# Vafsi oblique pronouns at the syntax-prosody interface 

Tina Bögel<br>in cooperation with<br>Saeed Yousefi and Mahinnaz Mirdehghan

Konstanz 2019

## This talk ....

## .... is about Vafsi and its oblique clitics

## This talk ....

.... is about Vafsi and its oblique clitics

## My general interest:

$\rightarrow$ Behaviour of clitics at the interfaces between modules
$\rightarrow$ Conclusions for the general grammar architecture

## This talk ....

.... is about Vafsi and its oblique clitics

## My general interest:

$\rightarrow$ Behaviour of clitics at the interfaces between modules
$\rightarrow$ Conclusions for the general grammar architecture

## Vafsi:

## This talk ....

.... is about Vafsi and its oblique clitics

## My general interest:

$\rightarrow$ Behaviour of clitics at the interfaces between modules
$\rightarrow$ Conclusions for the general grammar architecture

## Vafsi:

- Northwestern Iranian language, spoken by ca. 20.000 people (in two dialects)
- Unwritten, data comes from oral descriptions (Recording of Folk tales by L.P. Elwell-Sutton)
- Transcribed, translated, and supplemented with field study material by Donald L. Stilo, from whom most of the examples come from (Stilo 2004b,a, 2010)
- Saeed Yousefi is a native speaker, currently a PhD student of linguistics at the Shahid Beheshti University in Teheran


## Vafsi

- Information on Vafsi grammar is sparse
- Non-rigid verb-final language (postverbal positions determined by information structure mostly, recipients)
- Three realizations of pronouns:
(3) independent pronouns
(3) pronoun bases (with clitics attached to indicate person)
(3) clitics


## Independent pronouns and pronoun bases

- Two sets of independent pronouns
$\rightarrow$ direct and oblique


## Independent pronouns and pronoun bases

- Two sets of independent pronouns
$\rightarrow$ direct and oblique
- Two oblique pronoun bases: hazun and verewn
$\rightarrow$ no semantic content
$\rightarrow$ can occur postverbally
$\rightarrow$ person obligatorily indicated by oblique pronoun clitic
(2) xu dæsd-mozd æ-d-om hazún=i
good wage DUR-give- $1 \mathrm{SG}_{1}$ OBLPR $=2 \mathrm{SG}_{2}$ 'I'll give you a good wage.'


## Pronominal clitics and their 'affixal' variation

|  | direct (set 1) | oblique (set 2) |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | enclitics <br> (copulas) | affixes | enclitics/ <br> proclitics | affixes |
| 1SG | $=$ im(e) | -om(e) | =om | -im- |
| 2SG | $=\mathrm{i}$ | -i | =i | -i- |
| 3SG | $=\mathrm{e} /=$ oæ $^{1}$ | -e $/ \varnothing^{2}$ | =es | -is- |
| 1PL | $=$ am(e) | -am(e) | =owan | -iwan- |
| 2PL | $=\mathrm{a}$ | -a | =ian | -ian- |
| 3PL | $=$ end(e) | -end(e) | =esan | -isan- |

Table: Oblique and direct pronouns in Vafsi (Stilo 2010)

## Pronominal clitics and their 'affixal' variation

|  | direct (set 1) |  | oblique (set 2) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | enclitics (copulas) | affixes | enclitics/ proclitics | affixes |
| 1SG | $=\mathrm{im}(\mathrm{e})$ | -om(e) | =om | -im- |
| 2SG | $=\mathrm{i}$ | -i | $=\mathrm{i}$ | -i- |
| 3SG | $=\mathrm{e} /=\mathrm{or}^{1}$ | -e / $\varnothing^{2}$ | =es | -is- |
| 1PL | $=\mathrm{am}(\mathrm{e})$ | -am(e) | =owan | -iwan- |
| 2PL | $=\mathrm{a}$ | -a | = ian | -ian- |
| 3pL | =end(e) | -end(e) | =esan | -isan- |

Table: Oblique and direct pronouns in Vafsi (Stilo 2010)

- Stilo claims that oblique clitics occur as affixes under specific circumstances
${ }^{1}$ masc/fem
$2^{2}$-e after consonants


## Pronominal clitics and their 'affixal' variation

|  | direct (set 1) |  | oblique (set 2) |  |
| :---: | :---: | :---: | :---: | :---: |
|  | enclitics (copulas) | affixes | enclitics/ proclitics | affixes |
| 1SG | $=\mathrm{im}(\mathrm{e})$ | -om(e) | =om | -im- |
| 2SG | $=\mathrm{i}$ | -i | $=\mathrm{i}$ | -i- |
| 3SG | $=\mathrm{e} /=\mathrm{oæ}{ }^{1}$ | -e / $\varnothing^{2}$ | =es | -is- |
| 1PL | $=\mathrm{am}(\mathrm{e})$ | -am(e) | =owan | -iwan- |
| 2PL | $=\mathrm{a}$ | -a | = ian | -ian- |
| 3pL | $=\mathrm{end}(\mathrm{e})$ | -end(e) | =esan | -isan- |

Table: Oblique and direct pronouns in Vafsi (Stilo 2010)

- Stilo claims that oblique clitics occur as affixes under specific circumstances
- This talk will show that
a) oblique affixes do not exist and
b) that the oblique 'affixes' are in fact clitics-under-stress

[^0]
## Two sets of clitics

Most likely: Tense-based split ergative system:

## Set 1: direct case

- present: subject
- past: subject of intransitive verbs
- Position: Suffixed to the verb

Set 2: oblique case (ergative)

- past tense subject of transitives
- Position:
- clitic appears before the verbal complex, attaches mostly to the direct object
$\rightarrow$ It can NEVER appear after the verb


## Examples of 'regular' Set2 clitic placement

(3) ya qærri=es [bǽ-košdé ${ }_{v c}$
or witch $=3 \mathrm{SG}_{2}$ PUNCT-killed
'... or he killed the witch.'
(4) soan-e=ra bez-e šax=es $\quad[t i ́ z=a \quad k æ r d æ ̀]_{v c}$
file-F.OBL=with goat-F.OBL horn $=3 \mathrm{SG}_{2}$ sharp=ATTR did
'He sharpened the goat's horns with a file'
(5) bǽlke hævi-án=es [komǽk ær-kæ̀rdæ] ${ }_{v c}$
but all-PL.OBL $=3 \mathrm{SG}_{2}$ help DUR-did
'... but he helped everybody'
(6) tani hæzíri=m [bǽ-diæ] ${ }_{v c}$
he. OBL yesterday $=1 \mathrm{SG}_{2}$ PUNCT-saw
'I saw him yesterday'

## Another function of Set2 clitics

Oblique set2 clitics can also indicate a possessive construction
(7) æhl=e ewdan=ian
inhabitant $=\mathrm{Ez}$ village $=2 \mathrm{PL}_{2}$
'the people of your village'

- Clitic directly follows the possessed item (wherever it appears)


## Another function of Set2 clitics

Oblique set2 clitics can also indicate a possessive construction
(9) æhl=e ewdan=ian
inhabitant $=E Z$ village $=2 \mathrm{PL}_{2}$
'the people of your village'

- Clitic directly follows the possessed item (wherever it appears)
- This common use of the clitic as a possessive or a subject can lead to ambiguities
(10) a. kænizan=es báwattæ 'Her servant girls said (so)' $\rightarrow$ as possessive
b. kænizan=es báwattæ 'She told the servant girls' $\rightarrow$ as subject


## Another function of Set2 clitics

Oblique set2 clitics can also indicate a possessive construction
(11) æhl=e ewdan=ian
inhabitant $=E Z$ village $=2 \mathrm{PL}_{2}$
'the people of your village'

- Clitic directly follows the possessed item (wherever it appears)
- This common use of the clitic as a possessive or a subject can lead to ambiguities
(12) a. kænizan=es báwattæ 'Her servant girls said (so)' $\rightarrow$ as possessive
b. kænizan=es báwattæ 'She told the servant girls' $\rightarrow$ as subject
- Important: An item marked by a possesive set2 clitic cannot host another set2 pronoun clitic!


## Relevant elements in the verbal complex

(3) The durative marker ær
(2) The punctual marker bǽ
(3) The negation marker nǽ

- The preverbs dǽ(r)-, ó(r)-, há(r)-


## Tense-aspect markers æt- and bæ-

- The durative marker ær-:
$\rightarrow$ Unstressed, Form depends on phonological environment

(13) an=om ær-góæ<br>that $=1 \mathrm{SG}_{2}$ DUR-want<br>'I want that'

## Tense-aspect markers æt- and bæ-

- The durative marker ær-:
$\rightarrow$ Unstressed, Form depends on phonological environment
(15) an=om ær-góæ
that $=1 \mathrm{SG}_{2}$ DUR-want
'I want that'
- The punctual marker bǽ-:
$\rightarrow$ Stressed, Form depends on phonological environment
(16) $\mathrm{an}=\mathrm{om} \quad \underline{\text { bǽ-diæ }}$
that $=1 \mathrm{SG}_{2}$ PUNCT-saw
'I saw that'
$\Rightarrow$ If the following item starts with a vowel, the $æ$-vowel is dropped and stress shifts to the following vowel:

$$
\text { báwe "s/he came" } \leftarrow \text { bǽ- }+ \text {-av ('come') }+ \text {-e (3SG) }
$$

$\rightarrow$ Suppressed by negation (bǽ-ssim 'I went', but nǽ-ssim 'I didn't go'), but also by preverbs and complex predicates

## Negation and preverbs

- The negative marker nǽ- (behaves like bǽ-)
- Stressed
- In case of a vowel following, æ is dropped and stress shifts to the following vowel


## Negation and preverbs

- The negative marker nǽ- (behaves like bǽ-)
- Stressed
- In case of a vowel following, $æ$ is dropped and stress shifts to the following vowel
- The preverbs dǽ(r)-, ó(r)-, há(r)-
- Stressed
- Originally directional particles
- Create lexical extensions, finer nuances, or total meaning changes of the verb

| Vafsi | English |
| :--- | :--- |
| girætt | grab, catch |
| ó(r)-girætt | pick up, lift |
| há(r)-girætt | take, get, bury |
| dǽ(r)-girætt | gather up |

- Suppressed by negation
$\rightarrow$ Meanings of the different preverbs fall together
- Some verbs do not have any preverbs, some occur only with a subset, and some only occur with preverbs


## Some odd occurrences of the Set2 clitics

## Some odd occurrences of the Set2 clitics

- There are many cases where the clitic precedes the complex predicate
(19) bǽlke hævi-án=es [komǽk ær-kæ̀rdæ] ${ }_{v c}$ but all-PL.OBL=3SG2 help DUR-did '... but he helped everybody'


## Some odd occurrences of the Set2 clitics

- There are many cases where the clitic precedes the complex predicate
(21) bǽlke hævi-án=es [komǽk ær-kæ̀rdæ] ${ }_{v c}$ but all-PL.OBL=3SG 2 help DUR-did
'... but he helped everybody'
- But the clitic can also occur within the complex predicate, where it attaches to the first element

DUR-an SELF PUNCT-take- $2 \mathrm{SG}_{1}$ or help $=2 \mathrm{SG}_{2}$ do- $1 \mathrm{SG}_{1}$
'Can you carry it yourself or should I help you?'


## Some odd occurrences of the Set2 clitics II

- The clitic can occur preceding the unstressed duration marker in its clitic form (a.) or verb-initially in its 'affixal' form (b.):

(23) a. an=om ær-góæ that $=1 \mathrm{SG}_{2}$ DUR-want<br>'I want that'

b. ìm-ær-góæ
$1 \mathrm{SG}_{2}$-DUR-want
'I want'

## Some odd occurrences of the Set2 clitics II

- The clitic can occur preceding the unstressed duration marker in its clitic form (a.) or verb-initially in its 'affixal' form (b.):
(25) a. an=om ær-góæ that $=1 \mathrm{SG}_{2}$ DUR-want
'I want that'
b. ìm-ær-góæ
$1 \mathrm{SG}_{2}$-DUR-want
'I want'
$\rightarrow$ The affixal form is not restricted to sentence-initial positions:
(26) bá-waz ya ì-r-koš-ome

PUNCT-tell or $2 \mathrm{SG}_{2}$-DUR-kill-1SG ${ }_{1}$
'Tell (me) or I will kill you'
$\rightarrow$ Because of examples like these, Stilo assumes affixal status

## Some odd occurrences of the Set2 clitics III

- The clitic can occur verb-medially following either the punctual marker or the negative marker (in its 'affixal' form), or a preverb (as a clitic):
(27) an=om bǽ-diæ
that $=1 \mathrm{SG}_{2}$ PUNCT-saw
'I saw that'
b. b-ím-diæ

PUNCT-1SG2-saw
'I saw'

## Some odd occurrences of the Set2 clitics III

- The clitic can occur verb-medially following either the punctual marker or the negative marker (in its 'affixal' form), or a preverb (as a clitic):
(29) an=om bǽ-diæ
b. b-ím-diæ
that $=1 \mathrm{SG}_{2}$ PUNCT-saw
'I saw that'
PUNCT-1SG ${ }_{2}$-saw
'I saw'
$\rightarrow$ This is (again) not restricted to sentence-initial positions: (here following a preverb, in this case not in its 'affixal' form)
(30) tinan váxdi=ke nahar=esan hár=es=da ...
they. OBL when=SUB lunch $=3 \mathrm{PL}_{2 \text { (poss) }} \mathrm{PVB}=3 \mathrm{SG}_{2}=$ gave 'When she (=es) gave them (tinan) their (=esan) lunch'


## Distribution oblique pronouns

\(\left.$$
\begin{array}{|c|l|c|}\hline & \text { Position } & \text { Form } \\
\hline 1 . & \begin{array}{l}\text { preceding the verbal complex } \\
\text { (non-initial position) }\end{array} & \text { clitic } \\
\hline 2 . & \begin{array}{l}\text { between the members of a complex predicate } \\
\text { and after the preverbs }\end{array}
$$ \& clitic <br>
\hline 3 . \& preceding the duration marker \& 'affix' <br>

\hline 4 . \& following the punctual or the negation marker \& 'affix'\end{array}\right\}\)| Only if there is |
| :--- |
| no host to the left |

áwæ=s bǽ-paša jaru=s kærd=o dǽr=es=rua qæšeng=o water $=3 \mathrm{SG}_{2}$ PUNCT-sprinkled broom $=3 \mathrm{SG}_{2}$ did=and $\mathrm{PVB}=3 \mathrm{SG}_{2}=$ swept beautiful=and 'He sprinkled water, swept and swept nicely...'
qeylán=es $\quad b=$ ís $=k e s ̌ a=v o \quad$ jens-a suræt=es ú-girættæ=o
water. pipe $=3 \mathrm{SG}_{2 \text { (poss) }}$ PUNCT $=3 \mathrm{SG}_{2}=$ smoked=and good-PL inventory $=3 \mathrm{SG}_{2}$ PVB-took=and
'... and he smoked his waterpipe and took inventory of the goods ....'

## Underlying mechanism: .... Fronting?

- Stilo assumes that the clitic/affix originates within the verbal complex/the verb and is 'fronted' if an adequate host is available



## Underlying mechanism: .... Fronting?

- Stilo assumes that the clitic/affix originates within the verbal complex/the verb and is 'fronted' if an adequate host is available

- But: no unified reason why clitic would be fronted in some constructions but not in others


## Underlying mechanism: .... Fronting?

- Stilo assumes that the clitic/affix originates within the verbal complex/the verb and is 'fronted' if an adequate host is available

- But: no unified reason why clitic would be fronted in some constructions but not in others
- Question: Is there a different explanation?

These examples can be explained with respect to prosody!

Claim:

## These examples can be explained with respect to prosody!

Claim:

- The oblique clitics are syntactically placed just before the verbal complex: XP* $\mathrm{CL}_{2}$ VC


## These examples can be explained with respect to prosody!

Claim:

- The oblique clitics are syntactically placed just before the verbal complex: XP* $\mathrm{CL}_{2}$ VC
- Set2 clitics are enclitics: they need a preceeding host


## These examples can be explained with respect to prosody!

Claim:

- The oblique clitics are syntactically placed just before the verbal complex: XP* $\mathrm{CL}_{2}$ VC
- Set2 clitics are enclitics: they need a preceeding host
- If stranded in the initial position of a prosodic phrase or if left without an adequate host, the clitic is 'moved' into an adequate position
$\rightarrow$ via prosodic inversion (Halpern 1995)



## What we know about Vafsi prosody?

(Based on Stilo (2004a,b)) larger prosodic boundaries $(\iota, \varphi)$ can be found:

- at the beginning of a clause
- in subordinate clauses, stress usually falls on the subordinate conjunction, but not on ke (which thus cannot act as a host for a clitic)
- sustained intonation (pitch level remains high, with a long syllable duration, followed by a short pause $\rightarrow \varphi$ boundary)
- after coordinating conjunctions -o ('and') and ya ('or'),
- often after the subject of a sentence in Vafsi (also Persian ....)
$\Rightarrow$ This explains all instances where the clitic appears following
- the preverbs
- the first element of a complex predicate


## This explains .... constructions with preverbs

- clitics following the stressed preverbs
(31) [hár=om-da]vc yey kelj-i $<\quad(\iota=o m$ [há $\ldots$
$\mathrm{PVB}=1 \mathrm{~s} . \mathrm{OBL}=$ gave one girl-OF
'I gave (it) to some girl.'
$\rightarrow$ clitic would be stranded in initial position of a prosodic phrase


## This explains .... constructions with preverbs

- clitics following the stressed preverbs
(33) [hár=om-da]vc yey kelj-i $<\quad{ }_{\iota}=$ om [há $\ldots$
$\mathrm{PVB}=1 \mathrm{~S} . \mathrm{OBL}=$ gave one girl-of
'I gave (it) to some girl.'
$\rightarrow$ clitic would be stranded in initial position of a prosodic phrase
$\rightarrow$ vs. constructions where the clitic finds an adequate host
(34) tæmen ketab=es [há-baxǎa]vc

1 s . OBL book=3s.obl PVB-gave.away
'He gave a book away to me.'

## This explains .... constructions with complex predicates

- clitics following the first member of a complex predicate

DUR-an SELF PUNCT-take- $2 \mathrm{SG}_{1}$ or help $=2 \mathrm{SG}_{2}$ do- $1 \mathrm{SG}_{1}$
'Can you carry it yourself or should I help you?'
$\rightarrow y a$ is followed by sustained intonation $=$ a prosodic phrase boundary


## This explains .... constructions with complex predicates

- clitics following the first member of a complex predicate
 DUR-an SELF PUNCT-take- $2 \mathrm{SG}_{1}$ or help $=2 \mathrm{SG}_{2}$ do- $1 \mathrm{SG}_{1}$
'Can you carry it yourself or should I help you?'
$\rightarrow y a$ is followed by sustained intonation $=$ a prosodic phrase boundary
$\rightarrow$ vs. constructions where the clitic finds an adequate host
(38) bǽlke hævi-án=es [komǽk ær-kæ̀rdæ] ${ }_{v c}$ but all-PL.OBL $=3 \mathrm{SG}_{2}$ help DUR-did
'... but he helped everybody'


## And with the other markers?

- prosodic inversion is impossible after the unstressed durative marker
$\rightarrow$ marker is not an adequate host
$\rightarrow$ clitic also can't be positioned after the verb


## And with the other markers?

- prosodic inversion is impossible after the unstressed durative marker
$\rightarrow$ marker is not an adequate host
$\rightarrow$ clitic also can't be positioned after the verb
$\Rightarrow$ the clitic remains in situ
$\Rightarrow$ Takes on a clitic-under-stress-form (the former 'affixal form') to account for the phrase-initial position
with an adequate host:
(40) a. an=om ær-góæ that $=1 \mathrm{SG}_{2}$ DUR-want
'I want that'
clitic-under-stress:
b. ìm-ær-góæ *=om-ær ...

1SG2-DUR-want
'I want'

## Similarly with the negation and punctual marker næ-/bæ-

- Both, negation and punctual marker are stressed
$\rightarrow$ are adequate hosts, prosodic inversion can be applied (if needed)


## Similarly with the negation and punctual marker næ-/bæ-

- Both, negation and punctual marker are stressed
$\rightarrow$ are adequate hosts, prosodic inversion can be applied (if needed)
But: if these markers are followed by a vowel, they drop their vowel ( $\mathfrak{m}^{-}$), and stress is shifted to the following vowel
$\rightarrow$ The clitic is again 'under stress'
with an adequate host:
(42) a. an=om bǽ-diæ
that $=1 \mathrm{SG}$ PU-saw
'I saw that.'
clitic-under-stress:
b. b=ím-diæ

PU-1SG-saw
'I saw.'

- Derivation of 'I saw'

| 1. | input | =om bǽ-diæ |
| :--- | :--- | :--- |
| 2. | prosodic inversion | bǽ=om-diæ |
| 3. | vowel deletion, stress shift | b=óm-diæ |
| 4. | clitic under stress | b=ím-diæ |

## A cumulation of examples

```
áwæ=s bǽ-paša | jaru=s kærd=o || dǽr=es=rua qæšeng=o |
water=3\mp@subsup{SG}{2}{\prime}}\mathrm{ PUNCT-sprinkled || broom=3SG2 did=and | PVB=3SG2}=\mathrm{ swept beautiful=and |
'He sprinkled water, swept and swept nicely...'
```



```
'... and he smoked his waterpipe and took inventory of the goods ....'
```


## A cumulation of examples



```
'He sprinkled water, swept and swept nicely...'
```



```
'... and he smoked his waterpipe and took inventory of the goods ....'
```

- Question: How can we represent this in Lexical-Functional Grammar?


## Demonstration examples

(43) a. b=ím-diæ<br>PU-1SG-saw<br>'I saw.'

b. an=om bǽ-diæ
that $=1$ sG PU-saw
'I saw that.'

## Demonstration examples

(44) a. b=ím-diæ<br>PU-1SG-saw<br>'I saw.'

b. an=om bǽ-diæ that $=1$ SG PU-saw 'I saw that.'

- A very initial c-structure ( $\mathrm{XP}^{*} \mathrm{CL} \mathrm{VC}$ ) ...



## Demonstration examples

(45) a. b=ím-diæ

PU-1SG-saw
'I saw.'
b. $\mathrm{an}=\mathrm{om}$ bǽ-diæ that $=1$ SG PU-saw 'I saw that.'

- A very initial c-structure ( $\mathrm{XP}^{*} \mathrm{CL} \mathrm{VC}$ ) ...

$\rightarrow$ C-structure works for b. (which is straightforward), but not for a.!


## Demonstration examples

(46) a. b=ím-diæ

PU-1SG-saw
'I saw.'
b. $a n=0 m \quad$ bǽ-diæ that $=1 \mathrm{SG}$ PU-saw 'I saw that.'

- A very initial c-structure ( $\mathrm{XP}^{*} \mathrm{CL} \mathrm{VC}$ ) ...

$\rightarrow$ C-structure works for b. (which is straightforward), but not for a.!
$\rightarrow$ Resolved via the syntax-prosody interface (as proposed in Bögel (2015))


## The Prosody-Syntax interface (Bögel 2015)

Two perspectives:
(Roughly following models as proposed by, a.o., Levelt (1999) and Jackendoff (2002))

- Production: from meaning to form (syntax $\rightarrow$ prosody)
- Comprehension: from form to meaning (prosody $\rightarrow$ syntax)

b : The Transfer of structure $\rightarrow$ Information on (larger) syntactic and prosodic phrasing, and on intonation is exchanged
$\rho$ : The Transfer of vocabulary $\rightarrow$ Associates morphosyntactic and phonological information on lexical elements and projects them to their respective structures


## P-structure - the p-diagram (during production!)

- Linear representation in the p-diagram
$\rightarrow$ structured syllablewise
$\Rightarrow$ Each syllable is part of a vector associating the syllable with relevant values: $\rightarrow$ lexical stress, segments, prosodic phrasing, ...
- Input to the p-diagram comes from c-structure (Transfer of structure) and the lexicon (Transfer of vocabulary)

| $\uparrow$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| PHRASING | $(\iota=\sigma$ | $(\omega \sigma$ | $\sigma$ | $\left.\sigma)_{\omega}\right)_{\iota}$ |
| $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| LEX_STRESS | - | prim | - | - |
| SEGMENTS | $/$ om $/$ | $/ \mathrm{b} æ /$ | $/ \mathrm{di} /$ | $/ æ /$ |
| V. INDEX | $\mathbf{S}_{1}$ | $\mathbf{S}_{\mathbf{2}}$ | $\mathbf{S}_{\mathbf{3}}$ | $\mathbf{S}_{\mathbf{4}}$ |

## P-structure - the p-diagram (during production!)

- Linear representation in the p-diagram
$\rightarrow$ structured syllablewise
$\Rightarrow$ Each syllable is part of a vector associating the syllable with relevant values: $\rightarrow$ lexical stress, segments, prosodic phrasing, ...
- Input to the p-diagram comes from c-structure (Transfer of structure) and the lexicon (Transfer of vocabulary)

| $\uparrow$ | $\uparrow$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| PHRASING | $(\iota=\sigma$ | $(\omega \sigma$ | $\sigma$ | $\left.\sigma)_{\omega}\right)_{\iota}$ |
| $\ldots$ | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |
| LEX_STRESS | - | prim | - | - |
| SEGMENTS | $/ \mathrm{om} /$ | $/ \mathrm{b} \ngtr /$ | $/ \mathrm{di} /$ | $/ æ /$ |
| V. INDEX | $\mathbf{S}_{1}$ | $\mathbf{S}_{\mathbf{2}}$ | $\mathbf{S}_{3}$ | $\mathbf{S}_{\mathbf{4}}$ |

- Includes language-specific phonological processes ('postlexical phonology')
- But first: transfer processes to p-structure to create this initial p-diagram


## The Transfer of Vocabulary

- Associates morphosyntactic and phonological information on lexical elements
- Via the multidimesional lexicon, which projects them to their respective structures

| s(yntactic)-form |  |  | p(honological)-form |  |
| :---: | :---: | :---: | :---: | :---: |
| bǽ-diæ V | ( $\uparrow$ PRED) $(\uparrow$ TENSE $)$ $(\uparrow$ ASPECT $)$ $\ldots$ | $\begin{aligned} & \left.\hline={ }^{\prime} \text { diæ〈SUBJ }\right\rangle \\ & =\text { past } \\ & =\text { punctual } \end{aligned}$ | P-FORM SEGMENTS METR. FRAME | [bǽdiæ] <br> /b ædiæ/ $(' \sigma \sigma \sigma)_{\omega}$ |
| om PRON | $(\uparrow$ PRED) $(\uparrow$ PERS $)$ $(\uparrow$ NUM $)$ $(\uparrow$ CL-TYPE $)$ | $\begin{aligned} & =\text { 'pro' } \\ & =1 \\ & =\text { sg } \\ & =\text { set2 } \end{aligned}$ | P-FORM SEGMENTS METR. FRAME | [om] /om/ $=\sigma$ |

## The Transfer of Vocabulary

- Associates morphosyntactic and phonological information on lexical elements
- Via the multidimesional lexicon, which projects them to their respective structures

| s(yntactic)-for |  | p(honological)-form |
| :---: | :---: | :---: |
| bǽ-diæ V | $\begin{array}{ll} \hline \hline(\uparrow \text { PRED }) & ={ }^{\prime} \text { diæ }\langle\text { SUBJ }\rangle^{\prime} \\ (\uparrow \text { TENSE }) & =\text { past } \\ (\uparrow \text { ASPECT }) & =\text { punctual } \end{array}$ | P-FORM [bǽdiæ] <br> SEGMENTS /bæd $\mathrm{i} æ /$ <br> METR. FRAME $(' \sigma \sigma \sigma)_{\omega}$ |
| om PRON | ( $\uparrow$ PRED) $=$ 'pro' <br> $(\uparrow$ PERS $)$ $=1$ <br> $(\uparrow$ NUM $)$ $=\mathrm{sg}$ <br> $(\uparrow$ CL-TYPE $)$ $=\operatorname{set} 2$ <br> $\ldots$  |   <br> P-FORM $[\mathrm{om}]$ <br> SEGMENTS $/ 0 \mathrm{~m} /$ <br> METR. FRAME $=\sigma$ |

- Each lexical dimension can only be accessed by the related module
$\rightarrow$ Modular: strict separation of module-related information
$\rightarrow$ Translation function: Once a dimension is triggered, the related dimensions can be accessed as well.
$\Rightarrow$ Associated $\mathbf{p}$-form is selected and made available to $\mathbf{p}$-structure.


## The Transfer of Vocabulary II

| p(honological)-form |  |
| :---: | :---: |
| P-FORM | [bǽdiæ] |
| SEGMENTS | /bædiæ/ |
| METR. FRAME | $(' \sigma \sigma \sigma)_{\omega}$ |
| P-FORM | [om] |
| SEGMENTS | /om/ |
| METR. FRAME | $=\sigma$ |


| $\uparrow$ | $\downarrow$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| PHRASING | $=\sigma$ | $(\sigma$ | $\sigma$ | $\sigma)_{\omega}$ |
| LEX_STRESS | - | prim | - | - |
| SEGMENTS | $/$ om $/$ | $/ \mathrm{b} æ /$ | $/$ di $/$ | $/ æ /$ |
| V. INDEX | $\mathbf{S}_{\mathbf{1}}$ | $\mathbf{S}_{\mathbf{2}}$ | $\mathbf{S}_{\mathbf{3}}$ | $\mathbf{S}_{\mathbf{4}}$ |

## The Transfer of Vocabulary II

| p(honological)-form |  |
| :--- | :--- |
| P-FORM | $[\mathrm{b} æ ́ d i æ]$ |
| SEGMENTS | $/ \mathrm{b} \mathrm{æ} \mathrm{d} \mathrm{i} \mathrm{æ/}$ |
| METR. FRAME | $(' \sigma \sigma \sigma)_{\omega}$ |
| P-FORM | $[\mathrm{om}]$ |
| SEGMENTS | $/ \mathrm{o} \mathrm{m} /$ |
| METR. FRAME | $=\sigma$ |


| $\wedge$ | $\downarrow$ |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| PHRASING | $=\sigma$ | $(\sigma$ | $\sigma$ | $\sigma)_{\omega}$ |
| LEX_STRESS | - | prim | - | - |
| SEGMENTS | $/$ om $/$ | $/ \mathrm{b} æ /$ | $/$ di $/$ | $/ æ /$ |
| V. INDEX | $\mathbf{S}_{\mathbf{1}}$ | $\mathbf{S}_{\mathbf{2}}$ | $\mathbf{S}_{\mathbf{3}}$ | $\mathbf{S}_{\mathbf{4}}$ |

- Also needed: Information on larger prosodic constituents
$\rightarrow$ Via the transfer of structure


## The Transfer of Structure ... from syntax to prosody



- where $S_{\text {min }}$ refers to the first syllable within the scope of a node
- where $S_{\text {max }}$ refers to the last syllable within the scope of a node
$\rightarrow$ Roughly following Selkirk (2011)'s Match theory


## The Transfer of Structure ... from syntax to prosody



- where $S_{\min }$ refers to the first syllable within the scope of a node
- where $S_{\max }$ refers to the last syllable within the scope of a node
$\rightarrow$ Roughly following Selkirk (2011)'s Match theory
- But problem still unresolved $\rightarrow$ postlexical phonology


## Postlexical phonological processes

Input to p-structure: (via transfer processes)

| $\uparrow$ |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: |
| PHRASING | $(\iota=\sigma$ | $(\sigma$ | $\sigma$ | $\left.\sigma)_{\omega}\right) \iota$ |
| LEX_STRESS | - | prim | - | - |
| SEGMENTS | $/$ om $/$ | $/ \mathrm{b} \neq /$ | $/ \mathrm{di} /$ | $/ æ /$ |
| V. INDEX | $\mathbf{S}_{\mathbf{1}}$ | $\mathbf{S}_{\mathbf{2}}$ | $\mathbf{S}_{\mathbf{3}}$ | $\mathbf{S}_{\mathbf{4}}$ |

## Postlexical phonology:

(sandhi rules, mismatches etc ...)


| input: |  | =om bǽdiæ |  |  |
| :---: | :---: | :---: | :---: | :---: |
| prosodic inversion: |  | bǽ=om=diæ |  |  |
| stress shift: |  | bím= diæ |  |  |
| $\downarrow$ |  |  |  |  |
| $\uparrow$ |  |  |  | $\uparrow$ |
| PHRASING | ( $\iota(\sigma$ | $\sigma$ | $\left.\sigma)_{\omega}\right) \iota$ |  |
| LEX_STRESS | prim | - | - |  |
| SEGMENTS | [bím] | [di] | [æ] |  |
| V. INDEX | $\mathrm{S}_{1}$ | $\mathrm{S}_{2}$ | $\mathrm{S}_{3}$ |  |

## Output of p-structure:

## Overall framework



## Conclusion

- Vafsi oblique clitic pronouns do not have an affixal counterpart


## Conclusion

- Vafsi oblique clitic pronouns do not have an affixal counterpart
- Their placement can be explained if considering both, c-structure and p-structure
$\rightarrow$ The clitics are syntactically placed immediately preceding the verbal complex
$\rightarrow$ If necessary, they are prosodically 'replaced' to account for their need of an host
$\rightarrow$ The difference in form can be accounted for by assuming an unstressed and a stressed version of the clitic


## Conclusion

- Vafsi oblique clitic pronouns do not have an affixal counterpart
- Their placement can be explained if considering both, c-structure and p-structure
$\rightarrow$ The clitics are syntactically placed immediately preceding the verbal complex
$\rightarrow$ If necessary, they are prosodically 'replaced' to account for their need of an host
$\rightarrow$ The difference in form can be accounted for by assuming an unstressed and a stressed version of the clitic
- The resulting analysis can be straightforwardly implemented at the syntax-prosody interface as proposed in Bögel (2015).


## Thank you!

... questions, comments...?

## References


[^0]:    $1_{\text {masc/fem }}$
    2-e after consonants

