Contrast & Implicature

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Overview

• Motivation
• Part I: Suggesting a preliminary taxonomy
  – Fitting in previous research....
  – Conditions and interpretation (preliminary)
• Part II: Pretest
  – How to explore the presence of implicatures?
  – Pilot study using focus particles
• Part III: Proposals for evaluating predictions
  – Intonation as a trigger for implicatures? (S2)
  – Further plans
Realisation of contrast

- Phonological difference:
  - Pierrehumbert & Hirschberg (90): L+H* for contrast, H* for NF
  - Selkirk (02): L- phrase accent after contrast.

- Phonetic (continuous) difference:
  - Ladd (93): contrast is extra high or ‘boosted’

- No difference (position is important):
  - Krahmer & Swerts (01), Bolinger

Assumption

- Previous Research: different kinds of contrast
  - ... Nein, nicht in die Innenstadt. Sie fuhr zum BAHNhof.
  - Mary buys t_i and Bills sells [pictures of Elvis]_i.
  - Did you feed the animals? -- I fed the CAT.
  - There are MOvies and there are MOvies.
  - John_1 called Bill_2 a republican and then he inSULted him.
  - John_1 called Bill_2 a republican and then HE insulted HIM.
Part I:

Suggesting a taxonomy of contrast

Grouping: 1) Corrections

- Almost prototypical example of contrast
- Condition: correction of (contrast to) explicitly stated element
- Effect: substitute believed item by contrasted one
  \[\Rightarrow\] Very prominent realisation:
    - hyperarticulation
    - higher amplitude, longer duration, extended $f_0$-range
Grouping: 2) Pragmatic contrast

Did you feed the animals? -- I fed the CAT.
Und von was träumst du NACHTS?

- Condition: contrast to element that is not yet salient in the discourse
- Effect:
  - Find out to which item the contrast is established
  - work out an implicature (and react to it)
  ⇒ marked realisation (higher effort)

Grouping: 3) Linguistic contrast

*Economy* class is **300 Euro**, *business* class is **200**.

- Condition: contrast can be established
  - to accessible elements
  - between new elements (⇒ orthogonal to information structure!!)

- Effect:
  - create expectation
  - facilitated processing
  ⇒ realisation marked
Narrow focus vs. broad focus

- Narrow focus criteria: Accent highlights only focussed word
  Why do you ROB banks?
  Why do you \([F \text{ rob}]\) banks?  nf on verb

- Broad focus has ambiguous focus domain:
  A: Why do you rob BANKS?
  B: Because that’s where the money is.
  Intended structure: Why do you \([F \text{ rob banks}]\)?
  Understood structure: Why do you rob \([F \text{ banks}]\)?

Grouping: 4) Narrow focus

- Methods for eliciting nf:
  focus priming questions (answers non-elliptical):
  Who went to Boston? -- \([F \text{ I}]\) went to Boston.

- Narrow focus often equated with contrast

- Effects:
  Only one accent in the phrase, deaccenting after nucleus
  ⇒ relative salience/prominence
  syntagmatic contrast (?)
**Broad focus**

- Focus projection: Broad focus allows for projection of focal domain:
  
  Why do you \[\text{Frob banks}\]?
  
  Because that’s \[\text{where the money is}\].

- More than one accent possible (to mark domain of focus)

- Nuclear (last) accent often downstepped \(\Rightarrow\) not very salient
Why preliminary?

• Categories or continuum?
• No predictions about (intonational) realisations
• How to evaluate effects for addressee?
  – Especially, how to test implicational force?

Scalar Particles...

Part II:

Pretest: Methods for exploring the presence of implicatures
How to explore implicatures?

Contrast to a speaker-salient element

Pragmatic (implicit) contrast

Work out implicature element (and react to it)

What are implicatures?

Informal Description:
By uttering a sentence S a speaker implies p

- if S allows the conclusion that p,
- if p was not literally stated by S

- conventional: linked to lexical/gramm. items (often confused with presuppositions)
- conversational: assumption about the observance of the cooperative principle
How to explore implicatures?

- Use scalar (= focus) particles
  - Only Peter went to Paris. (and nobody else did)
  - Literature: Focus particles evoke conventional implicatures with restricted alternatives

Argument

- Scalar Particles (and topicalisation) trigger implicatures (alternatives)
- Assumption: Reactions to utterances with these elements contain contrasting element
- If assumption is valid:
  ⇔ Same method can be used to determine generally whether (contrastive) implicatures are present
Pilot study: Stimuli

- Pragmatic (implicit) contrast through scalar particles (+ topicalisation + quantifier)
- For comparison: linguistic (explicit) contrast where contrast is coded in the linguistic structure

Pilot study: Method

- Task: Textual completion of mini-dialogues
- 6 native German subjects were asked to continue a “turn” or to react to a textual stimuli.
Example stimuli

A: Einige Kinder sind schon nach Hause gegangen.

___________________________________________

___________________________________________

A: Die **anderen** werden auch bald abgeholt.  
B: Was ist mit den **anderen**?

Pilot study: Method

- Task: Textual completion of mini-dialogues
- 6 native German subjects were asked to continue a “turn” or to react to a textual stimuli.
- They were asked to “drive the conversation”
- Emphasis could be marked by capitals
Pilot study - Stimuli (I)

- 7 sentences with linguistic contrast:
  - Bayerische Schüler sind besser als saarländische.
  - In Deutschland gibt es mehr Arbeitslose als in Frankreich.
- 7 sentences with implicit contrast:
  - Hoffentlich haben Deine Freunde am Gardasee wenigstens schönes Wetter.
  - Sonst hat es Weihnachten immer geschneit.
- 3 fillers

Pilot Study - Hypotheses

- Linguistic (explicit) contrast
  - more continuations
  - no contrast to elements in stimulus utterance
- Pragmatic (implicit) contrast
  - more reactions
  - contrast to some element in stimulus utterance
- Criterion: only explicit contrast is counted
  Sonst hat es Xmas immer geschneit.
  Mußt Du halt nach Norden fahren, ....
Pilot study - Results

• Subjects preferred reactions to stimuli, irrespective of kind of contrast ⇒ due to task!
• Particles + quantifier indeed showed a higher occurrence of contrastive reactions ⇒ method for finding implicatures ok!
• Topicalisation hardly triggered contrast
• Subjects did not contrast the same items! ⇒ due to internal prosody: ”even in silent reading, prosody is projected onto written sentences” (Fodor02)

Descriptive analysis: clear trend

(Numbers not significant)
Pilot study as a spring-board

• Completion of mini-dialogs is a reasonable method to investigate the presence of implicature
  (reaction with contrastive elements)
  ➔ Is intonation comparatively strong?

• Problematic cases:
  – temporals (finally, before--nowadays)
  – personal statements (using 1st person pers. pron)
  – topicalisation
  – ironic reactions ➔ use unpersonal webexp?

Part III:

Proposals for evaluating predictions
**Intonation triggers implicature:**

**Argument**

- Utterances with particles use contrastive accent to mark focus.
- The truth-conditions of (written) sentences do not change if scalar particles are removed, but the implicature disappears.
- The contrastive accent does not disappear if the particles are removed from the signal.

**Method**

- Recording of 10 utterance pairs, like:
  - Manchmal gibt es an Ostern Schnee.
  - Manchmal gibt es an Ostern sogar Schnee.
- Task: response to utterances
  - group A: written response to written stimuli (random split presentation)
  - group B: oral response to stimuli where particles are removed (random split presentation)
### (S2) Hypotheses

- **Group A: written material and response**
  - stimuli without particle do not evoke contrastive reactions
  - stimuli with particles do (implicature)
- **Group B: spoken material and response**
  - stimuli without particle do not evoke contrastive reactions (control condition)
  - stimuli with removed particle do
    \[ \Rightarrow \text{intonation triggers the implicature} \]

### Results

- Presented in September 2002!
- Theoretic goal: Underpin taxonomy
  - Find solid criteria for distinction between linguistic and pragmatic contrast
  - Explore methods for evaluation
- P-goal:
  - Analyse the realisations of the different kinds of contrast

The end...
Open Questions

- Conventional implicature or presupposition?
- When does contrast count as contrast?
- Concept of narrow focus: only a linguistic artefact?!!