The Meaning of *Too*: Presupposition, Argumentation and Optionality

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8th Tbilisi Symposium on Logic Language and Computation - 21–25 September 2009

1 Introduction

Standard Analysis: The meaning of *Too*

(1) a. John came and [Mary came too].
b. *Assertion:* Mary came
c. *Presupposition:* Someone different from Mary came

(2) a. John came and [**Mary** came too].
b. *Assertion:* Mary came
c. *Presupposition:* Someone different from Mary came

(3) a. John came and [**Mary** came #(too)].
b. *Assertion:* Mary came
c. *Presupposition:* Someone different from Mary came

e.g. [Krifka, 1999]

- *Too* associates with a prosodically marked constituent
- It is an additive operator: $[\text{ADD}[\ldots F \ldots]] : \underbrace{[\ldots F \ldots]}_{asserted} \underbrace{(\exists F' \neq F[\ldots F' \ldots])}_{presupposed}$
  - the predication must be true for an element of the alternative
  - *too* has no asserted content
- The contribution of *too* is based on the uttered lexical content

- When *too* can be used, it should [Zeevat, 2004]

Claims

1. The presupposition of *too* is based only on *asserted* content (not on presupposed or implicated material)
2. *Too* is not systematically obligatory or infelicitous
3. *Too* contributes an assertive component

2 The Presupposition of *Too*

The Presupposition of *too*

Claims of the Section

- The presupposition of *too* cannot be constructed with presuppositional or implicated material and therefore can be bound to propositions differing from its host in terms of truth-conditions.
- The presupposition of *too* can be bound to any type of conveyed content:
  - Presuppositions
  - Implicatures
  - Logical entailments

2.1 Non-Asserted Material

Presuppositions

- *Target sentences:*

  (4) a. It's Ritchie who stole the money.
  b. Lemmy is proud to be an englishman.

- *Assertions:*

  1. Ritchie stole the money.
  2. Lemmy is proud to be an englishman.

- *Presuppositions:*

  1. Somebody stole the money.
  2. Lemmy's an englishman.

Binding the Assertion

(5) a. Ritchie stole the truck and it's him who stole the money too.
b. Lemmy's proud to be a bass player and he's proud to be an englishman too.

Binding the Presupposition

(6) a. #Somebody stole the truck and it's Ritchie who stole the money too.
b. #Ritchie's an englishman and Lemmy's proud to be an englishman too.

Conventional Implicatures

[Potts, 2005]

- *Target sentences:*

  (7) a. Ritchie, that idiot, came to the party.
  b. Unfortunately Ritchie came to the party.

- *Assertions:*

  1. Ritchie came to the party.
  2. Ritchie came to the party.

- *Conventional Implicatures:*

  1. Ritchie is an idiot.
  2. It's unfortunate that Ritchie came to the party.

Binding the Assertion

(8) a. Lemmy came to the party, and Ritchie, that idiot, came to the party too.
b. Lemmy came to the party, and unfortunately Ritchie came to the party too.

Binding the Conventional Implicature

(9) a. #Lemmy is an idiot, and Ritchie, that idiot, came to the party too.
b. #It's unfortunate that Lemmy didn't come, and unfortunately Ritchie came to the party too.

Conversational Implicatures

- *Target sentence:*

  (10) Ritchie asked what time it is.

- *Assertion:* Ritchie asked what time it is.
- *Conversational Implicatures:* Ritchie doesn't know what time it is.

Binding the Assertion

(11) Lemmy asked for the time, and Ritchie asked what time it is too.

Binding the Conversational Implicature

(12) #Lemmy doesn't know the time, and Ritchie asked what time it is too.

2.2 Non-Asserted Antecedents

Too can use any type of material as antecedents for its presupposition:

- *Presupposition:*

  (13) It's Lemmy who stole the truck and somebody stole the money too.

- *Conversational Implicature:*

  (14) Lemmy asked Ronnie whether Linda is on vacation, and Ritchie doesn't know whether she's back too.

- *Conventional Implicature:*

  (15) Lemmy, that idiot, came to the party, and Ritchie is an idiot too: he arrived completely drunk.

3 Optionality of *Too*

Logical Entailments
The presupposition of *too* can also be bound to logical entailments:

(16) Lemmy answerered all the questions and Ritchie most of them too.

- *Too* is optional in (16).

Plan for this Section

- Demonstrate that recent accounts of *too* predict its obligatoriness in (16).
- Argue that, in (16), *too* is optional because it contributes an argumentative content.

Recent Approaches

[Amsili and Beyssade, 2009], [Percus, 2006], [Sauerland, 2008]
Predictions for (16):

1. p = Lemmy answered all the questions
2. p' = Lemmy answered most questions, $p \rightarrow p'$
3. q = Ritchie answered most questions
4. s = Someone different from Ritchie answered most questions
5. The assertion of $q \rightsquigarrow \neg s$ =Nobody except Ritchie answered most questions
6. p' is true and contradicts $\neg s$, therefore *too* is (wrongly) predicted to be obligatory in (16)

3.1 Sensitivity to Argumentation

Claim
The semantics of *too* include an *argumentative* component (à la [Ducrot, 1984] and [Merin, 1999]):

- *Too* conveys *argumentative similarity* between its associate and the associate's equivalent in the presupposition's antecedent.
- The presupposition cannot be bound to an antecedent whose host is *argumentatively opposed* to the host of *too*.

Tools

- Negation and some adverbs (e.g. *only* and *barely*) revert the argumentative orientation of their host.
- *Almost* conveys negation but keeps the orientation of its host.
- Quantifiers usually form argumentative scales : $\langle$*All, most, some, a bit*$\rangle$ and $\langle$*None, few, not all*$\rangle$.

Orientation and Binding

Co-orientation between the presupposition's host and its antecedent's host is necessary, similarity in terms of truth-conditions is not sufficient, cf. (17) vs. (18).

Co-Oriented Antecedents

(17) (In a National Lottery Context.)

a. Lemmy found almost all the numbers and Ritchie found most of them too.

b. Lemmy found almost no number and Ritchie only found a few too.

c. Lemmy found almost no number and Ritchie found few of them too.

Opposed Antecedents

(18) a. #Lemmy found almost all the numbers and Ritchie only found most of them too.

b. #Lemmy found almost no number and Ritchie found a few too.

Argumentative Similarity

Given a specific argumentative goal, *too* can enforce argumentative similarity regarding that goal, cf. (19).

Chacha Drinking Contest

Drinking all his chacha	$\rightsquigarrow$	Success
Drinking most of his chacha	$\rightsquigarrow$	?
Drinking some of his chacha	$\rightsquigarrow$	?
Drinking a bit of his chacha	$\rightsquigarrow$	Failure

(19) How did Lemmy and Ritchie fare at the drinking contest?

a. Lemmy drank all his chacha and Ritchie drank most of it too. [So they both did quite well.]

b. ?Lemmy drank all his chacha and Ritchie drank some of it too. [So they both did quite well.]

c. #Lemmy drank all his chacha and Ritchie drank a bit of it too. [So they both did quite well.]

3.2 Proposal

Assertion of *Too*
Notations:

- $r_H(p)$ designates the relevance of the proposition p to an argumentative goal H. p is positively relevant to H iff. asserting p raises the probability of H. It can be defined in various ways (cf. [Merin, 1999], [van Rooij, 2004]).
- ASSERT selects the asserted part of an utterance (i.e. what is not presupposed, implicated...)

The meaning of a sentence q such that $q = [\text{ADD}[\ldots F \ldots]_q]$ is:

Assertion : $\text{ASSERT}[\ldots F \ldots]_q$

Presupposition : $\exists F' \neq F : \text{ASSERT}[\ldots F' \ldots]_q$

Argumentative Component :

- let p be the presupposition's antecedent and F' the equivalent of the associate of *too* in q, i.e. $p = [\ldots F' \ldots]_p$
- let p' be the proposition obtained by foci substitution: $p' = [\ldots F \ldots]_p$; then:
- *Co-orientation condition:* $r_H(q)$ and $r_H(p')$ must have the same sign
- *Strength similarity condition:* $r_H(q) = r_H(p') \pm \varepsilon$, with ε being "small"

3.3 Applications

Example

(20) Lemmy drank all his chacha and Ritchie drank most of it too. =(19-a)

- *Assertion:* q = "Ritchie drank most of his chacha."
- *Presupposition:* "Somebody different from Ritchie drank most of his chacha."
- *Antecedent:* p ="Lemmy drank all his chacha." ($\rightarrow$ "Lemmy drank most of his chacha.")
- *Substituted Proposition:* p' ="Ritchie drank all his chacha"
- *Argumentative component:* q and p' are argumentatively similar regarding the drinking contest.

Consequences

Obligatoriness
Too is not predicted to be obligatory in (16) and similar examples.

- In those cases *too* is felicitous iff. the speakers wishes to assert the argumentative equivalence of the host of *too* and its antecedent's host.
- If the antecedent of the associate of *too* is identical to it, *too* is predicted to be obligatory: argumentative similarity is trivial.

Variations
Speakers intuitions vary for the examples in (19)

- It could be that the size of ε varies according to speakers, which would explain discrepancies in judgments.
- Argumentative co-orientation is not gradable, and thus no variation is predicted when this condition is not satisfied (e.g. as in (18))

Conversational Implicatures

- *Scalar Implicatures* are predicted to never be bound because they are systematically dis-oriented:

  (21) #Lemmy didn't answer all the questions and Ritchie answered some of them too.

  - *Targeted Implicature*: Lemmy answered some of the questions.
  - *Binding* impossible: *some* and *not all* are argumentatively opposed.

Problems

- If *too* does not belong to the class of items without asserted content a new motivation is necessary to justify that any utterance has itself with *too* as an alternative, e.g. that (22-a) has (22-b) among its alternatives.

  (22) a. John came.
  b. John came too.

- $\Rightarrow$ building alternatives is a larger problem than the meaning of *too*...

4 Conclusions

Summary
I have argued for the following:

- The presupposition of *too* is built exclusively with the asserted content of its host
- This presupposition can be bound to an antecedent conveyed by any means
- *Too* asserts the similarity between its presupposition's antecedent and the proposition resulting from substituting the associate of *too* in the antecedent.
  - if the antecedent is not expressed directly, but a logical consequence of its host, *too* has no obligatory status
  - if the antecedent is directly accessible *too* is obligatory, as predicted by various accounts

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