

# On the elicitation of focus – Prosodic differences as a function of sentence mode of the context?

---

Frank Kügler & Susanne Genzel

Department of Linguistics &  
Research Center 632 “Information Structure”  
Potsdam University



**Sonderforschungsbereich 632**

**Informationsstruktur:**

**Die sprachlichen Mittel der Gliederung von Äußerung, Satz und Text**

# Context and discourse moves

---

- |     |    |                      |                                |   |
|-----|----|----------------------|--------------------------------|---|
| (1) | a. | Sam's home.          | {Sam is home}                  | ↔ |
|     | b. | Yes/Yeah, he's home. | ✓                              |   |
|     | c. | No, he isn't home.   |                                |   |
| (2) | a. | Is Sam home?         | {Sam is home; Sam is not home} |   |
|     | b. | Yes/Yeah, he's home. | ✓                              |   |
|     | c. | No, he isn't home.   | ✓                              |   |

(Farkas & Bruce 2010)

- Identical conversational moves in (1) and (2)
- “Conversational crisis” in (1c) – denial/rejection of presupposition

# Overview

---

## Question:

- Is a conversational crisis marked prosodically and/or syntactically?  
**Hence, does the sentence mode of the context influence the prosodic and/or syntactic expression of focus?**

## Two picture naming tasks – I syntax, II prosody:

- Eliciting of focus structures via context-questions and context-statements
- Mandarin Chinese
  - Focus is prosodically (Xu 1999) and syntactically (Li 2008) marked
  - Counter-presuppositional focus seems to be marked prosodically and syntactically (Greif 2012)

## Results:

- Effect of focus on prosody is borne out.
- No effect of context on prosody is found.
- No increase of usages of cleft-structures under focus.

# Focus in Mandarin Chinese

---

**Prosody** – four tone language (1–high, 2–rising, 3–low, 4–falling tone)

- Focus expands pitch register (Xu 1999) and increases duration (Chen 2006)
- Counter-presuppositional focus: raised pitch span, longer duration (Greif 2012)

(3) Narrow corrective focus / question-context

-  a. Does Xiaxia have mangos? {Xiaxia has mangos, Xiaxia has no mangos}
- b. Mulei has mangos. Confirmation of 2<sup>nd</sup> presupposition, correction.

(4) Counter-presuppositional focus / statement-context

-  a. Xiaxia has mangos. {Xiaxia has mangos}
- b. Mulei has mangos Correction of presupposition.

**Syntax** – SVO

- Focus in situ (see e.g. data in Xu 1999)
- Cleft structures in corrective and counter-presuppositional focus (Li 2008, Greif 2012)

(5) It is Luwei who has litchis  
shi4 lu4wei1 you3 li4zhi1



# Research question and Hypothesis

---

## **Question:**

Is a conversational crisis marked prosodically and/or syntactically?

**Hence, does the sentence mode of the context influence the prosodic and/or syntactic expression of focus?**

## **Hypothesis:**

Effect of focus and effect of context are marked prosodically and/or syntactically in Mandarin Chinese.

## **Expectations:**

- FOCUS – broad vs. narrow corrective focus
  - Expanded pitch register (Xu 1999)
  - Use of more cleft structures (Li 2008, Greif 2012)
- CONTEXT – question vs. statement
  - More emphasis in terms of raised pitch span (Greif 2012)
  - Use of more cleft structures (Greif 2012)

# Experiment and Factors

---

Two picture naming tasks (QUIS: “focus cards”, Skopeteas et al. 2006:137f).

Experiment I – syntactic preferences ~ uncontrolled

Experiment II – prosodic realization ~ priming

1. Tone on subject – (Lou4.ya3, Wei4.na4, Lu4.wei1, Mu4.lei2)
2. Focus type – (broad, corrective)
3. Elicitation method –  
(question ~ corrective, assertion ~ counter-presuppositional)

SVO target structures:

- i. Lou4ya3 you3 yang2 mei2.  
'Louya has waxberries.,
- ii. Lu4wei1 you3 li4zhi1.  
'Luwei has litchis.,
- iii. Mu4lei2 you3 mang2guo3.  
'Mulei has mangos.,
- iv. Wei4na4 you3 ying1tao2.  
'Weina has cherries.'

# Material

## Target words (subjects)



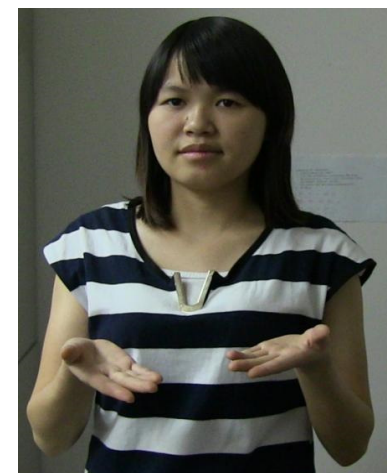
洛雅 luo4ya3



魏娜 wei4na4



陆薇 lu4wei1



穆蕾 mu4lei2

## Objects



杨梅 bayberry



荔枝 litchi



芒果 mango



樱桃 cherry

# Experimental task – broad focus

---

## 简单描述下面的图片

Give a brief description of the picture below.



魏娜 (Weina)



# Experimental task – corrective focus

---



Sound: Chenxia has bananas.



Sound: Is it Chenxia who has bananas?



苗苗 Miaomiao



陈霞 Chenxia



夏夏 Xiaxia

# Experimental task

---

## Experiment I – syntactic preference

Instructions:

1. Your task is to describe the picture as in the examples
2. Some slides contain a question. Respond to the sound you have heard according to the pictures.

No Priming!

## Experiment II – prosodic realization

Instructions:

1. Your task is to describe the picture as in the examples. Look at the examples carefully.
2. Some slides contain a question. Your task is to answer the questions as in the examples. Respond to the sound you have heard according to the pictures.

Priming – only by visual presentation of a sentence, no sound:

回答：夏夏有桃子。  
(Xiaxia has peaches.)



夏夏 (XiaXia)

# Speakers & Analyses

---

12 speakers per experiment:

- Experiment I: 10 female & 2 male students; average age 20  
288 sentences (12 speakers x 2 repetitions x 4 items x 3 conditions)
- Experiment II: 9 female & 3 male students; average age 22  
384 sentences (12 speakers x 2 repetitions x 4 items x 2 focus types x 2 elicitation method)

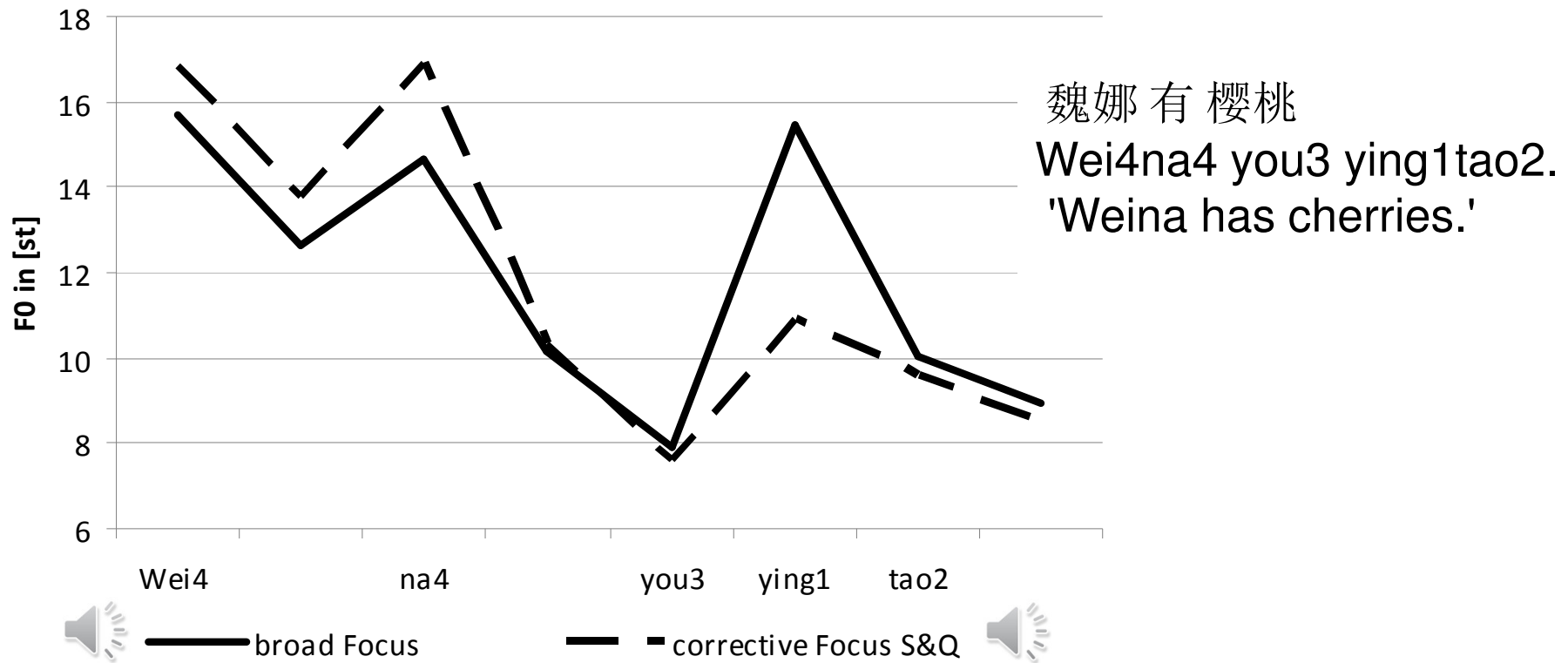
Experiment I:

- Identification of the syntactic structure by a native MC speaker

Experiment II:

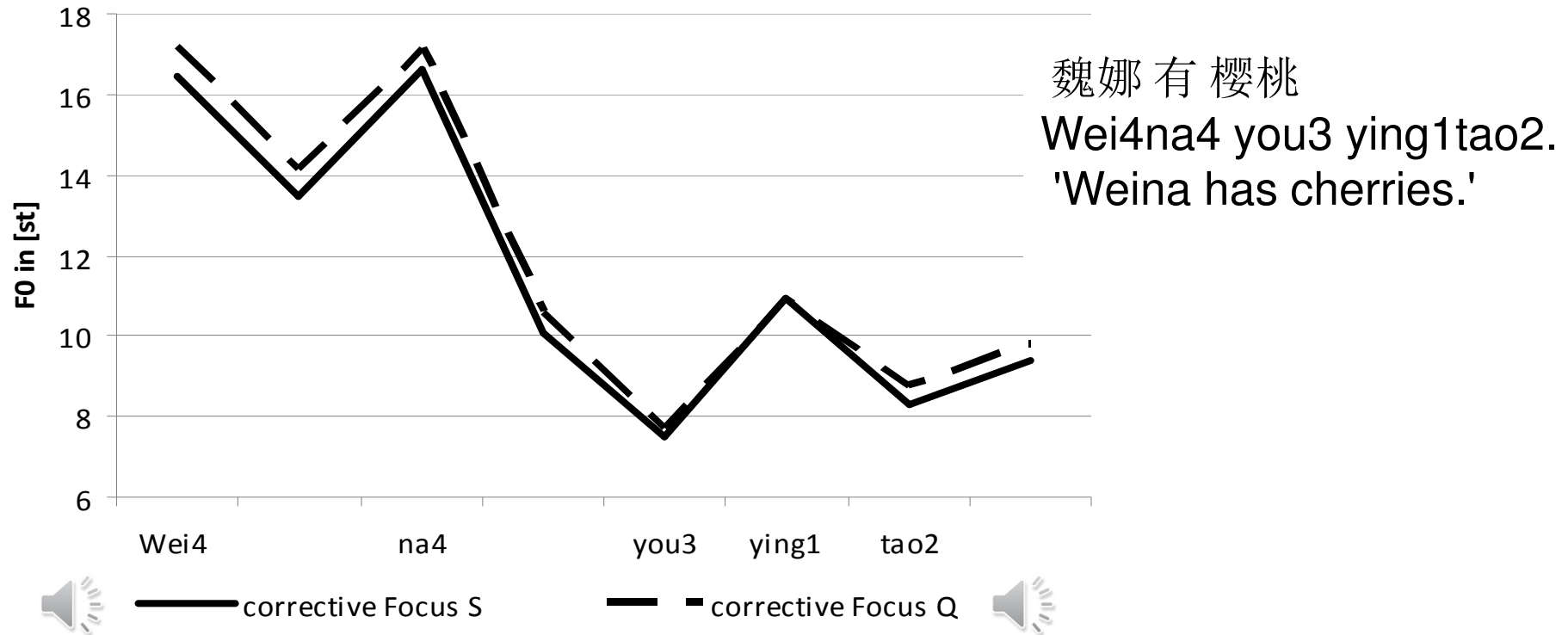
- Min/Max **F0** in st (ref. 100)
- **F0 range** (H-L) of each syllable of each constituent for tones 2 and 4
- **Duration** in ms of each syllable of each constituent

# The effect of focus on prosody



- First syllable –  
pitch register raising by about 0.4 st (\*\*) for H tone and 0.3 st (\*) for L tone
- Second syllable –  
pitch register raising for H tone,  
pitch span expansion for rising, falling and low tone.
- No effect on duration

# The effect of context on prosody



- First syllable –  
no significant effect for H tone (*ns.*),  
marginal significant raising of L tone (\*) by 0.1 st for question contexts
- Second syllable –  
some marginal significant raisings (H of tone 2, and tone 4)
- No effect on duration

# The effect of focus & context on syntax

---

## Effect of focus

- Broad focus – 100% *in situ* subjects
- Corrective focus – 84% *in situ* subjects

## Effect of context

- Statement – 92% *in situ* subjects  
(8 instances of shi4-clefts, realized by one speaker)
- Questions – 76% *in situ* subjects  
(23 instances of shi4-clefts, realized by three speakers including the one using clefts in statement contexts)

➤ More frequent usage of cleft with Q context possibly due to syntactic priming.

# Summary

---

- Focus – increase of emphasis from broad to corrective focus
    - pitch register raising/expansion (cf. Xu 1999) **CONFIRMED**
    - more cleft structures (Li 2008, Greif 2012) **NOT CONFIRMED**
  - Context – increase of emphasis from question to statement
    - pitch register raising (Greif 2012) **NOT CONFIRMED**
    - more cleft structures (Greif 2012) **NOT CONFIRMED**
- No syntactic preferences of cleft structures in case of focus.
- Some marginal significant pitch register raising in question contexts:
    - Raisings were expected in case of statement contexts, cf. (1c).

- (1) a. Sam's home.  
b. Yes/Yeah, he's home.  
↪ c. No, he isn't home.

## CONCLUSION

**Context statements and context questions do not result in different prosodic realizations of the answers, at least in Mandarin Chinese.**



## Acknowledgements:



Thanks to Bei Wang and Wu Quian.

Funded by DFG: SFB 632 “Information structure”, Project D5  
[http://www.sfb632.uni-potsdam.de/projects\\_d5eng.html](http://www.sfb632.uni-potsdam.de/projects_d5eng.html)

## References

- Chen, Y. (2006). Durational adjustment under corrective focus in Standard Chinese. *J Phonetics*, 34(2), 176–201.
- Farkas, D. F., & Bruce, K. B. (2010). On Reacting to Assertions and Polar Questions. *J Semantics*, 27(1), 81–118.
- Greif, M. (2012). *Corrective focus in Mandarin Chinese: A question of belief?* München: Lincom.
- Li, K. (2008). Contrastive focus structure in Mandarin Chinese. In M. K. M. Chan & H. Kang (Eds.), *Proc. 20th North American Conference on Chinese Linguistics* (pp. 759–774). Columbus, Ohio: The Ohio State University.
- Skopeteas, S., Fiedler, I., Hellmuth, S., Schwarz, A., Stoel, R., Fanselow, G., Féry, C., & Krifka, M. (2006). *Questionnaire on Information Structure (QUIS)*. Interdisciplinary Studies on Information Structure, No. 4, Potsdam University.
- Xu, Y. (1999). Effects of tone and focus on the formation and alignment of f0 contours. *J Phonetics*, 27(1), 55–105.