

# Nonmanual Aspects of Focus Particles in Sign Languages

It is not *only* the hands that count, nonmanuals are *even* important, *too*.

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# Outline

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# Introduction

## Focus particles and focus

- Lexical items such as *only, just, solely, also, too, even*
- Non-inflecting, flexible syntactic distribution
- Associate with the highlighted part of the sentence (focus)
- Syntactic and semantic scope over a specific focus constituent
- Denote a relation to a set of alternatives
- Focus as an information structural notion generally reflects new information (focus - background distinction)

Krifka (2007), Büring (2007), Féry & Krifka (2008), Lambrecht (1994) et al.

# Introduction

## Nonmanual markers in sign languages

- High simultaneity (manual and nonmanual means)
- Grammatical and affective nonmanuals
- Functions of nonmanuals:  
sentence types, topicalization, relative clauses, conditional clauses, adverbials, ...

# Introduction

## Focus particles in sign languages

- No systematic research on focus particles in sign languages
- ASL: ONLY, ONLY-ONE (restrictive); SAME (additive)
- DGS: NUR (restrictive); DAZU (additive)
- Cross-linguistic study: **DGS**, NGT and ISL
- Focus Particles investigated:
 

restrictive	<i>only</i>
additive	<i>also</i>
scalar	<i>even</i>

(Wilbur 1994, Wilbur & Patschke 1999, Happ & Vorköper 2006)

# Introduction

## Assumption

- Universally, all languages have equivalents for focus particles
- Assumption for SL: manual equivalents for focus particles
- Modality-independent and modality-specific aspects of the realization of focus particles?

# Data elicitation

- Pilot study for DGS, NGT, and ISL
- 14 native and near native signers
- 2 hour video session each
- 2 camcorders (upper body and face)

## Development of elicitation battery

- Translation task (sentences)
- Picture question-answer task (interaction)
- Picture story task (narration including dialogues)
- Translation/Narration task (dialogues)

# Data elicitation

## Translation task (sentences)

1. FP **Tim** eats a banana. (S)
2. Tim FP **bought** the book. (V)
3. Tim FP **watered the flowers.** (VP)
4. Tim FP watered the **flowers.** (O)



# Data elicitation

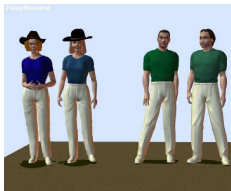


Figure: Pictures of question-answer task

Are all of the people wearing hats?

Are only the men wearing white trousers?

(Pictures taken from the QUIS-Questionnaire, Potsdam, cf. Skopeteas *et al.* 2006)

# Data elicitation

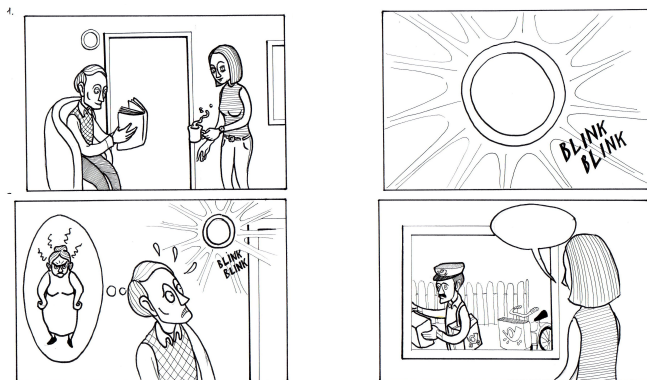


Figure: Picture story 1: Eliciting degrees of *only* (scalar)

# Data elicitation

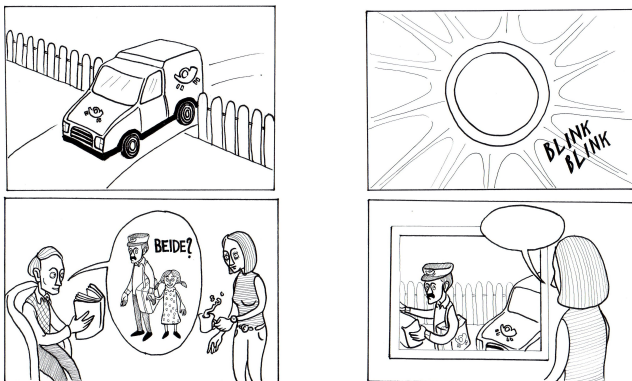


Figure: Picture story 2: Eliciting degrees of *only* (quantitative)

# Data elicitation

## Translation task (dialogues)

A: The prime minister is allowed to decide.

B: No, only the Queen is allowed to decide.

A: The Queen can decide, but also the PM is allowed to decide.

B: Are you sure?

A: Yes, even the prince is allowed to decide.

# Data

## Data Annotation

- ELAN annotation tool (MPI Nijmegen)
- Synchronization of videos
- 14 different tiers
- Systematic transcription conventions
- 8 separate nonmanual levels

## Data

## ELAN Screenshot

The screenshot displays the ELAN software interface with a video of a woman speaking and a detailed linguistic analysis timeline. The timeline includes various layers of data:

- Transition Eng:** In Mann sitzt im Wohnzimmer und liest ein Buch. Die Frau kommt und bringt ihm Kaffee. Er ist faul und entspannt, lehrt sich zurück und liest. Plötzlich blinkt die Türklingel. Der Mann erschreckt an denkt es ist d
- Transition Germ:** In Mann sitzt im Wohnzimmer und liest ein Buch. Die Frau kommt und bringt ihm Kaffee. Er ist faul und entspannt, lehrt sich zurück und liest. Plötzlich blinkt die Türklingel. Der Mann erschreckt an denkt es ist d
- Gloss Eng (M1):** LIVINGROOM MANN SITZ BUCH READ WOM COME-CL COFFIE FOR BRING-IX BE-LAZY READ
- Gloss Ger (M2):** WOHNRUMMER MANN SITZ BUCH LES FR KOMM-CL KAFFEE FÜR BRING-IX ZU-BEQUEM-SEIN LES PLOTZ BLINK (pres. 1.0) MANN ERSCHT
- Gloss Lit (M3):** ZIMMER MANN SITZ BUCH LES FR KAFFEE LES PLOTZ
- Brows (M4):** [Timeline with vertical markers]
- Eye Aperture (M5):** [Timeline with vertical markers]
- Eye Gaze (M6):** [Timeline with vertical markers]
- Mouth (M7):** [Timeline with vertical markers]
- Chin (M8):** [Timeline with vertical markers]
- Head (M9):** [Timeline with vertical markers]
- Body (M10):** [Timeline with vertical markers]
- Facial expr (M11):** [Timeline with vertical markers]
- Comments/Notes (M12):** [Timeline with vertical markers]

The interface also shows a video player at the top with two views of the woman speaking, a control bar, and a window on the right displaying a gloss table.

# Data

Files elicited with focus particle tasks:

SL	Transl. S.	Picture	Picture Story	Transl. D.	All
<b>DGS</b>	169	47	46	49	<b>311</b>
NGT	34	19	16	21	90
ISL	37	16	21	21	95
<b>Sum</b>	251	82	83	91	<b>496</b>

# Results: focus particles in DGS

Focus in DGS: raised brows, head tilts, nods, tense and large articulation



**Figure:** Focus marking of object focus in DGS

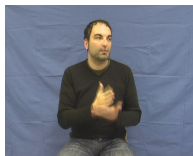
(also see Waleschkowski 2009)



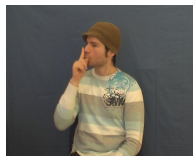
# Results: focus particles in DGS

Manual signs for *only* and *also* in DGS

NUR<sub>1</sub>  
only



NUR<sub>2</sub>  
only



AUCH  
also



DAZU  
add/also

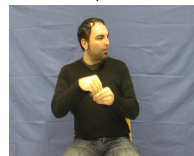


Figure: Restrictive and additive focus particles in DGS

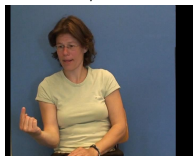
# Results: focus particles in NGT

Manual signs for *only* and *also* in NGT

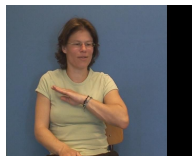
ALLEEN  
only



EEN  
one/only



OOK<sub>1</sub>  
also



OOK<sub>2</sub>  
also

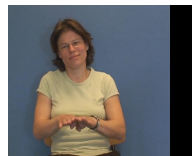


Figure: Restrictive and additive focus particles in NGT

# Results: focus particles in ISL

Manual signs for *only* and *also* in ISL

ONLY



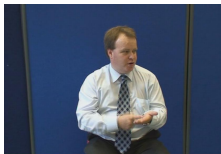
ONE



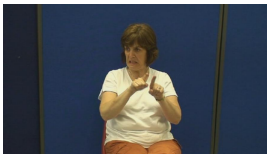
JUST



ALSO



SAME



AS-WELL



Figure: Restrictive and additive focus particles in ISL

# Results: focus particles - distribution

- (1) ONLY<sub>2</sub>/ALSO [TIM]<sub>F</sub> FLOWER WATER (S) [DGS]
- (2) TIM FLOWER ONLY<sub>2</sub>/ALSO [WATER]<sub>F</sub> (V)
- (3) TIM ONLY<sub>2</sub>/ALSO [FLOWER WATER]<sub>F</sub> (VP)
- (4) TIM ONLY<sub>2</sub>/ALSO [FLOWER]<sub>F</sub> WATER (O)

# Results: focus particles

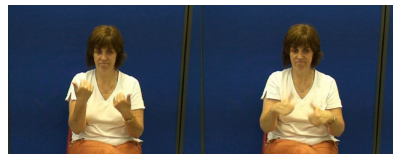
## Sentence final focus particles

DGS



FERTIG / NUR<sub>1</sub>

ISL



COMPLETION / AT-LAST / ONLY

**Figure:** Sentence final perfect tense marker and accomplishment marker

# Results: focus particles - *even*

## *Even*

- No manual sign for *even* in any of the sign languages
- Combination of manual additive particle with specific nonmanuals
- Raised eye brows, wide eyes, forward or upward head-tilt
- Sign language specific signs used to express *even*: PF-sign in DGS, AH-sign in ISL

# Results: focus particles - *even*

(5) 'Tim even **read** the book.' (V)

			<u>hn,r</u>		<u>tense</u>	
					even	
TIM	IX <sub>3</sub>	BOOK	ALSO	PF	[READ] <sub>F</sub>	g-pu

- Manual additive particle for additive meaning
- Nonmanuals for scalar level of meaning
- Expressed simultaneously through different articulatory channels

# Results: focus particles - *even*

## Video



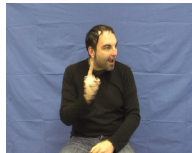
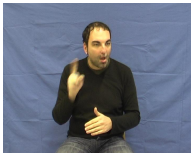
"Tim even read the book."



# Results: focus particles - *even*

Nonmanuals for scalar level of meaning

[DGS]



ALSO

ALSO + nonmanuals

# Results: postfocus occurrences

(6) 'Tim eats a banana, too.' [DGS]

a.  $\frac{ht-f}{TIM}$   $\frac{ht-f,hn}{ALSO}$  BANANA EAT

b.  $\frac{r,sq}{TIM IX_3}$   $\frac{ht-f,hn,r}{ALSO_2}$  BANANA EAT IX<sub>3</sub>

- Possible with additive focus particles such as AUCH and OOK
- Specific prosodic marking, focus particle receives focus marking itself

# Syntactic analysis of focus particles

## Adverbial account for 'regular forms'

- DGS: NUR<sub>2</sub>, AUCH, DAZU
- ISL: ONLY, JUST, SAME, ALSO
- NGT: ALLEEN, OOK<sub>1</sub>, OOK<sub>2</sub>
  
- Adjacent to and preceding the focus constituent
- Can be combined [AUCH DAZU], [JUST ONE]
- XP status
- Adverbial positions above VP and IP

# Syntactic analysis of focus particles

## Sentence final $NUR_1$ and COMPLETION

- Grammaticalization from temporal aspect markers
- Sentence final *wh*-elements, modal verbs, copied pronouns are blocked in DGS

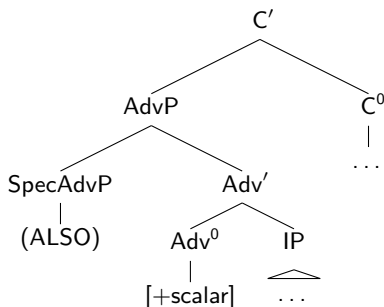
(7) \* $IX_1$  SIGN LANGUAGE STUDY MUST ONLY $_1$

(8) \* $WHO$  TOPIC MODALITY STUDY  $WHO$  ONLY $_1$

- $X^\circ$  status
- Occupying right  $C^\circ$

# Analysis of nonmanuals for scalarity

(9)



- The nonmanuals are not lexically associated with *also*
- Spread across the particle and rest of sentence (c-command)

Different levels of meaning are represented in different syntactic positions which are instantiated by different articulatory channels.

# Analysis: postfocus occurrences

(10) 'Tim eats a banana, too.' [DGS]

$\frac{r,sq}{T\ I\ M\ I\ X_3}$	$\frac{ht-f,hn,r}{A\ L\ S\ O_2}$	B\ A\ N\ A\ N\ A	E\ A\ T	I\ X_3
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- Analysis as contrastive topic (cf. Krifka 1999 and Féry 2011)
- Specific nonmanual marking
- Focus particle receives focus marking itself
- Special contour is similar to hat contours in spoken languages
- The main function would be to restore scope of the focus particle (inverse scope reading)

# Conclusion

## Modality independent findings:

- Manual equivalents for restrictive and additive focus particles in DGS, NGT, ISL, and many other SL
- Distributional properties similar to focus particles in spoken languages
- Different analyses for adverbial focus particles, sentence final items, and postfocal items

## Modality specific findings:

- Nonmanuals for scalarity, two different articulatory channels  
*even* = ALSO + nonmanuals
- Nonmanuals may occur without manual item depending on the context (nonmanually dominant languages)
- Nonmanuals are the relevant cues to interpret scalar meaning and postfocal items

# Outlook

- Typological study on scalar particles (signed + spoken)
- Sign Language Lab in Göttingen:
  - Native signers from two different age groups
  - Grammaticalization and diachronic change
  - Elicitation of narratives and different text structures in DGS
  - Focus particles in natural signing
- Distribution of specific signs such as PF in DGS



# Thank you very much for your attention.



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