Prosodic Focus Marking in Ewe?

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SFB 632 Information Structure

Humboldt University Berlin

1. Introduction
    1.1 Structure of the Talk
    1.2 Motivation
    1.3 Focus Expressions in Ewe

2. Methods
    2.1 Materials
    2.2 Recording Procedure
    2.3 Acoustic Analysis

3. Data
    3.1 Duration
    3.2 F0

4. Conclusions

"Different languages employ different means for the formal expression of focus.

Thus focus may be signaled prosodically by stress as is the case in English.

Some languages express focus morphologically by means of special morphemes and particles. This is the situation in many African languages including Ewe and Akan."

(Ameka 1992: 3)

Questions:

Does Ewe also use prosodic means to express focus?

If yes, which kinds of prosodic means are used?

Hints for prosodic focus marking in the literature:

1. Möhlig (1971)

   Ewe uses „expressives prosodemes": one of them, for instance, serves to emphasize a word or phrase by a higher realization of all high tones in the respective phrase

2. Lefebvre/Brousseau (2002:154) (on Fon)

   If the focussed element "is linked to the direct object position of the verb[. T] there is a short pause after [the focus marker] wɛ̀..." But if the focussed element "is linked to the subject position of the verb. (…), there is no pause between wɛ̀ and the verb, ..."

Questions:

Does Ewe use prosodic means to express focus?

➢ maybe?!

If yes, which kinds of prosodic means are used?

➢ F0-modulation

➢ phrasing (pauses, lengthening etc.)

Based on the literature, it seems that the pragmatic category 'focus' is mostly expressed by morpho-syntactic means.

(e.g. Ameka, 1992)

Focus on the subject

$$[\text{S-é}]_{\text{Foc}} \ V \ O$$

Focus on the object

$$S \ V \ [O]_{\text{Foc}}$$

$$[\text{O-é}]_{\text{Foc}} \ S \ V$$

1 H nonH   #   H   #   nonH nonH

woman know   person
'A/the woman knows the/a person .'

H nonH   #

woman know   way.DEF

H   #   H H
'A/the woman knows the way.'

nonH H   #   H   #   H H   grandma   know

way.DEF
'A/the grandmother knows the way.'

4.

H nonH　　　#

nonH #　　H H

woman　eat　　thing.pl

'A/the woman has eaten things.'

5.

nonH nonH #　nonH #　　　　　　nonH　nonH　　　person eat　　life

'A/the person has enjoyed life.'

6.

nonH H　　#　　nonH #　nonH　nonH　grandma　eat　　　life

'A/the grandmother has enjoyed life.'

1. Focus on the subject (42 utterances)

Q: Who knows the person?

A: S   + FM   V   O

■⬜②🗩■◆⚷   ♏🗩   ■⬜♋🗩

♋⚷○♏⚷🗳

2. Focus on the object (ex-situ) (39 utterances)

Q: Whom does the woman know?

A: O   + FM   S   V

♋⚷○♏⚷   ♏🗩

■⬜②🗩■◆⚷   ■⬜♋🗩🗳

3. Focus on the object (in-situ) (36 utterances)

Q: Whom does the woman know?

A: S   V   O

Recordings were made:

- in a sound attenuated recording booth

- with one male educated speaker of A☠●❷

- at 44Khz in digital format

- reading lists (question-answer paradigms):
recorded (at least) five times, each time in a different
randomized order → at least five tokens per sentence type

  6 sentences x 3 conditions x at least 5 repetitions > 90

For these utterances

- the speech stream was annotated phonemically in Praat

- the duration of each phoneme was calculated via a script

- the F0 was calculated and time-normalized via a script
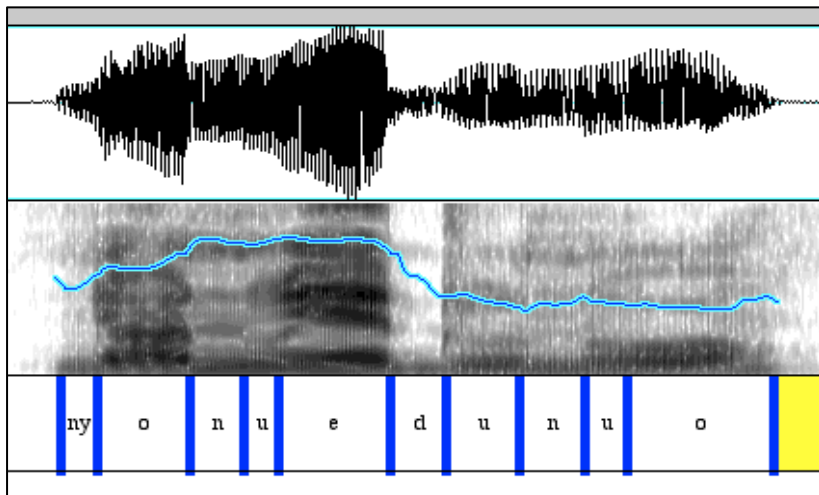
Sample of Praat Labeling file:

Sound pressure wave form

Spectrogram with overlaid fundamental frequency (F0) contour

segmentation window with transcription
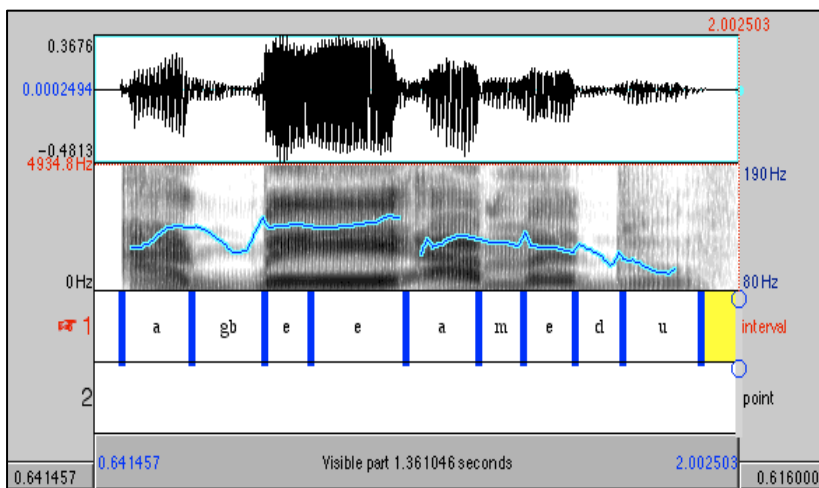
Duration – **object focus in-situ**

Duration – **Subject** Focus

Duration – **Subject** Focus

4.

5.

6.
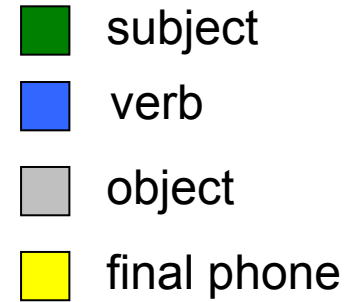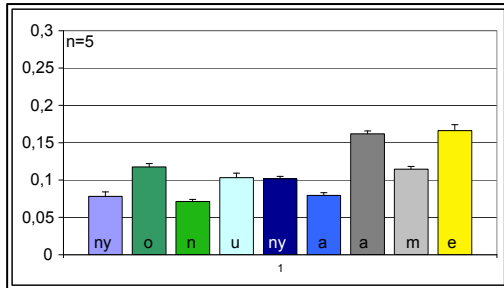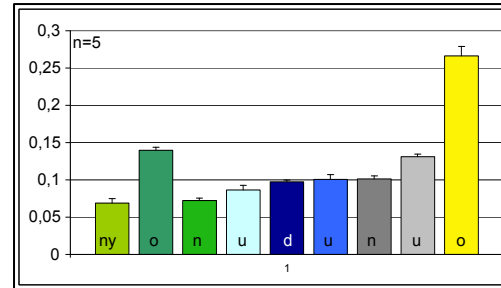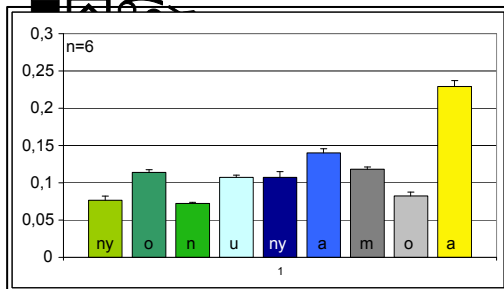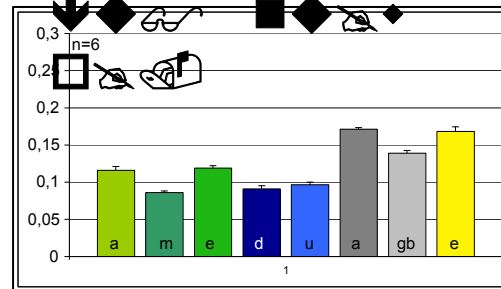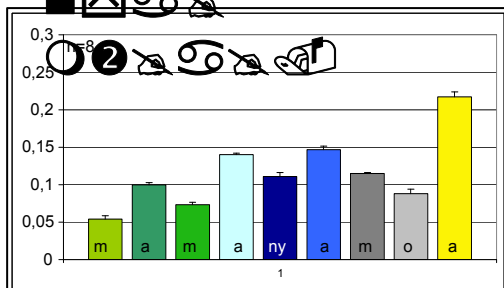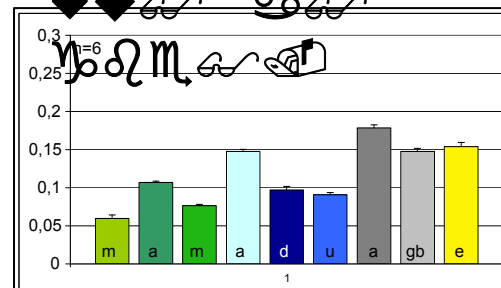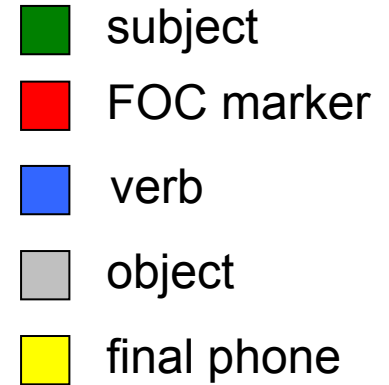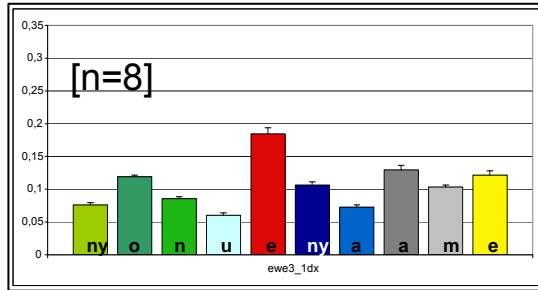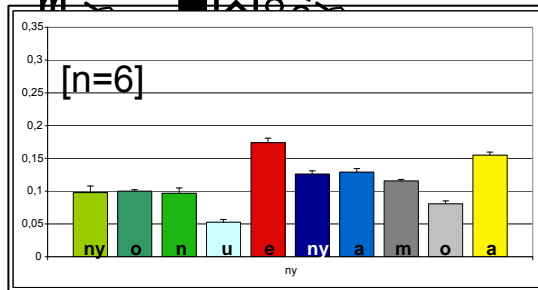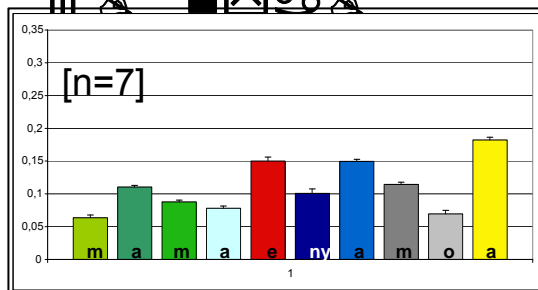
subject

FOC marker

verb

object
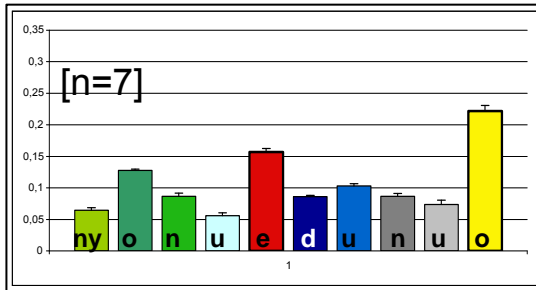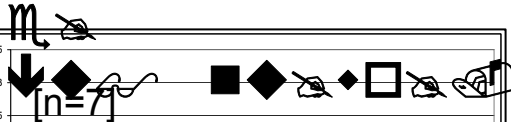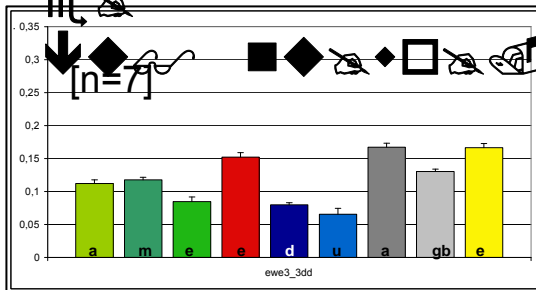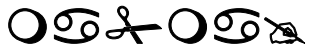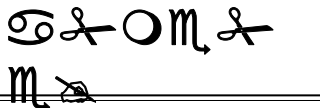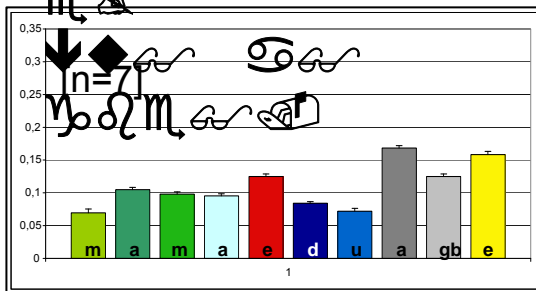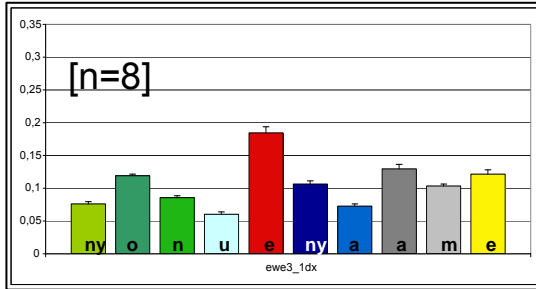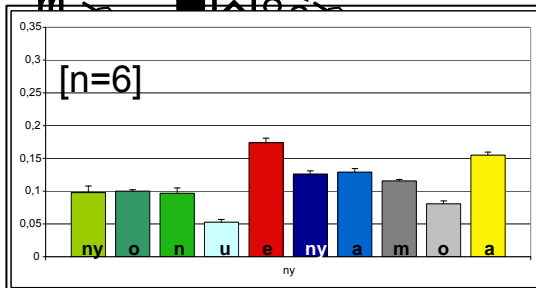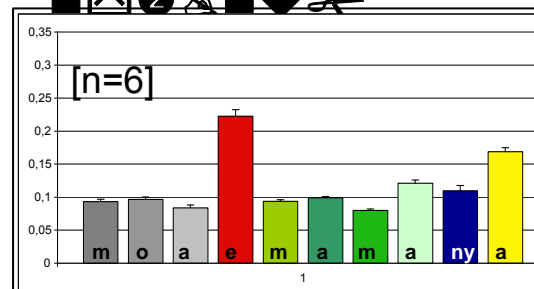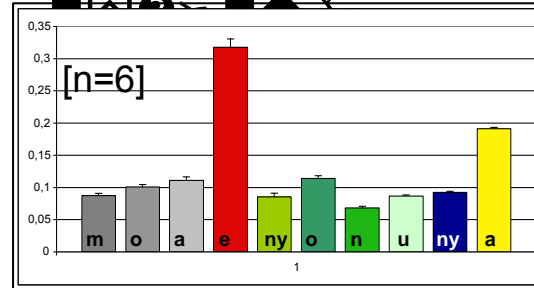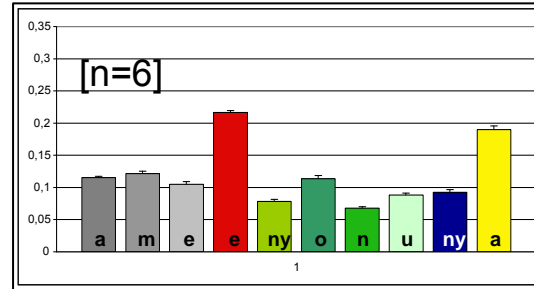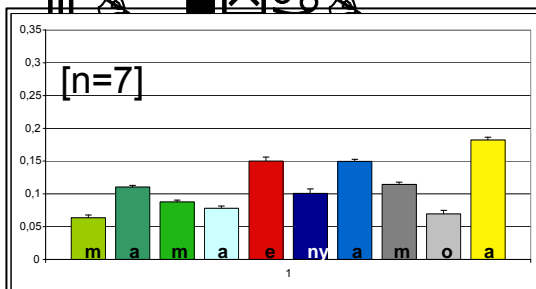
final phone

Duration – **Subject** vs. **Object** ex-situ Focus

Duration – **Subject** vs. **Object** ex-situ Focus
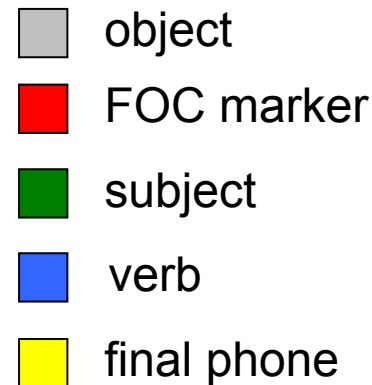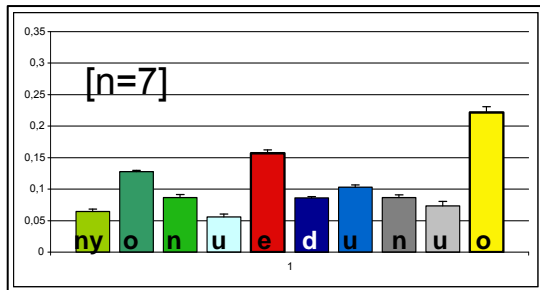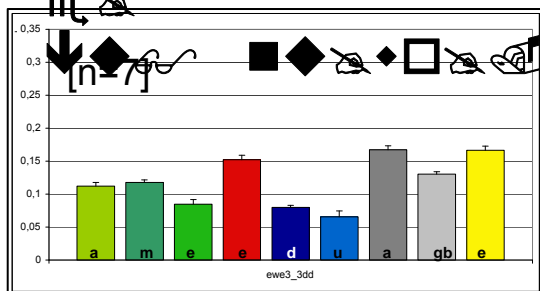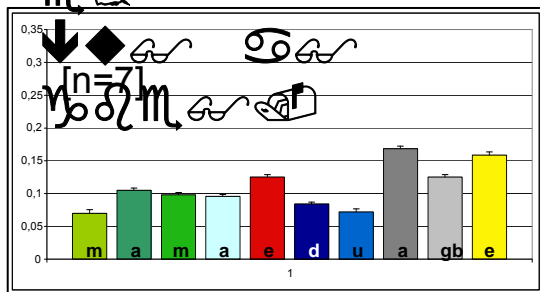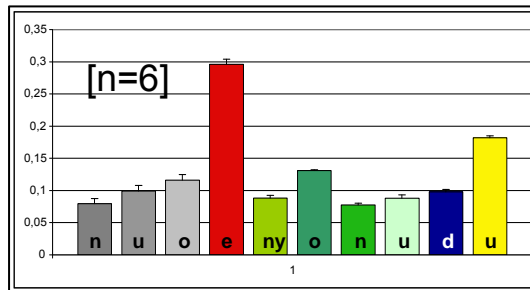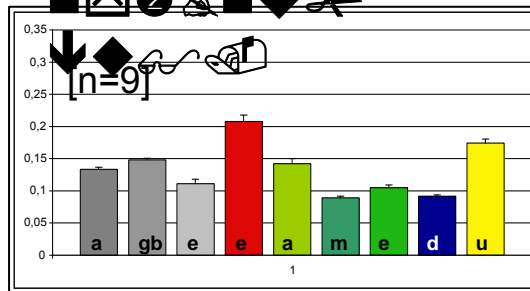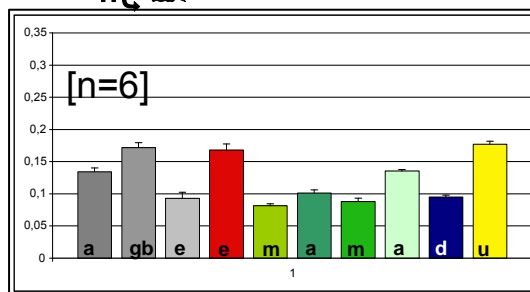
A *Linear Mixed Effects Model Anova* on the duration of the Focus Marker in S+FM versus O+FM shows a significant effect:

$$p. < .05, df=1, F=15.77$$

The focus marker in the ex-situ object **O**+FM is produced reliably longer by this speaker than in the S+FM condition.

S-Foc: lengthening as indicator for focus

O-Foc: lengthening as indicator for clausal boundary and focus (compounding effect)
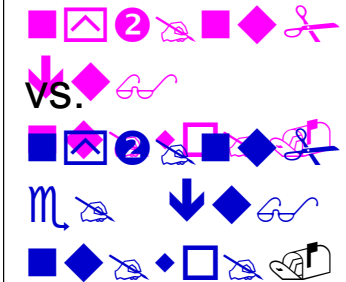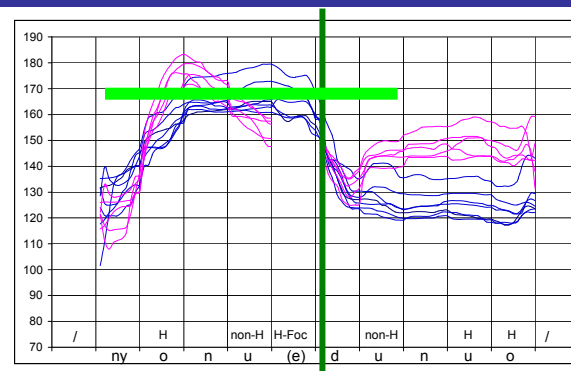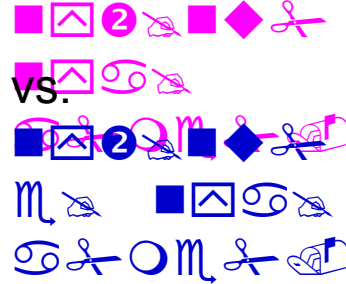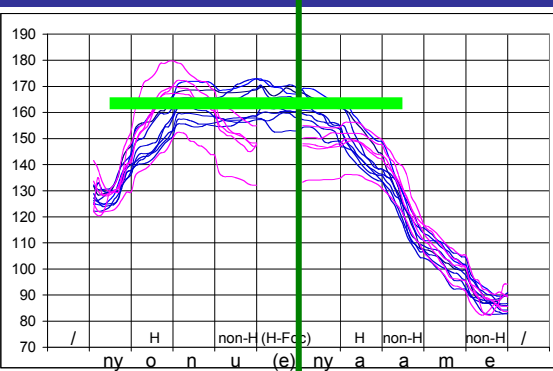
Subject Focus (with FM)

Object Focus (no Marking)
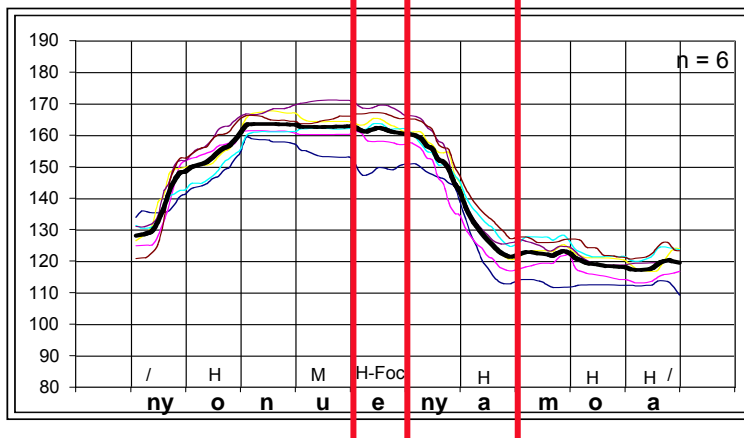
Time-normalized F0 contours

x-axes: phonemes
y-axes: F0

F0 – Comparison: **O-Foc in-situ** vs. **S-Foc**

Intro
Methods
Data
Conclusions

F0 – Comparison: **O-Foc in-situ vs. S-Foc**
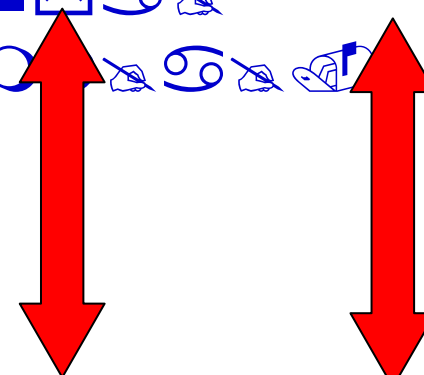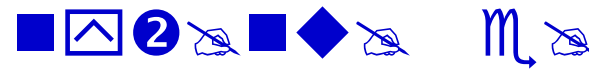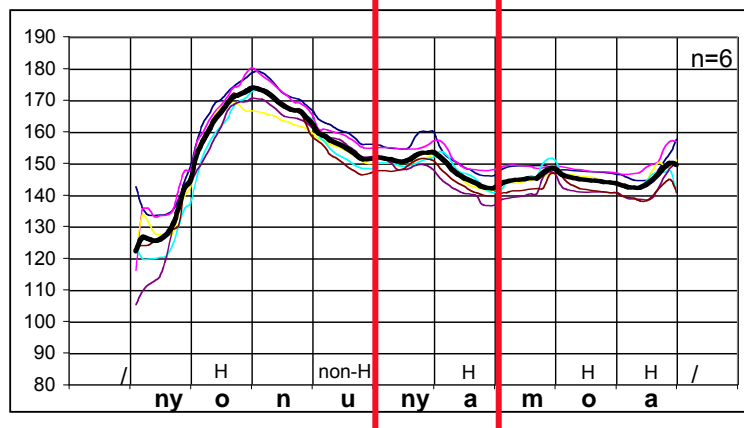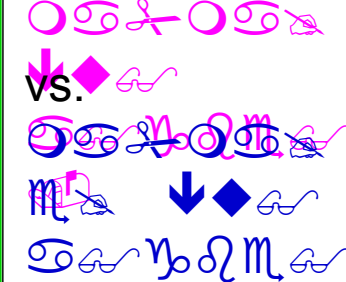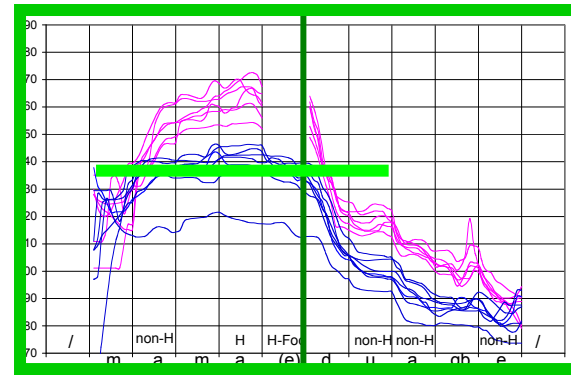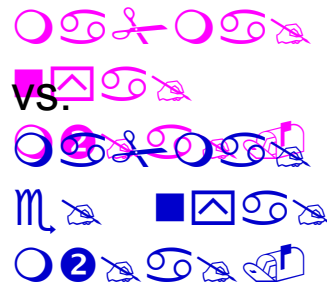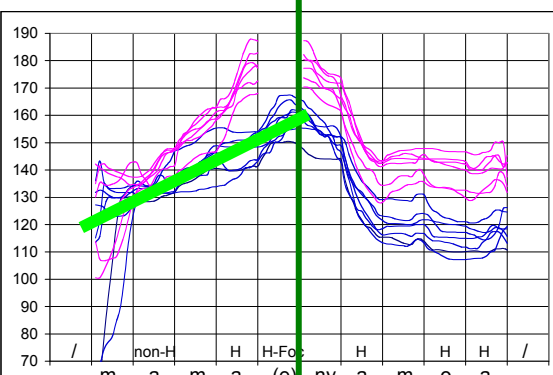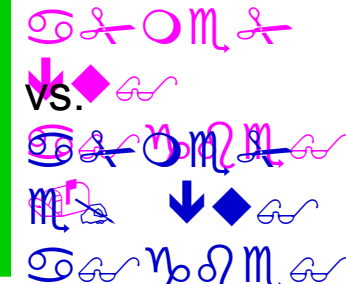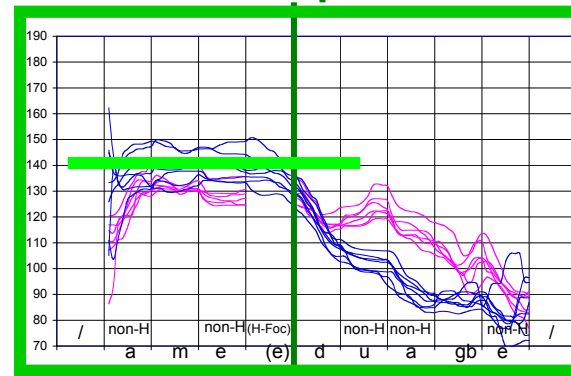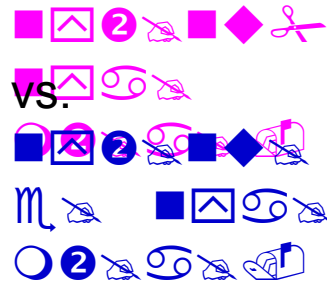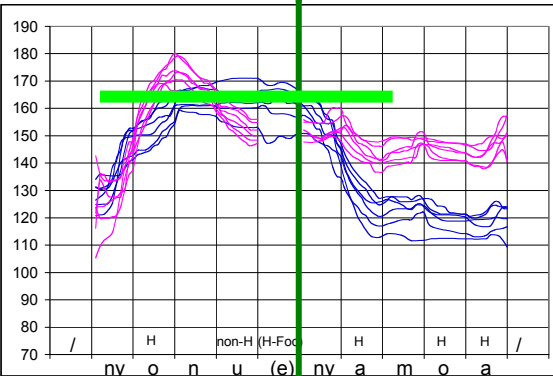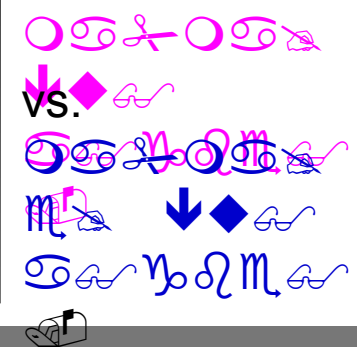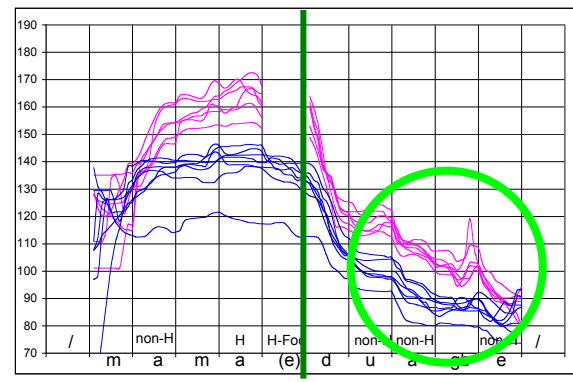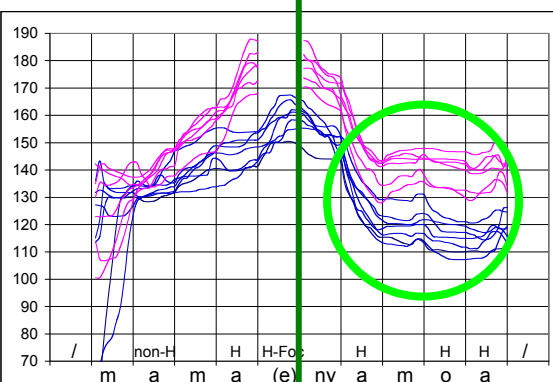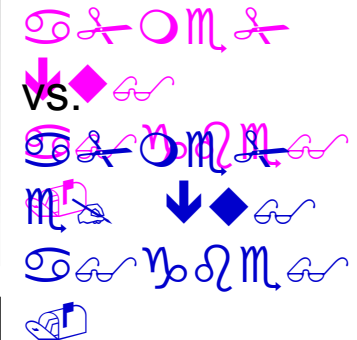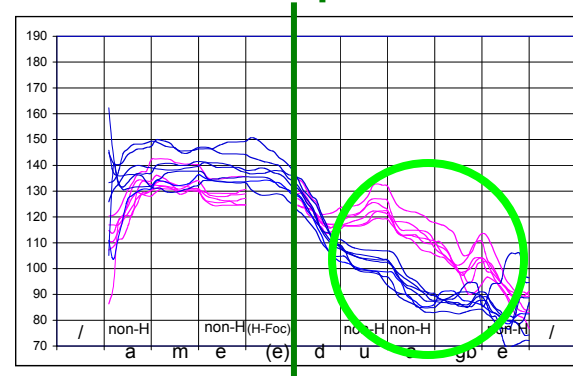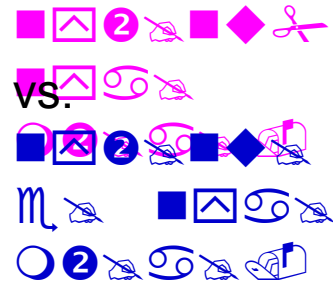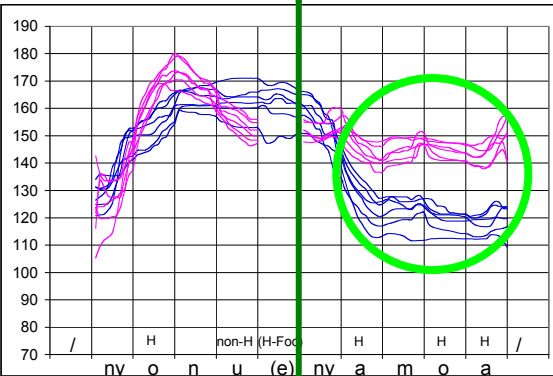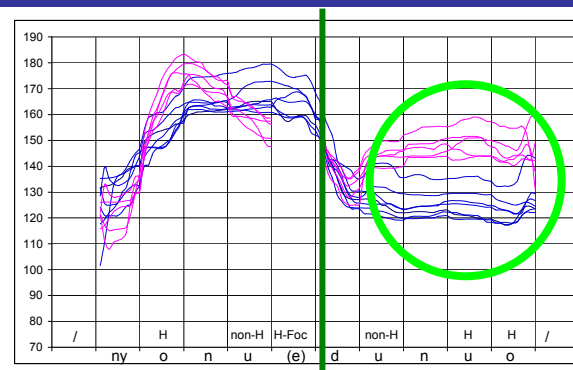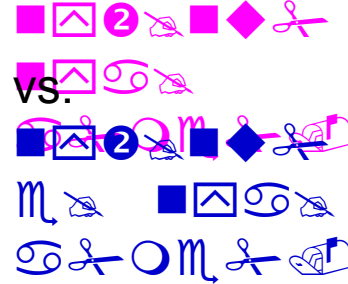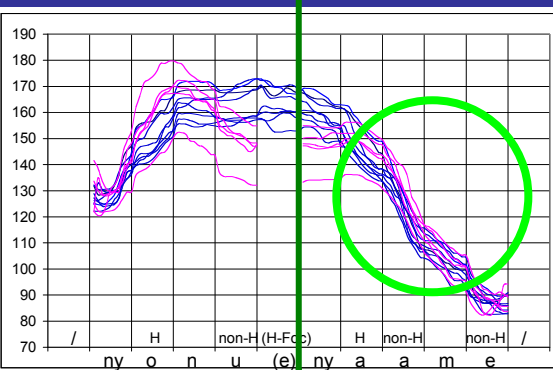
Overlay of neutral reading &
Object focus in-situ for six sentence types

F0 – Comparison: **O-Foc in-situ** vs. **S-Foc**
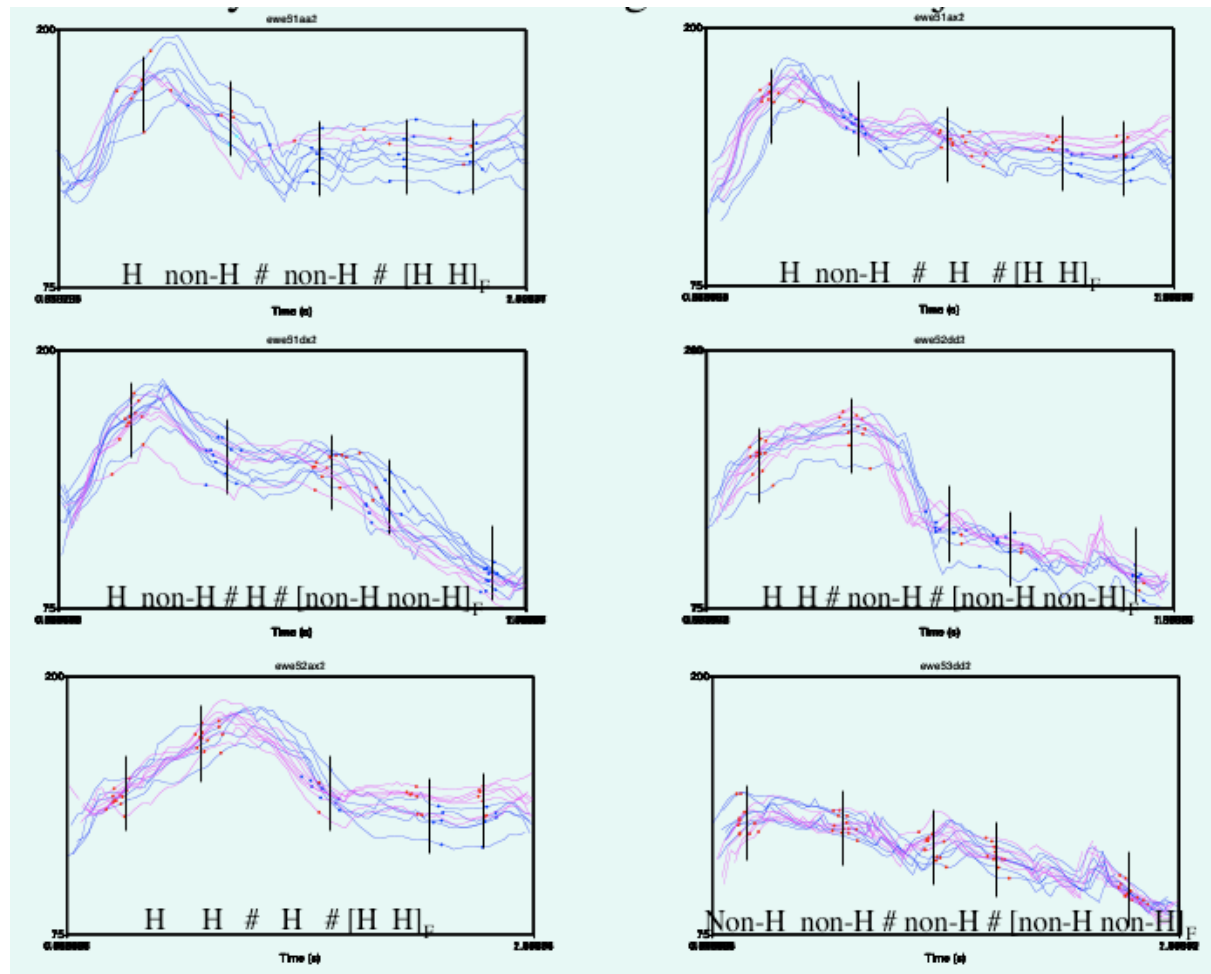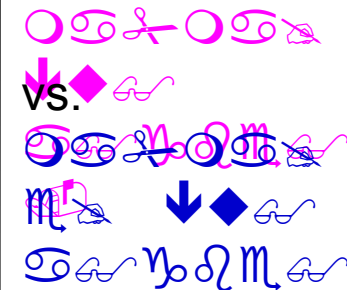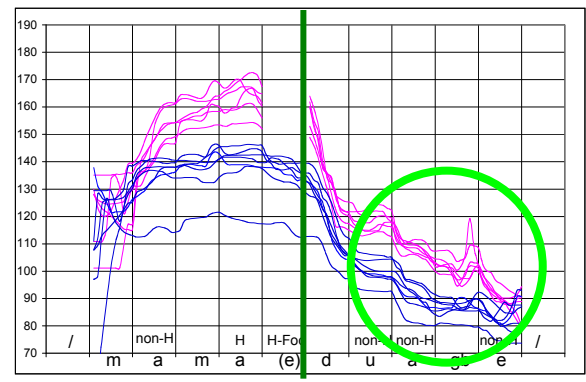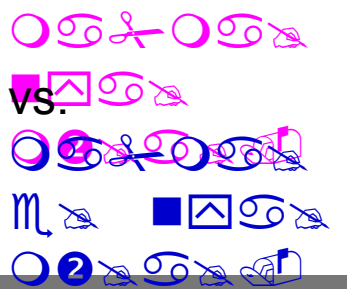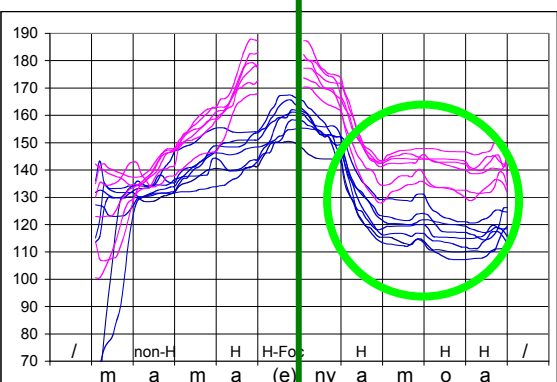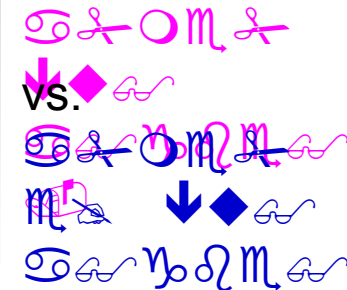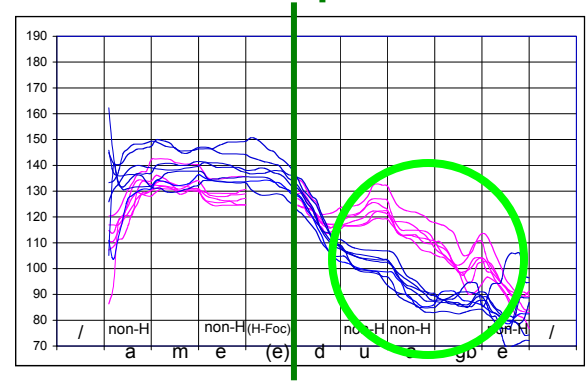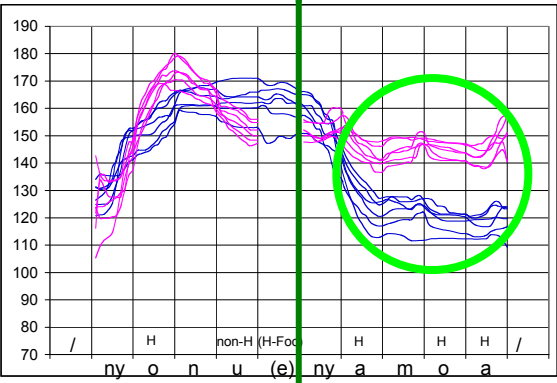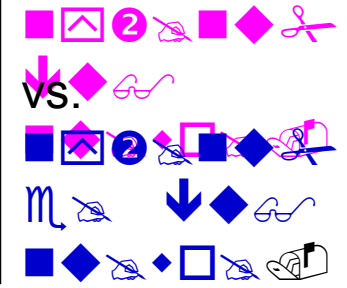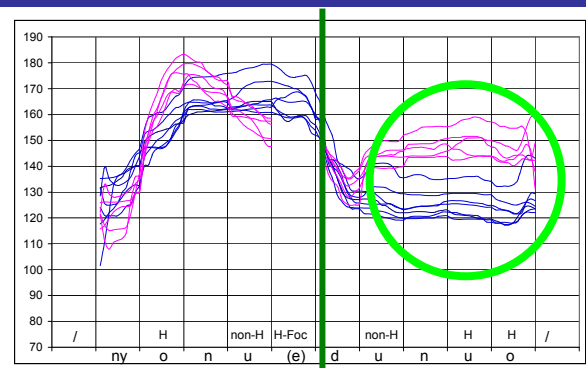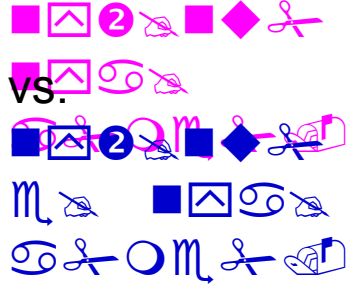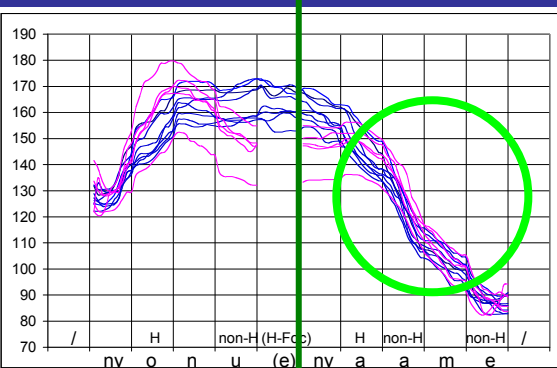
Does Ewe also use prosodic means to express focus?
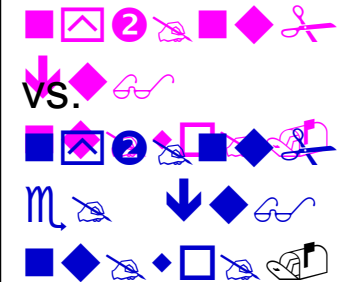
Yes!

There is evidence for **duration** (lengthening of FM) to play a (tertiary) role, supporting syntactic structure.

$$S_{Foc} \mid V\ O$$

$$O_{Foc} \mid S\ V$$

There is evidence for **F0** (compression of postfocal material) to play a (secondary or tertiary) role.

	$[S\text{-}é]_{Foc}$ V O	S V $[O]_{Foc}$	$[O\text{-}é]_{Foc}$ S V
Syntax	?	-	✓
Morphology	✓	-	✓
Phonology: duration F0	✓ ✓	- -	✓ ?

	$[S\text{-é}]_{Foc}$ V O	S V $[O]_{Foc}$	$[O\text{-é}]_{Foc}$ S V
Syntax	?	-	✓
Morphology	✓	-	✓
Phonology: duration F0	✓ ✓	- -	✓ ?

	$[\text{S-é}]_{\text{Foc}}$ V O	S V $[\text{O}]_{\text{Foc}}$	$[\text{O-é}]_{\text{Foc}}$ S V
Syntax	?	-	✓
Morphology	✓	-	✓
Phonology: duration F0	✓ ✓	- -	✓ ?

Thank you!

Dr. Stefanie Jannedy

Project D3 „Signal Parameters Connected to Prominence and Phrasing within Spoken Utterance in Different Languages"

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Project B1 "Focus in Gur and Kwa Languages"

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http://www2.hu-berlin.de/gur_und_kwa_fokus

http://www.sfb632.uni-potsdam.de/