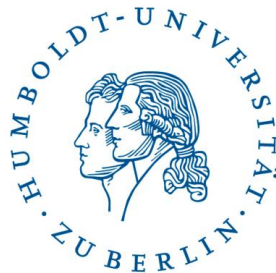# Two scopes of negation in Swedish declarative questions

Heiko Seeliger
seeligeh@cms.hu-berlin.de
Humboldt-Universität zu Berlin

Sinn und Bedeutung 19
Georg-August-Universität Göttingen
2014-09-16

# 1. The puzzle

(1) [A and S are both vegetarians, which is mutually known]

A: 'There are all sorts of restaurants around here; you can pick freely.'

S: Inte finns  det    en vegetarisk  restaurang  här?

*Not  exists there  a   vegetarian restaurant  here*

This is both a declarative and a question and can have the following readings:

* 'There isn't a vegetarian restaurant here, is there?'

    – The speaker **doubts** that there is a vegetarian restaurant.

* 'There wouldn't happen to be a vegetarian restaurant here, would there?'

    – The speaker **suggests** that there might be a vegetarian restaurant, against expectations. This reading requires an out-of-the-blue context.

# 1. The puzzle

- The corresponding English negative declarative question is not licit in this context:

(2) [A and S are both vegetarians, which is mutually known]

   A: There are all sorts of restaurants around here; you can pick freely.

   S: #There is no vegetarian restaurant here?

- ¬φ: 'there is no v. r. here' has to have been asserted or implied in the immediate context:

(3) [A and S are both vegetarians, which is mutually known]

   A: We're going to have trouble eating out in this town.

   S: There is no vegetarian restaurant here?

# 1. The puzzle

Two questions arise:

- In (1), why does the Swedish negative declarative that functions as a question have multiple readings, while the seemingly equivalent English negative declarative question in (2) and (3) only has one?

- Crucially, why does one of the readings for (1) allow the question to occur in a context
  - which is biased towards a <u>positive</u> proposition φ
  - in which we would expect a <u>positive</u> declarative question?

# 2. Theories of declarative questions

General agreement:

- Declarative questions (DQs) are declaratives, i.e. they involve assertions – proposing to add one proposition to the Common Ground (CG).

- There is no question operator involved.

Gunlogson (2008):

- Rising intonation marks <u>contingent commitment</u> of the speaker, which turns into actual commitment as soon as the addressee ratifies the proposition in question

- There need to be obvious context cues that the addressee is in an epistemologically better position than the speaker to ratify the proposition

# 2. Theories of declarative questions

Trinh & Crnič (2011):

- All assertions involve an ASSERT operator that can inflect for person
- Rising intonation marks that ASSERT has a $2^{nd}$ person feature, i.e. a DQ is used by the speaker to propose that <u>the addressee asserts a proposition</u>

Krifka (to appear):

- Falling declaratives: the speaker adds a proposition to CG and takes responsibility for it, i.e. the speaker asserts it
- Rising intonation marks that the speaker <u>requests an assertion</u> from the addressee

# 2.1 Application of DQ theories to the data

(1)  [A and S are both vegetarians, which is mutually known]

A: 'There are all sorts of restaurants around here; you can pick freely.'

S: Inte finns  det    en vegetarisk  restaurang  här?

*Not  exists there  a   vegetarian restaurant  here*

Gunlogson (2008) applied:

* Contingent commitment of the speaker to 'there is no vegetarian restaurant here'

* Contextual cues need to show that the addressee is in a better position to assert this

➢ There are no such contextual cues! (1S) is predicted to be pragmatically inappropriate

# 2.1 Application of DQ theories to the data

(1)  [A and S are both vegetarians, which is mutually known]

A: 'There are all sorts of restaurants around here; you can pick freely.'

S: Inte finns  det    en vegetarisk  restaurang  här?

*Not  exists there  a   vegetarian restaurant  here*

Trinh & Crnič (2011) applied:

• The speaker proposes that the addressee asserts 'There is no vegetarian restaurant here'

• For the addressee to assert this, they need to believe it is true (Sincerity Principle)

• There is no contextual evidence that the addressee believes it is true – the opposite, if anything

➢ Violation of the Sincerity Principle

# 2.1 Application of DQ theories to the data

(1) [A and S are both vegetarians, which is mutually known]

A: 'There are all sorts of restaurants around here; you can pick freely.'

S: Inte finns  det    en vegetarisk   restaurang  här?

*Not  exists there  a   vegetarian restaurant  here*

Krifka (to appear) applied:

- Simplified: REQUEST$_{S,A}$ (ASSERT($\neg\varphi$))
- ➤ This assertion would also be highly likely to violate the Sincerity Principle

# 2.1 Application of DQ theories to the data: Interim summary

- All three theories run into the issue that
  - The addressee (is requested to) assert(s) a negative proposition
  - The context implies that the addressee cannot assert this negative proposition without going back on previous commitments or contradicting him/herself
- So it seems likely the addressee shouldn't directly factor into the speech act like with declarative questions
- Before we get to speech acts, let's look at the exact scope of the negation

# 2.2 What about outer negation?

- There is a polarity mismatch between the context – which strongly implies a positive proposition φ – and the question of the form ¬φ?
- What if the negation is not part of the proposition?
- Like in outer negation polar questions, as proposed by Romero & Han (2004):

(4) (a)  Isn't there a vegetarian restaurant around here (too)?

(b)  Q(¬VERUM(φ)), *which yields*: {¬VERUM(φ), VERUM(φ)}

Meaning: 'Can φ be assumed with a high degree of certainty?'

(5) (a)  Isn't there a vegetarian restaurant around here (either)?

(b)  Q(VERUM(¬φ)), *which yields*: {VERUM(¬φ), ¬VERUM(¬φ)}

Meaning: 'Can ¬φ be assumed with a high degree of certainty?'

# 2.2 What about outer negation?

- Could this approach be extended to declarative questions?

- Since declarative questions lack a question operator, there would really only be two available readings:

(6) (a) ¬VERUM($\varphi$)

   (b) 'You're not really sure [that there is a vegetarian restaurant here]?'

(7) (a) VERUM(¬$\varphi$)

   (b) 'You're really sure [that there is no vegetarian restaurant here]?'

# 2.2 What about outer negation?

- The second reading, repeated here, obviously exists in normal negative declarative questions:

(8) VERUM($\neg\varphi$)?

   A: 'We'll have a hard time eating out in this city.'

   S: 'There really are no vegetarian restaurants here? How could you be so sure, there have to be some.'

- But the relevant reading with wide negation is not the reading we find in (1):

(9) $\neg$VERUM($\varphi$)?

   A: 'I don't know if we'll be able to eat out in this city.'

   S: 'You're not really sure there are any vegetarian restaurants here? How could you be unsure, there have to be some.'

- So VERUM is of no help in this case. Even if negation outscopes VERUM, we do not arrive at the correct reading for a question with fronted negation

# 3.1 High negation in non-interrogatives: Polarity items in questions and rejections

- But we do need to assume a position higher than normal for the negation, as shown by licensing of polarity items:

Positive polarity items: licensed

(10)     A: 'I don't know if I can finish this whole cake.'

S: Inte vill    du   ge   upp **redan**?

*Not  want you give up   already*

'You don't want to give up already, do you?'

Negative polarity items: dislicensed

(11)     A: 'It will be great to see Greenland again.'

S:   Inte har    du   (***någonsin)** varit  på  Grönland?

*Not  have  you   ever            been  on  Greenland*

'You haven't ever been to Greenland, have you?'

# 3.1 High negation in non-interrogatives: Comparable data from German

- German utterances within the same φ-biased context, used to express doubts about the validity of φ can also exhibit unusual behaviour of negation

- In particular:
  - A higher syntactic position (optional)
  - Licensing of PPIs

- And unlike Swedish:
  - Non-fusing of negation with the indefinite article

# 3.2 High negation in non-interrogatives: Comparable data from German

- In regular negative declarative questions, negation must fuse with the indefinite article (12).
- In negative polar questions, negation can optionally not fuse with the article (yielding 'nicht ein', forcing the ONPQ reading (13).

(12)      Es     gibt   hier (*nicht ein / kein) vegetarisches

*There exists here    not    a /    no     vegetarian*

Restaurant?

*restaurant*

'There's no vegetarian restaurant here?'

(13)      Gibt    es     hier (nicht ein / kein) vegetarisches

*Exists there here   not     a /    no     vegetarian*

Restaurant?

*restaurant*

'Isn't there some vegetarian restaurant here?/ Is there no vegetarian restaurant here?'

# 3.2 High negation in non-interrogatives: Comparable data from German

- We can have non-amalgamated negation even in declaratives, by inserting material like discourse particles 'doch wohl' (14) or question tag 'oder?' (15).
- Since non-amalgamated negation can be used as a diagnostic for outer negation (Büring & Gunlogson 2000), it seems that the particles/tag somehow provide a syntactically higher position for the negation

(14)   Es   gibt   hier   doch wohl   nicht   ein vegetarisches

   *There exists here DOCH WOHL  not    a    vegetarian*

   Restaurant?

   *restaurant*

   'Surely there is no vegetarian restaurant here?'

(15)   Es     gibt   hier   nicht ein vegetarisches Restaurant,  oder?

   *There exists here  not    a    vegetarian    restaurant QT*

   'There's no vegetarian restaurant here, is there?'

# 3.2 High negation in non-interrogatives: Comparable data from German

- Another argument that we are looking at two different syntactic positions for negation is that we can (marginally) have both of them in one sentence, but not two instances of high negation:

(16)    Es    gibt  hier  doch  wohl  nicht  kein vegetarisches
*There exists here  DOCH WOHL  not   no   vegetarian*
Restaurant?
*restaurant*
'Surely there's not NO vegetarian restaurant here.'

(17)    *Es    gibt  hier  doch wohl  nicht nicht ein
*There exists here DOCH WOHL  not   not   a*
vegetarisches Restaurant?
*vegetarian    restaurant*

# 3.2 High negation in non-interrogatives: Comparable data from German

- We also find PPIs being licensed (in this case 'schon', 'already') under this kind of negation with a doubt reading (19), but not in assertive rejections (18):

(18)     Peter ist nicht (*schon)    hier.

*Peter is  not      already  here*

'Peter is not here yet.'

(19)     Peter ist doch  wohl  nicht schon    hier?

*Peter is  DOCH WOHL not    already here*

'Surely Peter isn't already here?'

# 3.2 High negation in non-interrogatives: Comparable data from German

- Let's have a look at possible continuations available to the addressee after the speaker has uttered
  - a purely assertive negative declarative containing ostensibly normal, low negation, in (20)
  - a question containing 'doch wohl' and high negation, in (21)
- This should give us insight into the communicative effect that the speaker's utterance has had
- In particular, whether anything has been added to the CG

# 3.2 High negation in non-interrogatives: Comparable data from German

(20)    S: Es regnet nicht.

   *It  rains  not*

'It's not raining.'

A: 'I know, and it surprised me.'

it: 'that it is <u>not</u> raining'

A': '#I don't know, but it would surprise me.'

it: 'that it is <u>not</u> raining'

➢ The speaker intends to make an informative assertion that ¬φ

(21)     S: Es regnet doch  wohl  nicht?

*It  rains*   DOCH WOHL *not*

'Surely it's not raining?'

A: '#I know, and it surprised me.'

it: 'that it is raining'

A': 'I don't know, but it would surprise me.'

it: 'that it is raining'

➢ The speaker does not intend to make an informative assertion about φ or ¬φ. S/he wants to make sure that φ ∉ CG

# 3.2 High negation in non-interrogatives: Interim summary

- The German discourse particles 'doch wohl' can (somehow) make available a position for negation that is higher than the normal position in declaratives

- Since the negation is also in a higher than normal position in Swedish questions like (1), and the G. and Sw. questions are functionally very similar, I will assume we are looking at the same mechanism

- In these higher than normal positions, the negation is not part of the proposition. Instead, it expresses **FALSUM negation** (Repp 2013):

(22) $[[\text{FALSUM}]]^x = \lambda\varphi_{<s,t>}\lambda w. \forall w' \in \text{Epi}_x(w)[\forall w'' \in \text{Conv}_x(w')[\varphi \notin \text{CG}_{w''}]]$

- 'In all worlds that conform to the speaker's knowledge ($\text{Epi}_x$) and to his/her conversational goals ($\text{Conv}_x$), $\varphi$ is not part of CG'

# 3.3 FALSUM in true declarative questions

- FALSUM allows us to capture the fact that the proposition that is at issue in questions like (1) is of positive polarity
- But if we simply insert FALSUM into any one of the theories on DQs discussed earlier, we still get speech acts that should be impossible:

(1)  [A and S are both vegetarians, which is mutually known]
      A: 'There are all sorts of restaurants around here; you can pick freely.'
      S: Inte finns  det    en vegetarisk  restaurang  här?
      *Not  exists there  a   vegetarian restaurant  here*

Interpretation with FALSUM in Krifka's (to appear) framework:

- REQUEST(ASSERT(FALSUM(φ)))
- 'Please add the proposition 'that φ should not be in CG' to CG'
- This is still in contrast to the contextual evidence that the addressee likely considers φ to be true – high negation or not, the addressee should not be able to assert this

# 4.1 FALSUM applied to the puzzle: The two readings, again

(23) S: Inte finns det en vegetarisk restaurang här?

*Not exists there a vegetarian restaurant here*

- 'There isn't a vegetarian restaurant here, is there?'
  - The speaker **doubts** that there are vegetarian restaurants. This requires a context where 'there is a vegetarian restaurant here' has been asserted, implied or entailed.

- 'There wouldn't happen to be a vegetarian restaurant here, would there?'
  - The speaker **suggests** that there might be a vegetarian restaurant. This reading requires a neutral context with respect to 'there is a vegetarian restaurant here'.

# 4.1 FALSUM applied to the puzzle

(23) S: Inte finns det   en vegetarisk  restaurang här?

*Not  exists there  a   vegetarian restaurant  here*

- 'There isn't a vegetarian restaurant here, is there?'
- 'There wouldn't happen to be a vegetarian restaurant here, would there?'
- I propose that these questions are not true declarative questions that directly involve the addressee in the speech acts they perform
- Instead, their questionhood is derived from conversational implicatures
- In this way, I hope to answer why the contexts in which these 'questions' are licit are so different from true declarative questions

# 4.2 FALSUM applied to the puzzle: doubt reading

(1) [A and S are both vegetarians, which is mutually known]

    A: 'There are all sorts of restaurants around here; you can pick freely.'

    S: Inte finns  det    en vegetarisk   restaurang  här?

      *Not  exists there  a   vegetarian restaurant  here*

'There isn't a vegetarian restaurant here, is there?'

- Context biased towards φ

- The speaker proposes that there are zero degrees of strength for having φ in the CG, FALSUM(φ)

# 4.2 FALSUM applied to the puzzle: rejection reading

- The speaker could, however go further with his rejection and outright assert ¬φ, e.g. (24):

(24) S: 'But there's no vegetarian restaurant, which is the only sort that matters.'

A': Yes, there is!

A'': Well, no, but it's only 20 minutes to the big city.

A''': Oh, I thought there was.

- ASSERT(¬φ): at the time of S's utterance, both φ and ¬φ are under discussion
- This is a proper objection. It can be accepted by the addressee (A'''), ¬φ then becomes a mutual commitment
- But it can also be 'answered', either by insisting on φ (A') or by providing arguments for why the original speech act (A) still needs ratification (A'')

# 4.2 FALSUM applied to the puzzle: doubt reading

(25) A: Do you want to go to a restaurant tonight?

S: There is NOT a vegetarian restaurant in this village. No way.

A': Yes, there is!

A'': Well, no, but it's only 20 minutes to the big city.

A''': #Oh, I didn't know that[=there is no v.r. here].

- ASSERT(FALSUM($\varphi$)): the addressee can't very well accept ¬$\varphi$ (A'''') because the only proposition under discussion is $\varphi$

- This objection can only be 'answered', not accepted

- Since the speaker chose the objection that cannot be accepted by the addressee over e.g. (24), it is conversationally implicated that the speaker is either willing to be overruled (A') or to receive additional information (A'')

# 4.3 FALSUM applied to the puzzle: suggestion reading

(26) I'm hungry. There wouldn't happen to be a vegetarian restaurant around here, would there?

- Context neutral with respect to φ
- The speaker proposes that there are zero degrees of strength for asserting φ, but the issue of ¬φ is left open
- If the speaker actually knew that ¬φ, s/he could have asserted that, e.g.:

(27) I'm hungry. Sucks there's no vegetarian restaurant around here.

- Conversational implicature: 'it is only unlikely that φ' because other utterances with higher degrees of certainty about ¬φ have been eschewed
- This is answerable ('question-like') if we assume that discrete truth values are preferred over intermediate ones. 'I don't know whether φ' implicates 'Please tell me whether φ'

# 4.4 FALSUM applied to the puzzle: Two open problems

- In clearly assertive sentences with fronted negation, PPIs lead to ungrammaticality (28).
- If, as proposed, (28) could be a question if the right implicatures were triggered, such a syntactic difference is unexpected.

(28)     A: Now that everyone is here, we can start.

S: Inte är Peter (*redan)    här.

*Not  is  Peter    already here*

'Peter isn't here yet.'

- Even utterances that assert ¬φ can receive a question reading, when this theory predicts they should always function as objections (29) since both φ and ¬φ are overtly asserted.

(29)     [A and S are both vegetarians, which is mutually known]

A: There are all sorts of restaurants around here; you can pick freely.

S: Surely there's no vegetarian restaurant here?

# 5 Summary

- Utterances that appear to be negative declarative questions by form turned out to:
  - Occur in contexts biased in favour of a positive proposition (like positive declaratives)
  - License PPIs, dislicense NPIs (like positive declaratives)
  - In German, allow non-fusion of negation and indefinite article ('nicht ein'), (like ONPQs)
- All of these are the result of syntactically high negation expressing FALSUM, embedding a positive proposition

# 5 Summary

- These utterances' question-like function is derived from conversational implicatures:
  - Doubt: in a context biased towards φ, the speaker seemingly rejects φ, but offers no easy way for the addressee to accept ¬φ. This implicates that the speaker wants additional evidence for φ and/or clarification about its CG status.
  - Suggestion: in a neutral context, the speaker seemingly rejects φ but does not assert ¬φ. This implicates that the speaker considers φ unlikely but is not yet ready to believe ¬φ until the addressee either ratifies or refutes it.

# References

Büring, D. & C. Gunlogson (2000). Aren't Positive and Negative Polar Questions the Same? Manuscript, UCSC.

Gunlogson, C. (2008). A Question of Commitment. Belgian Journal of Linguistics, 22(1):101-136.

Krifka, M. (to appear). Negated Polarity Questions as Denegations of Assertions. In: Kiefer & Lee. Contrastiveness and Scalar Implicatures.

Repp, S. (2013). Common Ground Management: Modal particles, Illocutionary Negation and VERUM. In: Gutzmann & Gärtner. Beyond Expressives.

Romero, M. & C.-H. Han (2004). On Negative Yes/No Questions. Linguistics and Philosophy 27:609-658.

Trinh, T. & L. Crnič (2011). On the Rise and Fall of Declaratives. Proceedings of Sinn und Bedeutung 15:645-660.