I love our dog more than my husband
The meaning of comparative constructions in English and Japanese

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What does it mean?

(1) I love our dog more than my husband.

(2) Watashi-wa otto-yori inu-o aishiteiru.
‘I love our dog more than my husband.’ [Meaning (a) or (b)]
Structural (syntactic) ambiguity

- Similarly, (3) also has more than one interpretation.

(3) John saw the man with the binoculars.
   a. John used the binoculars and looked at the man.
   b. John saw the man who has the binoculars.

- Two different interpretations for one sentence? How come?
  ⇒ More than one underlying sentence structure

  a'. S
      /   \
     /     \ 
    NP       VP
       |       |
      John   VP
          /   \ 
         /     \ 
        NP     PP
           |       |
          saw   the man  with the binoculars

  b'. S
      /   \
     /     \ 
    S      NP
       /   \ 
      John  VP
         /   \ 
        saw   NP
           /   \ 
          the man with the binoculars
Why care about structural (syntactic) ambiguity?

- It reveals the underlying structure of sentences, which is not obvious just from the surface structure.
- Furthermore, it demonstrates the close connection between the structure (syntax) and meaning (semantics).
- Thus, analyzing structural ambiguity is important for both the theory of syntax and semantics.
- However, in the actual use of language, we don’t get panicked each time we encounter an ambiguous sentence. Normally, the discourse context helps us pick the right interpretation. (e.g. John, who is a detective, has been tracking movement of one man.)
Introduction

Goals of this talk:

1. Analyze structural ambiguity found in comparative constructions in two languages, English and Japanese.
2. Analyze a special case in which the ambiguity disappears in each language.
3. Compare the mechanism of disambiguation in the two languages.
4. Discuss how the ambiguity and disambiguation of comparatives might be linguistically interesting in general.
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Disambiguation by focus

(4) I love our dog more than my husband. [Meaning (a) or (b)]

(5) I love our dog more than my husband. [Meaning (a)]

(6) I love our dog more than my husband. [Meaning (b)]
Q1: Why do some comparatives have more than one meaning?

Q2: Why does intonation (in this case, focus, as indicated by [ ]F) affect the interpretation?
Syntax and semantics of comparatives

(7) I love our dog more than my husband.

(8) Degree to which I love our dog > Degree to which my husband loves our dog

(9) \[ \text{max}\{d | \text{love(dog)(me)(d)}\} > \text{max}\{d' | \text{love(dog)(hubby)(d')}\} \]

\[ \lambda d. \text{love(dog)(me)(d)} \]

I love our dog \( (d-\text{much}) \)

\[ \lambda p. \text{max}\{d | p(d)\} > \text{max}\{d' | \text{love(dog)(hubby)(d')}\} \]

more \[ \lambda d'. \text{love(dog)(hubby)(d')} \]

than my husband loves our dog \( (d'-\text{much}) \)
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Syntax and semantics of comparatives

(10) I love our dog more than my husband.

(11) Degree to which I love our dog >
    Degree to which I love my husband

(12)

\[
\text{max}\{d | \text{love}(!\text{dog})(!\text{me})(d)\} > \text{max}\{d' | \text{love}(!\text{hubby})(!\text{me})(d')\}
\]

\[
\lambda d. \text{love}(!\text{dog})(!\text{me})(d)
\]

I love our dog (d-much)

\[
\lambda p. \text{max}\{d | p(d)\} > \\
\text{max}\{d' | \text{love}(!\text{hubby})(!\text{me})(d')\}
\]

\[
\lambda d'. \text{love}(!\text{hubby})(!\text{me})(d')
\]

more

\[
\text{than} \ \text{I love my husband (d'-much)}
\]
Two different underlying structures:

(13) Degree to which I love our dog > 

Degree to which my husband loves our dog

(14) Degree to which I love our dog > Degree to which I love my husband
What is focus?

- There are many focus-related phenomena. (???)

Example 1: Focusing particles (e.g., only, even)

(15) a. Mary {only/even} introduced $[Sue]_F$ to John.
b. Mary {only/even} introduced Sue to $[John]_F$.

Example 2: Question-answer congruence

(16) a. Who ate the cake?
b. $[Mary]_F$ ate the cake.
c. *Mary ate the $[cake]_F$.

(17) a. What did Mary eat?
b. *$[Mary]_F$ ate the cake.
c. Mary ate the $[cake]_F$. 
What does focus do?

■ Focus introduces a set of alternatives. (?)

(18)  a. Mary only introduced \([Sue]_F\) to John.
     b. A set of alternatives: \{Sue, Bill, Tom, Amy, . . . \}
     c. Focus semantic value of (a):
        \[
        \begin{cases}
        \text{Mary introduced Sue to John,} \\
        \text{Mary introduced Bill to John,} \\
        \text{Mary introduced Tom to John,} \\
        \text{Mary introduced Amy to John,} \\
        \end{cases}
        \]
     d. Focus semantic value of (a):
        \[
        \begin{cases}
        \text{Mary introduced Sue to John,} \\
        \text{Mary introduced Bill to John,} \\
        \text{Mary introduced Tom to John,} \\
        \text{Mary introduced Amy to John,} \\
        \end{cases}
        \]
     e. The meaning of (a):
        Among the set of alternative propositions, ‘Mary
        introduced Sue to John’ is true but not the others.
Why focus disambiguate the meaning of comparatives?

(19) \[ I_F \text{ love our dog more than my husband.} \]

(20) Degree to which I love our dog >

Degree to which my husband loves our dog

\[ \begin{cases} 
\text{I love our dog } d\text{-much,} \\
\text{my husband loves our dog } d\text{-much,} \\
\text{Marcin loves our dog } d\text{-much,} \\
\text{Curt loves our dog } d\text{-much,} \ldots 
\end{cases} \]

\[ \supseteq \quad \uparrow \quad \text{MATCH!} \]
Why (21) does NOT mean (22)?

\[(21) \quad [I]_F \text{ love our dog more than my husband.}\]
\[(22) \quad \text{Degree to which I love our dog} \quad > \quad \text{Degree to which I love my husband}\]

\[
\begin{align*}
[l]_F \text{ love our dog (d-much)} & \quad \downarrow \\
\text{Alternative set} & \\
\text{I love our dog d-much,} & \quad \text{my husband loves our dog d-much,} \\
\text{Marcin loves our dog d-much,} & \quad \text{Curt loves our dog d-much,} & \quad \ldots
\end{align*}
\]

\[
\begin{align*}
\text{more} & \\
\text{than Love my husband (d'-much)} & \quad \Updownarrow
\end{align*}
\]

\[\Leftrightarrow \quad \text{NO MATCH!}\]
Q1: Why do some comparatives have more than one meaning?
   - Structural ambiguity: Two different underlying structures

Q2: Why does focus affect the interpretation?
   - There is a matching requirement between the alternative set created by focus and the content of than-phrase.
   - The focus alternative set reflects what is under consideration at the moment.
   - The content of than-phrase should not be picking out something that is not included in such set, by virtue of the very nature of comparatives.
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Ambiguity and disambiguation in Japanese comparatives

(23) Watashi-wa otto-yori inu-o aishiteiru.
I-TOP husband-than dog-ACC love
‘I love our dog more than my husband.’ [Meaning (a) or (b)]

I-GEN-hoo-NOM husband-than dog-ACC love
‘I love our dog more than my husband (loves our dog).’ [(a)]

I-TOP husband-than dog-GEN-hoo-ACC love
‘I love our dog more than (I love) my husband.’ [(b)]

a.                                     b.
We’ve seen it before...

(26) I love our dog more than my husband. [Meaning (a) or (b)]

(27) \([/]\)

(28) I love [our dog] more than my husband. [Meaning (b)]

Q3: Is the disambiguation by hoo in Japanese the same mechanism with the disambiguation by focus in English?

Q3’: In over words, is hoo a focus marker?

⇒ Not quite.
Can *hoo* function just like focus in English?

(29) A: What kind of ice cream do you like the best?
B1: *[I]_	ext{F} \text{ like chocolate the best.}
B2: I like *[chocolate]_	ext{F} \text{ the best.}

(30) A1: Nani-aji-no aisukuriimu-ga ichiban suki?
‘What flavor of ice cream do you like the most?’
B1: *Choko-no-*hoo*-ga ichiban suki.
Intended: ‘I like chocolate the most.’
B2: Choko-ga ichiban suki.
‘I like chocolate the most.’
Can *hoo* function just like focus in English?

(31) A: Choco-to banira, docchi-no-**hoo-ga** suki?  
Chocolate-and vanilla which-GEN-*hoo*-NOM like  
‘Which do you like better, chocolate or vanilla?’  
B: Choko-no-**hoo**-ga suki.  
Chocolate-GEN-*hoo*-NOM like  
‘I like chocolate better.’

(32) (Situation: There are two handmade dishes, sushi and lasagna.)  
A: Kono osushi, Mary-ga tsukutta rashii yo.  
This sushi Mary-NOM made I.hear SFP  
‘I heard that Mary made this sushi.’  
B: Ja, razania-no-**hoo**-wa dare-ga tsukutta no?  
Well.then lasagna-GEN-*hoo*-TOP who-NOM made Q  
‘Who made the lasagna then?’  
A: Aa, razania-no-**hoo**-wa John-ga tsukutta rashii yo.  
Oh lasagna-GEN-*hoo*-TOP John-NOM made I.hear SFP  
‘Oh, I heard that John made the lasagna.’
### Hoo’s function

Introduces a presupposition that there are two salient things to be compared/contrasted in the discourse. (?)

---

What is presupposition?

- A kind of information in the sentence “that is assumed by the speaker to be shared by him and the hearer” (?)
What is presupposition?

Are these true or false?

(33)  
   a. The president of the U.S. is visiting Japan from the 23rd to 25th.  
   b. The president of the U.S. is visiting Williamstown from the 23rd to 25th.  
   c. The emperor of the U.S. is visiting Williamstown from the 23rd to 25th.

The NP has a presuppositional meaning that there is a unique NP salient in the discourse and known to the speaker and the hearer. (?)

(34)  
   a. The party is on April 30th.  
   b. There will be a party, which will be on April 30th.
What is presupposition?

(35) a. The emperor of the U.S. is visiting Williamstown today.  
   → There exists a unique emperor of the U.S.

b. The emperor of the U.S. is not visiting Williamstown today.  
   → There exists a unique emperor of the U.S.

c. Is the emperor of the U.S. visiting Williamstown today?  
   → There exists a unique emperor of the U.S.

d. If the emperor of the U.S. is visiting Williamstown today,  
   there might be a traffic restriction.  
   → There exists a unique emperor of the U.S.

Presuppositional meanings typically ‘survive’ under negation, question, if-clauses.
These all presuppose that there are two choices in the discourse – the soup and something else.
How special is *hoo*?

- Is a word like *hoo* exotic? Maybe not so much.

(37)  
\[
\begin{align*}
\text{a.} & \quad \text{Both cats have stripes.} \\
\text{b.} & \quad \text{Neither cat has stripes.}
\end{align*}
\]

- *Both* and *neither* also presuppose that there are two things salient in the discourse.
- In some sense, *hoo* shares this property with English determiners *both* and *neither*. 
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Discussion

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Disambiguation by focus vs. by *hoo*

\[(38)\] \[I\]_F \text{ love our dog more than my husband.}  
\text{a. I love our dog more than my husband loves our dog.} 
\text{b. I love our dog more than I love my husband.}

\[(39)\] The focus alternative set: 
\[
\begin{cases}
\text{I love our dog } d\text{-much,} \\
\text{my husband loves our dog } d\text{-much,} \\
\text{Marcin loves our dog } d\text{-much,} \\
\text{Curt loves our dog } d\text{-much,}\ldots 
\end{cases}
\]

- Focus creates a set of alternatives.
- The content of the *than*-phrase must be one of the propositions in the focus alternative set.
Disambiguation by focus vs. by hoo

(40) Watashi-no-**hoo**-ga otto-yori inu-o aishiteiru.
I-GEN-**hoo**-NOM husband-than dog-ACC love
a. ‘I love our dog more than **my** husband loves our dog.’
b. ‘I love our dog more than I love **my** husband.’

- Just like focus, it creates a set of alternatives.
- But unlike the focus alternatives, it is a two-membered set.

(41) The **hoo** alternative: \{ I love our dog *d*-much,
someone else loves our dog *d*-much \}

- The content of the *than*-phrase in (40-a) “my husband loves our dog” matches one of the two propositions in the alternative set.
- But the content of the *than*-phrase in (40-b) “I love my husband” does not match either proposition in the alternative set.
Disambiguation by focus vs. by *hoo*

**Similarities:**

- Both focus and *hoo* create a set of alternatives.
- In both languages, the content of the *than*-phrase has to match one of the members of the alternative set created in the main clause.

**Differences:**

- Focus alternatives aren't necessarily a two-membered set, but alternatives generated by *hoo* must be a two-membered set.
- Focus marks new information in the answer, but *hoo* may not.

(42) (Situation: There are two handmade dishes, sushi and lasagna.)

A: **Razania-no**-*hoo*-wa dare-ga tsukutta no?  
   Lasagna-GEN-*hoo*-TOP who-NOM made Q  
   ‘Who made the lasagna?’

B: **Aa, razania-no**-*hoo*-wa John-ga tsukutta rashii yo.  
   Oh lasagna-GEN-*hoo*-TOP John-NOM made I.hear SFP  
   ‘Oh, I heard that John made the lasagna.’
Conclusion

- By positing two different underlying structures, we can explain the two different meanings in ambiguous comparatives.
- Although the alternative set created by focus and the one from the presupposition of *hoo* are not exactly the same, they nonetheless disambiguate comparative sentences in a similar way.
- When considering ambiguity and disambiguation of comparative constructions in both languages, it is crucial to posit the underlying structures, which are not obvious just from the string of words in a sentence.
- Although English and Japanese exhibit different linguistic properties (not just for comparatives, but in general too), it was shown that there is a fundamental similarity between the two languages at an abstract level.
Thank you!
I hope you enjoyed!

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