantic argument’. (Appendix B)

(26) Two-step process (Japanese):
Step 1: Hoo-phrase movement

Step 2: Combining yori-phrase

4.2 Comparison with Focus

Disambiguation by intonational focus (from Rooth (1992)):

a. [She] \text{beats me more often than Sue.} \quad (28)a / *(28)b
b. She beats \text{me} more often than Sue. \quad *(28)a / (28)b

4.2.1 Similarity

Focus movement are sensitive to syntactic islands (Dr¨ubig 1994).6

(29) a. [The fact \text{that John sent not only PRESENTS but also MONEY} to his friends] is surprising.
   b. [The fact \text{that John sent not only PRESENTS to his friends but also MONEY}] is surprising.
   c. *[[The fact \text{that John sent not only PRESENTS to his friends} is surprising} but also MONEY].

(30) Also Reinhart (1991) for locality of phrasal comparatives assuming movement.

6Also Reinhart (1991) for locality of phrasal comparatives assuming movement.
4.2.2 Difference

(33) Focus in Question-Answer pairs:
Q: Who ate the cake?
A1: [John] ate the cake.
A2: # John ate [the cake]

Q: Dare-ga keeki-o tabeta no?
Who-NOM cake-ACC ate Q
‘Who ate the cake?’

A: # John-no-[hoo]-ga keeki-o tabeta.
[John]-GEN-hoo-NOM cake-ACC ate
# ‘John ate the cake (more than someone did)’ OR
# ‘John ate the cake (rather than saying someone else did)’?
Intended: ‘(It is) John (who) ate the cake.’

Unlike intonational focus in English, hoo can only function as contrastive focus?

5 Unsolved: Clausal Hoos?

The proposed denotation of hoo can only take an entity as its argument.

(35) basu-deitta-[hoff]-ga iidesu yo.
bus-by go.PAST-hoo-NOM good.NONPAST yo
‘You should go by bus.’ ‘You’d better go by bus.’

(36) basu-de ikana-[hoff]-ga iidesu yo.
bus-by go-not.NONPAST-hoo-NOM good.NONPAST yo
‘You should not go by bus.’ ‘You’d better not go by bus.’

(37) shira-nai-[hoff]-ga yokatta.
know.not.NONPAST-hoo-NOM good.PAST
‘It would have been better if I didn’t know.’ ‘I shouldn’t have known it.’

(38) John-wa otonashii-[hoff] da.
John-TOP quiet.NONPAST-hoo is.NONPAST
‘He is on the quiet side.’ ‘John is rather quiet.’

(39) \( hoo_{2C} = \lambda ? \lambda f(?, t) : ? \) is one of the two ?s salient in the context \( C \) that we are comparing \( f(?) = 1 \)

6 Summary

• Derived the two meanings in (1).
  → two different logical forms via movement

• Proposed a semantic account to explain why the hoo sentences (3) and (4) cannot be ambiguous like the one without it (1).
  → QR hoo phrases?

• Compared the property of hoo with intonational focus in English
  → Similarity: Locality and contrastiveness; Difference: Presupposition

• Unsolved: Clausal hoos

Appendix

A. Late Merge

‘Late Merge’ of than-phrases (Bhatt & Pancheva 2004): Explains the obligatory extraposition of than phrases, while maintaining the relationship between the comparative morpheme and than-phrases.
(40) a.  

\[ S \quad \text{John} \quad \text{AP} \quad \text{DegP} \quad \text{A} \quad \text{tall} \]

b.  

\[ S \quad \text{John} \quad \text{AP} \quad \text{DegP} \quad \text{A} \quad \text{tall} \quad \text{PP} \quad \text{than Mary} \]

c.  

\[ S \quad \text{John} \quad \text{AP} \quad \text{DegP} \quad \text{A} \quad \text{tall} \quad \text{PP} \quad \text{than Mary} \]

### B. Parasitic Scope

‘Parasitic Scope’ (Barker 2007): Explains the ‘internal’ reading of same, which appears when there is another scope taking elements in the sentence but which doesn’t when there is no other such elements. (Also in Kennedy (2007), Kennedy & Stanley (to appear), Sawada (to appear))

(41) a. The same waiter served John.  
   (deictic / internal)  
   (The same waiter salient in the context served John.)

b. The same waiter served everyone. (deictic / internal)  
   (The same waiter salient in the context served all the people.)
   (There was a waiter who served all the people.)

(42) a.  

\[ \lambda z \text{everyone} \quad \lambda x \text{the same waiter} \quad \text{served} \quad x \]

b.  

\[ \lambda f \text{everyone} \quad \lambda x \text{the same waiter} \quad \text{served} \quad x \]

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