Something Empirical about Focus

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1. *Foci*

**A little discouragement**

The category focus is notoriously obscure.

*von Stechow (1991)*
1.1. Motivation

(1) Frank is reading a book. Who is reading [a book]?
(2) Frank is reading a book. What is Frank reading?
(3) Frank is reading a book. What does Frank do with a book?

\[\text{Does Frank still use his books to support his furniture?}\]

Observation: What answers a question is specially accentuated.
1.2. Kinds of Foci

**Phonetic Foci** are specially accentuated.

**(Morpho-)Syntactic Foci** must be placed somewhere in a sentence.

**Semantic Foci** are special constituents of sentences which associate with certain operators and contribute to the denotation of an expression.

**Pragmatic Foci** can be modelled as answers to background questions and give rise to context-dependent conclusions (implicatures). Usually they are new in the discourse or for at least one discourse participant.
1.3. Overview of the Terminology

<table>
<thead>
<tr>
<th>( \psi ) Subjekt</th>
<th>( \psi ) Prädikat</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theme</td>
<td>Rheme</td>
</tr>
<tr>
<td>Topic</td>
<td>Comment</td>
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<tr>
<td>Topic proper</td>
<td>Topic[Rest]</td>
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<tr>
<td>Ground</td>
<td>Focus</td>
</tr>
<tr>
<td>Link</td>
<td>Tail</td>
</tr>
<tr>
<td>Ground</td>
<td>Focus</td>
</tr>
<tr>
<td>Background</td>
<td>Focus-Phrase</td>
</tr>
</tbody>
</table>

(H. Paul)  
(Daneš)  
(z.B. REINHART (1982))  
(Prague School, Hajičová)  
(formal Semantics)  
(Vallduví)  
(formal Semantics)  
(late Krifka)
1.4. Syntax: Where to put a focus

(Vallduví, Hajičová, É. Kiss).

(4)  
  a. Trueman è morto.
  b. È morto Johnson.
1.5. Semantics: Association

1.5.1. Examples

(5) Frank only reads books on focî.

(6) Frank only reads books on focî.

(7) Frank only reads books on focî.

We should of course not focus solely on only alone but always also look at even other focus operators.

(8) Frank even only reads books on focî.

(9) Frank even only reads books on focî.

(10) Franz even only reads books on focî.

Here, semantic and phonological focî do not really fit together any more!
1.6. Scalar Implicatures

(11) I passed.

(12) I *passed*.  
    ... but could have done better

(13) I passed.  
    ... the others didn’t!

Then everyone else will have aced!

**Quantity**  
(Grice (1968))

1. Make your contribution to the conversation as informative as necessary.
2. Do not make your contribution to the conversation more informative than necessary.

**Quality**

1. Do not say what you believe to be false.
2. Do not say that for which you lack adequate evidence.

[Semantic] Focus theories treat these cases similarly to semantic focī.
2. Empirical Investigations on Focus Constructions

**Fundamental Question**  Which of the effects we observe with ‘focus constructions’ are really due to focus constructions and which of them are caused by context?

**Fundamental Problem**  Neutral contexts where only effects of focus constructions show are difficult to construct as communication rarely takes place out-of-the-blue and in a setting without any context.

**Second Fundamental Problem**  If you’ve grown used to a certain reading of a construction, it is fairly difficult to find a new one, even and especially if you are a linguist.

**Really Fundamental Problem**  The empirical foundations of focus theories are shaky.
2.1. Second Occurrence Foci

2.1.1. Experiment

**Hypothesis** Generally, precisely pragmatic foci bear focus accents; semantic foci only bear a focus accent if they are also pragmatic foci. Focus accents do not directly semantically disambiguate sentences.

**Method** In the experiment, 12 test persons were offered recordings of short dialogues which only differed in the accentuation of the last answer. Test persons rated the dialogues for naturality and understandability.

Schmitz et al. (2001)
2.1.2. The Text

(14) a. Wen hat Peter heute gefüttert?
   Whom did Peter feed today?
   Today, Peter only fed Mimi.
c. Wer hat sonst noch nur Mimi gefüttert?
   Who else only fed Mimi?
d. Anne hat nur Mimi gefüttert.
   Anne only fed Mimi.

pragmatic focus — semantic focus

The following words were accentuated:

1. Anne
2. Anne and Mimi
3. Mimi
4. gefüttert
5. Mimmi and gefüttert
2.1.3. Variables

**independent variables:** Accentuation of the words *Anne, Mimi, gefüttert*

**dependent variable:** Judgment of naturality and understandability.
2.1.4. Result

Accentuation of constituents that were not focused was rated bad. Dialogues in which only the pragmatic focus was stressed were rated better than those where also or only the semantic focus was accentuated.

2.1.5. Result of the Series of Experiments

The hypothesis was supported by one of three experiments, by the others it was not falsified.

Test subjects avoid constructions with multiple focus.
2.2. Can Foci be Assigned to Contexts?

- two-stage experiment
- focus utterances in picture stories

**First Stage**  How does accentuation work when reading aloud?

**Second Stage**  Do test subjects agree which utterance fits which story?
2.2.1. Variables

First Stage

**Independent variable**  ‘controlled’ context that should focus certain focī

**Dependent variable**  Accentuation of ‘interesting’ words

Second Stage

**Independent variable**  Story fits utterance

1. story read — story viewed
2. intonation fits — does not fit sentence

**Dependent variable**  Judgment of appropriateness
2.2.2. Result

No statistically significant result.

First Step  Accentuation often did not fulfill expectations

Second Step  Focus accentuation did not seem to influence appropriateness ratings.
3. Experiments

3.1. Considerations when Designing Experiments

**test of acceptance**  Test persons accept a lot.

**production experiment**  test persons refuse to say what we want.

**testing interpretation** — if possible non-linguistically — seems to be the method of choice.
3.2. Exhaustivity

Well-known Claim: Foci are interpreted exhaustively.
It’s all the fault of Grice (1968) and his maxims.

3.2.1. Typical Examples Quoted by Linguists

(15) a. Who of the IKP staff had a beer together yesterday?
    b. Bernhard and Bernhard.

(16) a. Who had a beer together yesterday?
    b. Some people of the IKP staff and some participants of the ILLC day from Amsterdam.
    c. Bernhard and Bernhard.

Aspects of mention-some answers

- relevance
- competence of the speaker — epistemic force

Should we really generally assume exhaustivity?
3.2.2. Scenario
3.2.3. Stimulī

(17) a. Die Sterne, die rot sind, befinden sich rechts.
b. Die blauen Quadrat befinden sich rechts.
c. Rechts befinden sich die gelben Kreise.
d. Rechts befinden sich die Quadrat, die rot sind.

(18) a. The stars that are red are on the right.
b. The blue squares are on the right.
c. The yellow circles are on the right.
d. The squares that are red are on bright.
Die Sterne, die rot sind, befinden sich rechts.
The stars that are red are on the right.
Die blauen *Quadrat*e befinden sich rechts.
The blue *squares* are on the right.
Die [blauen Quadrate] befinden sich rechts.
The [blue squares] are on the right.
3.2.4. Variables

**independent variables**

- Placement of the focus: preverbally or postverbally
- medium: written text or (synthesised) speech

**dependent variable** Exhaustivation of focī, to be ‘measured’ by placement of the figures

- Is any focus interpreted exhaustively?
- Does focus projection occur?
3.3. Exclusivity under Con-/Disjunction

3.3.1. Typical Examples Quoted by Linguists

(19) a. How many people had what menu in the mensa yesterday?
    b. 400 people had menu 1, 600 menu 2 and 80 had salad.

3.3.2. Dubious Examples?

(20) a. How many people had what side-dishes with menu 2 in the mensa yesterday?
    b. 310 had chips, 280 potatoes, 400 salad and 190 vegetables.
3.3.3. Scenario
(21)  a. Wie haben denn in der Pause die Leute ihren Kaffee getrunken?
b. Zwei Leute hatten *Milch* und drei hatten *Zucker*.
c. Vier Leute hatten *Milch* und vier hatten *Zucker*.

(22)  a. How did people drink their coffee in the break?
b. Two had *milk* and three had *sugar*.
c. Four had *milk* and four had *sugar*.
Zwei Leute hatten Milch und drei hatten Zucker.
Two had milk and three had sugar.
Vier Leute hatten Milch und vier hatten Zucker.
Four had milk and four had sugar.
3.3.5. Variables

**independent variables**

- compatibility (constantly: yes)
- More cups than items mentioned. (varies)

**dependent variables** exclusivity of focī in the conjunct

- Do test subjects assign milk and sugar to different ‘people’ if possible?
- How do they react if it’s not possible?

**Hypothesis**

- Inclusive interpretation is (more) acceptable if there are fewer cups than items mentioned.
3.4. Topic/Focus: Sum Reading

3.4.1. Scenario

I suffer from the Really Dangerous Spot Disease. This means that spots appear on my skin and stay forever. Spots that appear on Monday are yellow, Tuesday’s spots are red and spots appearing on Wednesday are blue.
3.4.2. Data

(23) On Monday, one spot appeared, on Tuesday two spots appeared, on Wednesday four spots appeared. Thus, I’ve got seven spots now.

(24) On Monday, one spot had appeared, on Tuesday three spots had appeared, on Wednesday seven spots had appeared. — or even ?

(25) On Monday, I had one spot, on Tuesday I had three, on Wednesday I had seven. Thus, I’ve got seven spots now.

(26) On Monday, I had one new spot, on Tuesday I had two new spots, on Wednesday I had four new spots.

(27) By Monday, one spot had appeared, by Tuesday three spots had appeared, by Wednesday seven spots had appeared.
3.4.3. Possible Variables

Do we consider the whole period of time or only moments?

• the kind of verb used (state/action)
• tense
• adverbial phrase indicating time
• NP: is incompatibility indicated?
Conclusion

- Focus constructions are interesting.
- Empirical testing of hypotheses concerning focus constructions is desirable.
- It is not trivial.
- We’ll still try.
- Feedback is appreciated!
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References


