Contrastive Topics Revisited

Yurie Hara and Robert van Rooij
Kyoto University
University of Amsterdam
October 26-28, 2007,
38th Meeting of the North East Linguistic Society,
University of Ottawa

Contrastive-marking

- Contrastive meaning can be represented just by prosody as in German (Topic-Focus contour) and English (B-accent, fall-rise tone, H*L-H%)

(1) a. Who passed the exam?
   b. [CT Mary ] passed.
      H*L-H%
   (implicates: ‘Possibly, others didn’t pass.’)

Japanese

- Contrastive meaning can be represented by the combination of prosody and morphology as in Japanese (-wa) and Korean (-nun).

(2) a. Who passed the exam?
   b. MARY-wa ukat-ta
      Mary-Con pass-Past
      ‘[Mary]$_{Con}$ passed.’
      (I don’t know about others)

Plan

- The use of Contrastive Topics is often accompanied by some implicatures. e.g. ‘I don’t know about others.’
- Previous analyses:
  - Partial Answerhood
  - Limited Competence in computing Gricean quantity implicatures
- Our proposal: CT indicates that one of the alternatives is not known to be true.
Büring characterizes Contrastiveness as Partial Answerhood.

The CT-marking generates a Topic value, which is a set of sets of propositions, i.e., a set of question meanings.

The CT-marked sentence is infelicitous if there is no unanswered question in its Topic value.

(3) \( \text{ALLE Politiker sind NICHT korrupt} \) [Büring, 1997]

'It is not the case that all politicians are corrupt.' (\( \neg \forall \))

(Open questions: How many are corrupt? Are most of them corrupt? etc.)

*‘All politicians are such that they are not corrupt’ (\( \forall \neg \))

(No uncertainty: unavailable reading)

Restricting the domain?

One might try to save Büring’s analysis by limiting the domain of the partial-answer requirement to each conjunct.

As long as each of the CT-marked conjuncts can be treated as partial answers, CT-marking is possible.

It doesn’t help

However, this strategy fails since it also predicts the following to be felicitous.

(5) Among John, Mary and Bill, who came to the party?
   a. *\( [\text{CT John and Mary }] \) came, but \( [\text{CT Bill }] \) came.
   b. *\( [\text{CT John and Mary }] \) came, and \( [\text{CT Bill }] \) came.
Generalization

The correct generalization should pertain to the ban on having positive answers for all the alternatives.

(6) The use of a Contrastive Topic is licit:
   a. when the speaker is not sure of the alternatives having the property, or
   b. when the speaker knows that alternatives do not have the property.

Quantity Implicatures from Exhaustivity

(7) a. Who (of Mary and Peter) passed the exam?
   b. Mary.

CT as Limited Competence

Hara's (2005) Proposal

CT-marking specifies that the speaker's competence is limited.

(8) [CT Mary ] passed.

Applying CT-marking to the proposition ‘Mary passed’ generates a primary weak implicature:

- the speaker is not sure that Peter passed, or
- the speaker knows that Peter did not pass.

This seems to be the desired interpretation
An answer to a multiple *wh*-question

(9) a. Who of John and Bill danced with who (of Mary and Sue)?
   b. \([\text{CT John}]\) danced with \([F\text{ Mary}]\) and
      \([\text{CT Bill}]\) danced with \([F\text{ Sue}]\).

- Contrastiveness is represented by a **Topic-Focus structure** as an answer to a multiple *wh*-question.

**The most salient interpretation:**

John danced with only Mary, and only John danced with (only) Mary, and
Bill danced with only Sue, and only Bill danced with (only) Sue.

We’d better not remove the competence

(9) a. Who of John and Bill danced with who (of Mary and Sue)?
   b. \([\text{CT John}]\) danced with \([F\text{ Mary}]\) and
      \([\text{CT Bill}]\) danced with \([F\text{ Sue}]\).

**The Prediction of Limited Competence Approach**

(9-b) implicates:
the speaker does not know that John danced with Sue
→ the speaker considers it to be possible that John danced with Sue.

- This is the **wrong prediction**.

If Competence were removed...

(9) a. Who of John and Bill danced with who (of Mary and Sue)?
   b. \([\text{CT John}]\) danced with \([F\text{ Mary}]\) and
      \([\text{CT Bill}]\) danced with \([F\text{ Sue}]\).

- The Gricean primary implicature:
  the speaker does not know that ‘John danced with Sue’ is true.
- But, this sentence contains CT-marking.
- Hence, the speaker is signalling her limited competence.
- No strengthening.

Interim Summary 2

- Hara [2005] defines CT-marking as an indication that
  the speaker has a limited competence with respect to
  the property in question.
- The effect of CT-marking is to remove the competence assumption.
- This approach also bypasses the last answer problem.
- However, it makes the wrong prediction for the sentence
  which involves a Topic-Focus structure.
Why do we use Topics?

The role of Topic-marking
To draw the hearer’s attention to a particular entry in the set of alternatives.

The reason behind the use of Topic-marking
The speaker doesn’t know that alternative propositions are true. 
(provided that the speaker is following the Cooperative Principle).

CT-rule
- CT$(P(T))$
- CT forms a simple set of Topic-alternatives (a set of propositions) \( \{ P(T') : T' \in Alt(T) \} \)
- CT gives rise to the implicature that one of the Topic-alternatives is not known to be true.

(10) CT-implicature:
\[
\exists T'[T' \in Alt(T)][\neg K_{sp}(P(T'))]
\]

Last answer problem: Good case

(11) a. Of John and Mary, who came to the party?
   b. [CT John ] came, and [CT Mary ] didn’t come.

(12) a. \( P = \lambda x \in D_e.came(x) \);
    b. Topic-alternatives: \{John came, Mary came\}
    c. CT implicature:
       the speaker does not know that Mary came. (Possibly, Mary didn’t come.)

   - The CT implicature, \( \neg K_{sp}(\text{Mary came}) \), is compatible with the second conjunct.
   - The assertion of the second conjunct, \( K_{sp}(\neg (\text{Mary came}) \), merely strengthens the implicature.

Last answer problem: Bad case

(13) Of John and Mary, who came to the party?
    a. *[CT John ] came, but [CT Mary ] came.
    b. *[CT John ] came, and [CT Mary ] came.

   - The CT of the first conjunct implicates \( \neg K_{sp}(\text{Mary came}) \),
   - This contradicts what the second conjunct entails, \( K_{sp}(\text{Mary came}) \).
A structured set vs. a simple set

Unlike Büring’s approach, our proposal does not involve a complicated structure of Topic alternatives.

However, our CT-rule can handle the scope inversion data.

Contrastive Topics Revisited
Hara and van Rooij

Introduction
PA
Limited Competence
Proposal
Summary
References

Scope Inversion

(3) /ALLE Politiker sind NICHT\ corrupt all politicians are not corrupt

a. ‘It is not the case that all politicians are corrupt.’ (¬∀)
implicates ‘Possibly, some are corrupt.’
b. *‘All politicians are such that they are not corrupt.’ (*∀¬)

Contrastive Topics Revisited
Hara and van Rooij

Introduction
PA
Limited Competence
Proposal
Summary
References

¬∀ reading

(14) Topic Alternatives of ¬∀ reading of (3)
{¬all x(politician(x), corrupt(x)),
¬most x(politician(x), corrupt(x)),
¬some x(politician(x), corrupt(x))}

(15) CT-Implicatures of ¬∀ reading
a. ¬Ksp(most x(politician(x), corrupt(x)))
b. ¬Ksp(some x(politician(x), corrupt(x)))

This implies that the speaker thinks that it is possible that some politicians are corrupt.

∀¬ reading

(16) Topic Alternatives of ∀¬ reading of (3)
{all x(politician(x), ¬corrupt(x)),
most x(politician(x), ¬corrupt(x)),
some x(politician(x), ¬corrupt(x))}

(17) CT-Implicatures of ∀¬ reading
a. ¬Ksp(most x(politician(x), ¬corrupt(x)))
b. ¬Ksp(some x(politician(x), ¬corrupt(x)))

Both are incompatible with the speaker’s knowledge entailed by the assertion,
Ksp(all x(politician(x), ¬corrupt(x))).

Thus, the ∀¬ reading is ruled out.
An answer to a multiple *wh* question

(9) a. Who of John and Bill danced with who (of Mary and Sue)?
b. \([\text{CT John}] \text{ danced with } [\text{F Mary}] \text{ and } [\text{CT Bill}] \text{ danced with } [\text{F Sue}]\).

Overall Interpretation

(9) a. Who of John and Bill danced with who (of Mary and Sue)?
b. \([\text{CT John}] \text{ danced with } [\text{F Mary}] \text{ and } [\text{CT Bill}] \text{ danced with } [\text{F Sue}]\).

Putting all together

\([\text{CT John}] \text{ danced with } [\text{F Mary}]\)

- Gricean secondary implicature: \(K(\neg \text{danced(john, sue)})\)
- CT implicature: \(\neg K(\text{danced(bill, mary)})\)

\([\text{CT Bill}] \text{ danced with } [\text{F Sue}]\)

- Gricean secondary implicature: \(K(\neg \text{danced(bill, mary)})\)
- CT implicature: \(\neg K(\text{danced(john, sue)})\)

Summary

- Our formalization of Contrastive Topics involves an operation over a *simple* set of topic alternatives (a set of propositions).
- A complicated structure of alternatives is not necessary to account for the scope inversion data.
- Our approach does not run into the last answer problem since Topic is defined as an indication that *one of the alternatives is not known to be true* rather than a mere uncertainty.
Furthermore, the speaker’s competence for computing Gricean quantity implicatures is retained.

Hence, our approach makes the correct prediction for the construction where a contrast is represented by a Topic-Focus structure as an answer to a multiple *wh*-question.

Summary


