

Contrast & Implicature

Bettina Braun



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



W
K
R
R
R

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



W
K
R
R
R

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.
 - John₁ called Bill₂ a republican and then he inSULTed him.
 - John₁ called Bill₂ 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
 - ⇒ 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



BOOK ROOM

Narrow focus vs. broad focus

- Narrow focus criteria: Accent highlights only focussed word
 - Why do you ROB banks?
 - Why do you [_F 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 rob banks]?
 - Understood structure: Why do you rob [_F banks]?



BOOK ROOM

Grouping: 4) Narrow focus

- Methods for eliciting nf:
 - focus priming questions (answers non-elliptical):
 - Who went to Boston? -- [_F 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 (?)

Natural-ness?



W
K
G
M
P
O
O
P

Broad focus

- Focus projection: Broad focus allows for projection of focal domain:
 - Why do you [_Frob banks]? (VP)
 - Because that's [_Fwhere the money is]. (N)
- More than one accent possible (to mark domain of focus)
- Nuclear (last) accent often downstepped
 - ⇒ not very salient



W
K
G
M
P
O
O
P

Conditions for Speaker

Effect for Addressee

Contrast to explicitly stated element

Corrections,
metalinguistic contrast

Change that element in belief state

Contrast to a speaker-salient element

Pragmatic (implicit)
contrast

Work out implicature (and react to it)

Contrast to salient element (or between given/new elements)

Linguistic (explicit)
contrast

Facilitated processing, create expectation

Instantiation of new element in open-proposition

Narrow focus

Instantiate new element

Linguistic meaning ↓

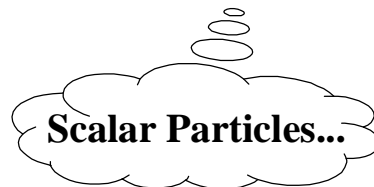
↑ Salience in Perception



W
X
Y
Z

Why preliminary?

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



W
X
Y
Z

Part II:

Pretest: Methods for exploring the presence of implicatures



BOOK ROOM

How to explore implicatures?

Contrast to a speaker-salient element

Pragmatic (implicit) contrast

Work out implicature element (and react to it)



BOOK ROOM

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



BOOK

How to explore implicatures?

Contrast to a speaker-salient element

Pragmatic (implicit) contrast

Work out implicature element (and react to it)

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



BOOK

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,



BOOK ROOM

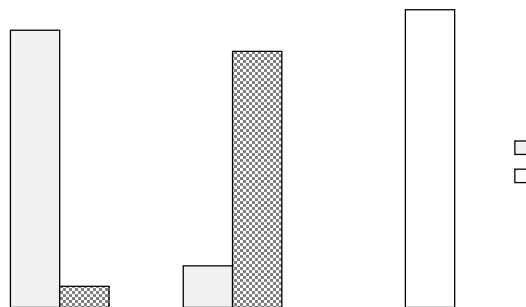
Pilot study - Results

- 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)



BOOK ROOM

Descriptive analysis: clear trend



(Numbers not significant)



W
K
H
O
O
P

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?



W
K
H
O
O
P

Part III:

Proposals for evaluating predictions



W
K
G
M
P
O
O
R



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



W
K
G
M
P
O
O
R

(S2) Intonation & Implicature: 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
 - ⇒ 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?!?

