

PHI FEATURES FOR PHONOLOGY; EDGE FEATURES FOR PROSODY.  
INSIGHTS INTO THE SYNTAX-PF INTERFACE

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Vocatives are “an interesting grammatical category, yet underexplained”

[Levinson 1983:71]

ISSUES

1. Phonology, Syntax, Syntax-PF interface for left peripheral elements
2. The nature of syntactic features
3. The phonological vs prosodic realization of syntactic features

PAPER OUTLINE

1. THE PHONOLOGY AND SYNTAX OF VOCATIVES
  - 1.1. More vocatives-by-truncation
  - 1.2. Why truncation is an issue
2. THE SYNTAX OF VOCATIVES
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  - 4.1. Vocatives in SIDs
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1. THE PHONOLOGY AND SYNTAX OF VOCATIVES

Many languages form vocatives (and/or hypocoristics) by means of truncation (Cabrè 1993, Thornton 1996):

Northern Italian dialects:

- |     |       |                           |
|-----|-------|---------------------------|
| (1) | Gabri | [ <i>Gabriella</i> ]      |
| (2) | Giova | [ <i>Giovanni</i> ]       |
| (3) | Magi  | [ <i>Maria Giovanna</i> ] |

German:

- |     |      |                     |
|-----|------|---------------------|
| (4) | Gabi | [ <i>Gabriela</i> ] |
| (5) | Miki | [ <i>Michaela</i> ] |

→Truncation to a foot.

Central and southern Italian dialects, Sardinian Catalan, Corsican, Sardinian (Alber 2010, Vanrell & Cabré 2011):

- (6) Mari' [*Maria*]
- (7) Mariacarme' [*Mariacarmela*]
- (8) Andreadalpo' [*Andrea dal Pozzo*]

→ Truncation, but not to a prosodic constituent.

Q1: how can this truncation be accounted for?

Observe the variation:

- (9) a. A Mariacarmela Dell' Arcipre', vi' qqua!  
part Mariacarmela Dell' Arciprete come here
- b. Tu, Mariacarmela Dell' Arcipre', vi' qqua!  
you, Mariacarmela Dell' Arciprete come here
- c. Tu, surelle di Marije, vi' qqua!  
you, sister of Mary come here

And:

- d. A **Bia'** ✓ **truncation**  
part Bianca  
'Bianca!'-voc
- e. Wuaglione nghə la majetta **bbianghə!** × **truncation**  
Girl with the white t-shirt!  
'You girl with the white t-shirt!'- voc

[Bianca (N): *Bianghə*  
white (A), fsg: *bianghə*]

Why do we observe truncation in 9 (a,b) but not in 9c? In (9d) but not in (9e)?

### 1.1. More vocatives-by-truncation

Yapese (Austronesian language in Micronesia)

[Jensen 1977 in Heinz 2008]

(10)

<i>name</i>	<i>vocative</i>
lu.ʔag	luʔ
ba.jaad	baj
ma.ŋɛɛ.fɛɛl	maŋ

Central Yupik (Alaska Eskimo-Aleut)

[Woodbury 1985 in Heinz 2008]

(11)

<i>name</i>	<i>proximal vocative</i>
A.ŋu.kay.naq	A.ŋuk <sup>1</sup>
Nu.pi.yak	Nu.pix, Nu.pik
Cu.pəl.laq	Cu.pəl
A.ŋiv.yan	A.ŋif
Ka.lix.tuq	Ka.lik
Qə.tun.yaq	Qə.tun
Mayw.luq	Mayw (*Mayw.luq)
Ay.na.ya.yaq	A.yən (*Ay.nay)
Nəŋ.qə.çal.yia	Nə.ŋəq (*Nəŋ.qəç)
Qak.fa.yal.yia	Qak (*Qak.fay)
A.kiu.yal.yia	A.kiuk (with a 'compressed' diphthong that has just one mora)

Indonesian

[Cohn 2004]

(12)

<u>Base</u>	<u>Short form</u> (truncation)	<u>Gloss</u>
a. Terms of address		
anak	nak	'child'
bapak	pak	'father'
b. Personal names		
Agus	Gus	
Lilik	Lik	

Algherese Catalan  
2008]

[Kuen 1932, Prieto &amp; Cabré

(13)

Pàuru! (proper name) > Pa!	Ròsa! (proper name) > Rò!
Barbarína! (proper name) > Barbarí!	Tarésa! (proper name) > Taré!
Antòni! (proper name) > Antò!	Ríta! (proper name) > Arrí!
Fabio! (proper name) > (o) Fà!	Juàn! (proper name) > (o) Juà!

Q2: why is truncation so often associated with vocative?

Vocatives very often display a dedicated morphological marking

Q3: How does the DP get this phonological exponence? Is vocative a case?

1.2. Why truncation is an issue

## Grammatical architecture

The Mirror Principle (Baker 1985): morphological and syntactic patterns mirror each other (“one to one correlation between the linear ordering of verbal grammatical-function-changing morphology, the syntactic behavior of the arguments of the resulting verb form, and the semantic interpretation of the entire structure” [Harley 2013:36])

Koontz-Gaborden (2007): Monotonicity Hypothesis

“Word formation can manipulate existing syntactic terminal nodes, creating a word out of two terminals. [...]

Nothing can destroy or remove existing structure when it is built.

[Harley 2013:36]

Vocatives: we are talking about simple words -

Yet: we cannot ADD a morpheme which subtracts a (not better specified) part of a word

## 2. THE SYNTAX OF VOCATIVES

What we know about vocatives (from Schaden 2010)

- Vocatives are nominal elements referring to the addressee of a sentence
- In European grammatical tradition vocative is taken to be a case form
- Vocative does not serve as an argument of the verb, and is set off from the rest of the sentence by some special intonation (Zwicky 1974: 777).

Three syntactic factors (Moro 2004):

1. the Vocative phrase does not belong to the thematic grid of the main predicate of the clause
2. the Vocative phrase may also not co-occur with an article
3. the Vocative phrase may also be preceded by an emphatic interjection (or particle)

- 1, 2, and 3 are weak facts to claim that there is a vocative Case, but they show that at least VOCATIVE PHRASES BEHAVE DIFFERENTLY FROM ARGUMENTAL NOUN PHRASES.

Q4: Are vocatives in the “tree”? If so, where are they?

Moro: they are in the left periphery, somewhere higher than Force, on the basis of examples like:

(14) **O Pietro**, Gianni baciava Maria in giardino [Moro 2004:259]  
 o Pietro, Gianni kissed Maria in garden  
 “Pietro, Gianni was kissing Maria in the garden”

(15) Gianni pensa, **(o)Maria**, che Pietro abbia letto un libro [Moro  
 2004:258]

“Gianni thinks, (o) Maria, that Pietro has read a book”

Word order proposed for Italian:

(16) C° = **Voc** > Force > (Top > Foc > Top) Fin [Moro 2004]

Slocum (2010): vocatives in English between Top and Foc:

(17) I think that eventually, Paul, Congress will pass the bill.

Espinal (2011): both are right. Two possible positions for vocatives:

A. In the tree (above Force, like Moro claims)

B. Parentheticals (i.e. in any position in the clause)

Espinal: Vocatives are either ON the Vocative projection or they are “linked” to it

Recall examples 9 (a,b,c):

- (9) a. A Maria Carmela Dell’ Arcipre’, vi’ qqua!  
part Maria Carmela Dell’ Arciprete, come here  
b. Tu, Maria Carmela Dell’ Arcipre’, vi’ qqua!  
you, Maria Carmela Dell’ Arcipre’ come here  
c. Tu, surelle di Marije, vi’ qqua!  
you, sister of Mary come here

How can we account for the difference?

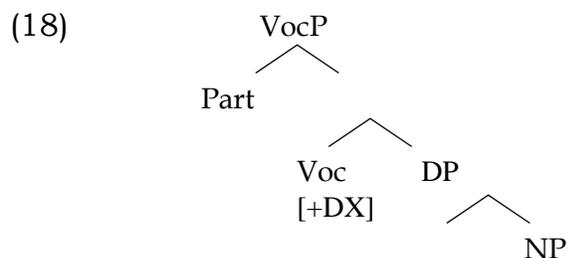
### 2.1. True and fake vocatives

Espinal (2011): vocatives come in two fashions:

A. TRUE vocatives

B. FAKE vocatives

TRUE vocatives: always deictic. They move on the Voc head (which we have called Addressee) and “check” / get the [+DX] feature by movement. The Voc head may host a vocative particle in its specifier. Tu (“you” is always a true vocative).



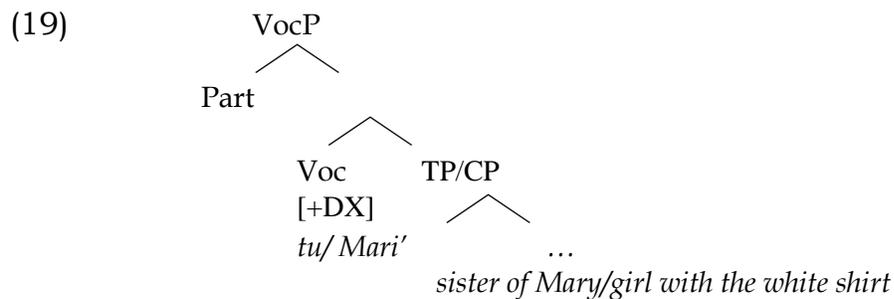
FAKE vocatives: “predicational”. They introduce predicational information about the addressee. Fake vocatives are somewhere in the complement of the Voc and get linked to the Voc head, but don’t move onto it because they’re XPs.

[Fake vocatives are parenthetical, they behave like adjuncts]

CLAIM:

In Southern Italian dialects TRUE vocatives get truncated, FAKE vocatives don’t.

In (9), (9a) and (9b) are true vocatives, (9c) is a fake vocative [as it predicates something of the addressee, but the deictic part is given by *tu*].



### 2.1.1. The nature of [+DX]. Vocatives vs imperatives.

- Vocative: above Force (Moro, Espinal) [encoding info re: the referent/addressee]
- Addressee: below Force (in the CP-IP field) (Sigurðsson 2000, 2004a,b, Speas 2000, 2004, Bianchi 2003a,b, Poletto 2000 etc.) [encoding info re: the speech act participant]

Imperatives: imperatives occupy the Addressee projection (Portner 2007, Zanuttini 2008).

Vocatives and imperatives have in common a head encoding deictic information.

### PROPOSAL

- Vocative is a deictic head above Force encoding the ADDRESSEE (Portner 2007, Zanuttini 2008, D’Alessandro 2004, 2007, Espinal 2011). [+DX] is an ‘edge’feature, i.e. a feature triggering movement for interpretational reasons (Chomsky 2000, 2001, 2008).  
[I say to you that] it is raining
- ‘Speech Act’ (following Sigurðsson 2000, 2004a,b Speas 2000, 2004, Bianchi 2003a,b etc) is a head in the CP-IP domain encoding information about pronoun (or clitics). The referents are encoded via φ-specification.
- Moving or linking to Voc: vocatives (and maybe ‘true’ imperatives, showing truncation)
- Moving or linking to Speech Act: 3rd person imperatives/ clitics/ impersonal *si* (Portner 2007, Zanuttini 2008, D’Alessandro 2002, 2004a,b, 2007, 2008, Poletto 2000).

D'Alessandro (2002, 2004a,b, 2007, 2008): The [arb] feature on impersonal *si* needs to be valued by the Speech Act projection (Speaker+Addressee) in order for *si* to receive its inclusive interpretation.

This  $\phi$ -valuation takes place in the syntax – we see its effects on agreement patterns:

- (20) Si è mangiato  
si is eaten  
'One has eaten'
- (21) Si è arrivati  
si is arrived  
'We have arrived'
- (22) Si è belli  
si is beautiful  
'We are beautiful'

Linking [arb] to the Speech Act head (speaker+addressee) triggers plural agreement on the participle or on the adjective (*si* is syntactically singular).

Imperatives in Italian have specific  $\phi$ -inflection (depending on the verb class): *mangia, bevi, fai*. There can be 3rd person imperatives, but not 3rd person vocatives.

If a vocative co-occurs with an imperative:

- (23) Mari', vivətə na bbirrə [Abruzzese]  
Mary-voc drink-imp a beer  
'Mary, drink a beer!'
- (24) Mari' chi ni li ficə casca'  
Mary that not it let fall  
'Mary don't let it fall'
- (25) Mari', chi ti puzza noma 'mbennə  
Mary that you can impers. hang  
'Mary may someone hang you' [lit. Mary, someone hang you!]

- [Voc [Force [Speech Act

→ The left periphery needs to be extended above Force (or on a 3rd dimension, like adjuncts)

Q5: Why truncation? Why a "prosodic" tool?

### 3. SYNTAX-PROSODY

General observation:

Prosody (e.g., intonation, phrasing) targets the left periphery and never anything else

- One can't express Nominative by intonation in any (non-tonal) language; one can't express Accusative by means of truncation in any language

BUT

- One can express wh- (questions) by means of pure intonation (i.e. prosody)
- One can express Topics and Foci by means of intonation
- One can express imperatives by means of intonation
- One can express vocatives by means of intonation

→ prosody can only target the left periphery, not “core” argumental syntax

How can we express this?

The exocentric phonological behavior is a result of the peripheral/external syntactic position and of the fact that discourse-related, pragmatic-syntactic features (corresponding to Fregean *Urteil*- content becoming judgment; Frege 1879) are read by a different phonological cycle than  $\varphi$ - and Case features (corresponding to Fregean *Inhalt*- pure content).

In other words: Prosody targets “edge features” (*lato sensu*) (Chomsky 2000, 2001, 2008), i.e. features that trigger movement to the left periphery for interpretational reasons AND that are encoded on functional heads in the extended left periphery. (Generalized EPP features excluding A-mvt features)<sup>1</sup>.

Proposal

PROSODY READS/INTERPRETS EDGE FEATURES  
PHONOLOGY INTERPRETS  $\varphi$  AND STRUCTURAL CASE FEATURES

Vocative can be realized by means of prosody; Nominative cannot.

#### 4. THE PHONOLOGY OF VOCATIVES

Vocatives in Southern Italian dialects are obtained by truncation

Two constraints (Alber & Arndt-Lappe 2009, Alber 2010):

(26) ANCHOR- LEFT: makes sure that the initial segment is preserved

ANCHOR-STRESS: makes sure that the stressed vowel is the end

+ some Contiguity constraint which preserves everything in between.

(27)

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<sup>1</sup> By ‘edge features’ we do not mean EM features that trigger movement to the phase edge.

(12) Stress-anchoring as a case of stress-preservation:

- in truncations which exhibit stress-anchoring, stress is *always* preserved, e.g.:

(13) Southern Italian Vocatives: anchoring to both the first and the stressed syllable

Bá – Bárbara

Carmé – Carméla \*Cárme

Antoné – Antonélla \*Antóne

Stress of the base is preserved on the same vowel in the truncation morpheme, although final stress is *not* the default stress in Italian (default=penultimate)

Stress preservation is not necessary under anchoring to the left edge. Compare:

(14) Italian disyllabic name truncation:

Fránce – Francésca \*Francé

Ále – Aléssia \*Alé

Ánto – Antonélla

Problems with this analysis:

1. A constraint aligning a stressed vowel with the edge of a phrase is somewhat suspicious for a template: neither the truncated form, nor the thing which is deleted is a prosodic constituent
2. Why would we choose truncation for vocatives (and imperatives?) and not for other morphological 'cases' / verbal moods?

Göksel & Pöchtrager (2010): vocatives are realized exclusively by prosodic means in Austrian German and Turkish.

(28)

	σ	AG	TR	σ σ	AG	TR	σ σ σ	AG	TR	σ σ σ σ	AG	TR
<i>Nom.</i>	Háns Cán			Márkus Ásh			Flórian Hüseýin			Alexánder Húsaméttin		
<i>Voc.</i>	Háns Cán			Márkus Ásh			Flórian Hüseýin			Alexánder Húsaméttin		
<i>Surprise address</i>	Háns Cán			Márkus Ásh			Flórian Hüseýin			Alexánder Húsaméttin		
<i>Calling</i>	Há-ans Cá-an			Márkus Ásh			Flórian Hüseýin			Alexánder Húsaméttin		

Their conclusions:

- Given that the patterns are (i) robust, (ii) systematic and (iii) in their definition crucially rely on linguistic notions (syllable, word edges etc.), they must be seen as part of the language system, not just as functional structures manifesting themselves in language use only.
- The rich array of categories expressed only by prosody, e.g. the vocative, argues against a notion of morphology that relies on strict serialisation of morphological markers; rather, the phonological material representing different categories is superimposed over each other.

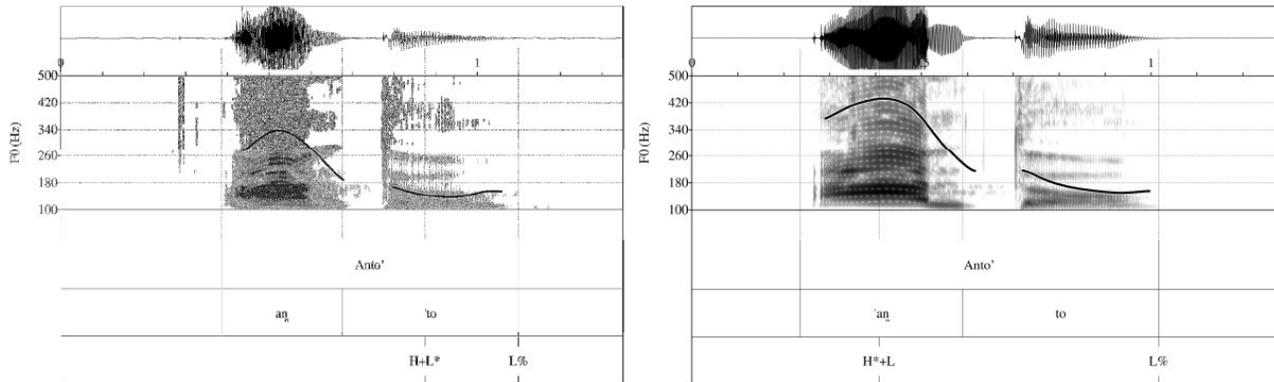
4.1. Vocatives in SIDs

Recall: TRUE vocatives in SIDs are obtained by means of truncation of anything that follows the stressed vowel:

(29) Mariagiova'

PROPOSAL: The exponent of the vocative is (at least) a pitch accent, which is specified for being at the same time a boundary tone (i.e. T\*%).

Pitch accent --> makes it want to be on the stressed syllable;



Boundary tone --> makes it want to be at the edge of the constituent.

(from Vanrell & Cabré 2011)

Conflicting requirements!

The paradox is resolved by making the stressed vowel be exactly on the edge of the constituent – i.e. by truncation of everything following it.

Aside: such truncation behaviour as a result of tone is found in tonal languages as well. E.g. in Limburgian dialects of Dutch, we find the following singular-plural alternation:

(30) honjtj 'dog' (Sg.)      hYnj 'dog' (pl)

This looks as morphological truncation (plural is expressed by deleting the stemfinal plosive), but it can be shown that in reality plural is expressed by a falling tone, and this following tone is incompatible with a nasal+plosive cluster (Van Oostendorp 2006). It is this incompatibility that is responsible for phonological deletion of the plosive.

## 5. BACK TO FEATURES

- “ $\varphi$ ” features and “edge” features are derivationally distinct
- syntax has, as it were, two independent cycles: first, one in which  $\varphi$ -features operate, and afterwards one in which edge features are operative.
- Each of these two cycles has its own spell-out: the former to segmental phonology (and propositional semantics = Frege's Inhalt, content), the second to intonational and other types of prosodic phonology (and discourse semantics = Frege's Urteil, judgement).

- The reason why intonation etc. can only play a role in the second cycle is obvious: syntactic heads which phonologically consist of only suprasegmental material can only be realized if segmental material has already been provided on an earlier cycle.

## CONCLUSIONS

Q1: How can truncation in Southern Italian dialects be accounted for?

A1: By formulating an exponent of the vocative which is (at least) a pitch accent specified for being at the same time a boundary tone (i.e. T\*%)

Q2: Why is truncation so often associated with vocative?

A2: Because Vocative is a head with a [+DX], i.e. with an edge feature which “feeds” intonational and prosodic phonology, and not  $\phi$ -features.

Q3: How does the DP get this phonological exponence? Is vocative a case?

A3: True vocatives are heads, hence they don't need case and they are licensed by moving to the Voc head. Fake vocatives get their vocative marking by being linked to the VocP (plausibly by Agree with the Voc head).

Q4: Are vocatives in the “tree”? If so, where are they?

A4: Vocatives are in the tree, but maybe not in the spine, above the Force head.

Q5: Why truncation? Why a “prosodic” tool?

A5: Because [+DX] is an edge feature and “edge” features are instantiated through prosody.

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