# Tendencies in the morphological realisations of calls and addresses

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#### Overview

### Calls, (non-initial) addresses and how they are realised

#### Parameters of variation

Optionality

Degree of Autonomy

Position

Definiteness

Non-at-issue content

Physical distance

Specification of the addressee

Syntactic host

### Calling contours and grammatical tone

### **Analysis**

Vocatives are modifiers Implementation in *Type Theory with Records* Prosodic aspects of calls





▶ 1



- 1≥ 2



- ≥ 2≥ 3





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- **2**
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- For 107 languages vocative markers were mentioned



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- 1. Calls: designed to catch attention (only initial)
  - Conative interjection hey has a similar function Zwicky (1974, p. 787), Portner (2007, p. 411)
  - May involve optional lengthening of vowels that in other contexts cannot be long and other processes that enhance tune bearing properties (Ladd 1978, p. 518 and Hayes and Lahiri 1992, pp. 78, 81–83 for English, Sóskuthy and Roettger 2020, pp. 141–143)
  - (1) Hey lady, you dropped your piano.



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Calls as independent speech acts???

- Vocatives can bear independent contour, intonation phrase, e.g. vocative phrase
- how can they be integrated in Speech Act Phrase
- mostly: one ι corresponds to one CP (cf. Dehé (2009))
- two ι within one SpeechActP?
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Physical distance

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- 1. Optionality
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- 8. Syntactic host (noun vs. utterance)



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- In a few languages mandatory in every context: vocative suffixes in Czech and Greek, vocative particles in Baoulé and Umbundu (Atlantic-Congo) or Maori (Austronesian)
- In some languages mandatory in specific contexts: vocative particle o as a marker of politeness in Attic Greek, particle á García-Fernández (2023, p. 226) with H+L\*L% vocative chants in Asturian

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   Arabic in can occur as an independent utterance with an independent intonation phrase ι
- Other vocative markers cannot occur independent of a host: Old Bulgarian suffix -le, the Modern Bulgarian suffix -be, the Umbundu prefix a (cf. Hill 2007, pp. 2087–2090, 2022, pp. 2–3, 9)

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- 3. Calls and addressess can function as independent speech acts or sentence types (cf. Levinson (1983, pp. 71, 281, 308–312), following Schegloff (1972, pp. 357–359); Asher and Kumari (2013, p. 186) and Borràs-Comes, Sichel-Bazin, and Prieto (2015, p. 70))

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- 4. In many languages vocative markers can apply to more complex syntactic hosts and utterances
- Vocative nouns are systematically incompatible with determiners holds in most language
   unless languages may use 3rd person as form of distant





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In addition, several tendencies regarding the formation of vocatives have been observed in the sample of languages investigated here: (i) The the vast majority of examples in the grammars reviewed here feature vocatives that appear at the beginning of an utterance, rather than in mid-utterance or utterance-final positions. Stavrou (2013, pp. 324, 327–328) However, Cowan (1969, p. 22) explicitly stresses that vocatives in Tzotzil have a strong preference to occur clause finally this could be a side effect of the rather rare verb-object-subject order in main clauses. Likewise, vocatives in Wandala (Afroasiatic, Chadic) are more common in utterance final position (cf. Frajzyngier 2012, pp. 538-540). In a similar manner, Leech (1999, pp. 114-115) found that utterance final vocatives account for 272 out of 400 vocatives attested in his corpora of British and American English.

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ETRAS LISBOA





- **1**
- **2**



- **1**
- **2**
- **>** 3



- **1**
- **2**
- **>** 3
- **>** 4



- **1**
- **2**
- **>** 3
- **>** 4
- **>** 5



#### Vocative particles in European languages

language	item	optionality	autonomy	position	address	call	distance	social relation
Portuguese	ó	<b>√</b>	_	pre-N	(√)	<b>√</b>		intimate
Asturian	á	√/—	_	pre-N	_	/	?	?
Catalan	eh	✓	✓	pre-N	?	/	?	?
	ey	✓	✓	pre-N	?	✓	?	?
Sardinian	b	✓	_	pre-N	_	✓		?intimate
Scots Gaelic	а	?	?	pre-N	✓	✓	?	? formal
Irish	а	?	?	pre-N	✓	✓	?	?
English	hey	✓	✓	pre-N	_	✓		informal
Viennese German	heast	✓	✓	pre-N	_	/		intimate
	heans	✓	✓	pre-N	_	✓		informal
	ge	✓	✓	pre-N	_	✓		informal
Albanian	0	?	?	flexible	?	?	?	?
Old Bulgarian	-le/le	✓	_	post-N	?	✓	?	?
Bulgarian	be	✓	_	post-N	?	✓	?	?
Romanian	bre	✓	✓	pre-N	?	✓	?	informal
	măi	✓	✓	pre-N	✓	✓	?	informal
	bă(i)	✓	✓	pre-N	?	✓	?	inf. M.
	fă(i)	✓	✓	pre-N	?	✓	?	inf. F.
Greek, Attic	ō	_	?	pre-N	✓	✓	?	formal
Modern Greek	vre	✓	✓	pre-N	✓	/	?	informal
	0	✓	✓	pre-N	✓	/	?	?
	e	✓	_	pre-N	_	✓	?	?
Persian	ey	✓	?	pre-N	✓	_	?	archaic

Table: Vocative particles in European languages



# Vocative particles in Asian, Oceanic and American languages

language	item	optionality	autonomy	position	address	call	distance	social relation
Mari	-j	✓	_	post-N	?	<b>√</b>	?	intimate
Lezgian	ja	✓	?	pre-N	✓	/	?	?
Arabic	ya:	✓	✓	flexible	✓	/	?	?
Nivkh AD/ESD	-a/-aj	?	?	post-N	?	/	?	?
Nivkh AD	-o/-ģo	?	?	post-N	?	/	?	?
Mandarin	a	✓	?	post-N	?	/	?	formal
Korean	(y)a	?	?	flexible	?	/	?	children
	i/Ø	?	?	flexible	?	/	?	adolescent
Karbi	ó	?	?	pre-N	?	/	?	?
Dumi	e:	?	?	pre-N	?	/	?	?
Lao	?e:j	?	?	post-N	?	/	?	?
Indonesian	nah	✓	?	pre-N	?	/	?	?
	hai	✓	?	pre-N	?	/	?	?
Maori	е	_	?	pre-N	?	/	?	?
	wa:	✓		flexible	✓	/	?	?
Rapa Nui	е	?	?	pre-N	?	/	?	?
•	eē	?	?	post-N	✓	(√)	?	?
Amele	0	✓	?	flexible	?	1	?	?
Kobon	0	✓	?	post-N	?	1	distal	?
	e/me/rö	✓	?	post-N	✓	/	?	?
Coastal Marind	ay	?	✓	post-N	?	1	?	?
	aw	?	✓	pre-N	?	1	?	?
Hualapalai	é	?	?	post-N		/	prox	?
	(y)é	?	?	post-N	?	/	prox	?
	(w)ó	?	?	post-N	_	1	dist	?
Cl. Nahuatl	-é	?	?	post-N	?	1	?	M. SPKR
Aymara	-ya	✓	?	post-N	?	/	?	(intimate)



### Vocative particles in African languages

language	item	optionality	autonomy	position	address	call	distance	social relation
Kissi	wéì	<b>√</b>	?	post-N	?	<b>√</b>	?	children
Kissi	é	1		pre-N	?	/	?	?
Mani	-yò, -yè	✓	?	post-N	?	✓	?	?
Koromfe	é	✓		pre-N	?	✓	?	?
Baoulé	-à	_	?	post-N	?	✓	?	?
Ewe	ée	✓	?	post-N	?	✓	dist	?
Gwa	yèé	?	?	?	?	?	prox	?
	yèééè	?	?	?	?	?	dist	?
	xùúúù	?	?	?	?	?	dist	?
Yorùbá	ò	✓	✓	post-N		✓	?	?
ljo	-àa	✓	?	post-N	?	✓	?	?
Eton	á	✓	?	pre-N	?	✓	?	?
Gyele	-ò	✓	?	post-N	?	✓	prox	?
	-ó	✓	?	post-N	?	✓	dist	?
бака	-ó	?	?	post-N	?	✓	?	?
Umbundu	á-/ ′	_	_	pre-N	✓	✓	?	?
Rufumbira	yee (we)	?	?	pre-N	✓	✓	?	?
Tswana	-a	?	?	post-N	✓	✓	?	intimate
Zulu	е	✓	?	pre-N		✓	prox	intimate
	we	✓	?	pre-N	?	✓	dist	?
	au	✓	?	pre-N	?	✓	?	solemn
Naro	-è	?	?	post-N	?	✓	?	?
Lugbara	la/là	✓	?	post-N	?	✓	?	?
Dinka	-ee	✓	_	post-N	?	<b>√</b>	dist	singular
	-ke	✓	_	post-N	?	✓	dist	plural
Tarifiyt Berber	a-	?	?	pre-N	?	/	?	?
Tashlhiyt Berber	wa-	?	?	pre-N	?	✓	?	?
	taba	✓	?	pre-N	?	✓	?	senior.F
	(da)dda	?	?	pre-N	?	✓	?	senior.M
Somali	-èey/-àay/ -òoy	✓	_	post-N	?	✓	dist	hon. F.
	-òw	✓	_	post-N	?	✓	?	hon. M.
	-yahay	✓	_	post-N	?	✓	?	inf. F.
	-yohow	/	_	post-N	?	/	?	inf. M.



### Vocative suffixes

language	item	optionality	position	address	call	distance	social relation
Czech		_	stemfinal	<b>√</b>	<b>/</b>		
Polish		✓	stemfinal	✓	✓	?	formal
Croatian		✓	stemfinal	✓	✓	?	?
Romanian	-e	✓	stemfinal	✓	✓	?	informal
Bulgarian	-0	✓	stemfinal	✓	✓	?	intimate
	-e	✓	stemfinal	✓	✓	?	intimate
Modern Greek		_	stemfinal	✓	✓	?	?
Lithuanian		?	stemfinal	✓	✓	?	?
Urdu		?√	stemfinal	✓	✓	?	?
Hindi		?	stemfinal	✓	✓	?	?
Georgian	-0	√-	stemfinal	✓	<b>√</b>		
Limbu	-e	?√	stemfinal	✓	✓	?	?
Ket	-á/-ó	✓	stemfinal	?	✓	prox	?
	-á/-ó	✓	stemfinal	?	✓	distal	?
Udihe	-i	✓	stemfinal	✓	✓	?	intimate
	-e	✓	stemfinal	✓	✓	distal	?
Itelmen	-е/-а	✓	stemfinal	✓	✓		?
Martuthunira	-yi	?	stemfinal	?	✓	?	?
Mangarrayi	-y	✓	stemfinal	?	✓	?distal	?
Nez Perce	-e	?	stemfinal	?	✓	?	intimate-jun
	-e?	?	stemfinal	?	✓	?	intimate-sen
Central Alaskan Yupik	-mi	?	stemfinal	?	/	?	formal

Table: Vocative suffixes



### Non-concatenative vocative realisations I

language	type	optionality	address	call	distance	social relation
Karo Batak	vowel length.	?	?	<b>_</b> /	?	?
Chuchki	vowel length.	?	?	/	?	?
Central Alaskan Yupik	vowel length.		?	/	dist	intimate
Chipewyan	vowel length.	?	?	✓	?	?
Sierra Miwok	vowel length.	?	?	✓	?	?
Mohawk	vowel length.	?	?	1	?	?
Hidatsa	vowel length.	?	?	✓	?	?
Wakashan	ablaut	?	?	<b>_</b> /	?	?
	u>o, i>e					
Turkana	tonal infl.	?	?	<b>√</b>	?	?
Shilluk	tonal infl. H	?	?	/	?	?
Ngiti	tonal infl. H	?	?	/	?	?
Somali	tonal infl.	?	?	/	?	?
Karbi	tonal infl. M	?	✓	✓	?	?
Indo-European, Hungarian, Turkish	L+H*!H%	✓	_	<b>√</b>	dist	intimate
German	L*+H L-H%	✓	_	/		intimate
Yorùbá	register rise	✓	_	/	dist	
Thai	leveling of H,M,L	✓	_	/		
Mandarin	final L%	✓	_	/		
Wolof	final sustained H%	?	?	/		
Mani	final sustained H%	?	?	1		
Daakaka	vocative chant	?	?	1	?	intimate

Table: Non-concatenative vocative forms I



### Non-concatenative vocative realisations II

language	type	optionality	address	call	distance	social relation
Persian	stress-shift	?	?	<b>√</b>	?	?
Turkish	stress-shift	?	?	/	?	?
Uzbek	stress-shift	?	?	/	?	?
Nivkh	stress-shift	?	?	/	?	?
Nahuatl	stress-shift	?	?	✓	?	?
Sardinian	truncation	?	<b>/</b>	<b>√</b>	?	?
Central Alaskan Yupik	truncation		?	/	?prox	intimate
Seedig	truncation	?	?	/	?	intimate
Kilivila	truncation	✓	✓	/	?	?
Yapese	truncation	?	?	/	?	?
Indonesian	truncation	?	?	/	?	?

Table: Non-concatenative vocative forms II



Daniel and Spencer (2009, pp. 628–631) and Sóskuthy and Roettger (2020, pp. 141–144):

```
(6) OMA: [friː. də. 'riː. (7) MAFALDA: ó Marina VOC Marina kə] MARINA: sim<sup>H-%</sup>
```

FRIEDERIKE: [jax.

!H-%

!H-%

L+H\*

(8) TOMAS: Barboro.
Barbora.voc

BARBORA: jo<sup>H-%</sup>/ ano<sup>H-%</sup> yes yes



yes

Daniel and Spencer (2009, pp. 628–631) and Sóskuthy and Roettger (2020, pp. 141–144):

(8) TOMAS: Barboro.
Barbora.voc



Daniel and Spencer (2009, pp. 628–631) and Sóskuthy and Roettger (2020, pp. 141–144):

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Essential properties of calling contours: distance, stereotypized situation and familiarity

SPKR not sure whether they have the ADDR's attention

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- SPKR has some expectation p<sub>exp</sub> about the outcome (reference to routine/stereotypized situation/expectable outcome/familiarity, cf. Ladd 1978, pp. 520–524)

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- ightharpoonup SPKR assumes that  $p_{\rm exp}$  is known to addressee too, hence part of common ground
- ► They introduce QUD 'are you ready to cooperate with respect to the content of the directive?'



### @@@UPDATE: The status of intonation contours

Broad consensus: vocative particles and affixes are morphemes. But what about intonation contours? Two perspectives:

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- Sóskuthy and Roettger (2020, pp. 141–143, 150–153): intonation contour and prosodic shape of vocatives itself are not a morpheme yet
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  - If the intonation contour is not a shape, what kind of form function pair is it then?
- Long tradition of phonologists who consider pitch accents and edge tones as abstract morphemes (Bolinger 1957, 1989; Liberman 1975, p. 133, Gussenhoven 1984; Pierrehumbert and Hirschberg 1990; Bartels 1999, pp. 72–77; Truckenbrodt 2012, pp. 2043, 2051)

Claim here: vocatives can be realised in several ways.



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  - intonation contour

Haspelmath and Sims (2010, pp. 34–38) non-concatenative morphemes are quite common to convey grammatical information or functions. Tone is a means to code grammatical information in the Atlantic-Congo phyla (grammatical tone).



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  - b. \* Die Mimi, pass bitte auf
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  - Very different phenomenon than canonical case (cf. Daniel and Spencer 2009, 626, ??), but nevertheless tight relation between N + vocative





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- Vocatives act as modifiers of speech acts, they are fairly different from case like affixes, they can modify different speech act types
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- Calling contours express that there is a certain degree of social familiarity between SPKR and ADDR
- 6.  $p_{exp}$  is part of the common ground



### Plan

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# Grammatical tone: Verbs in Èdóid

Verbs in (West Benue/Atlantic-Congo): PRESENT and PAST tense with distinct tones, similar applies to the formation of imperative forms (cf. Melzian 1942, pp. 59–77, 77–79 **Ogie2009**, Schaefer and Egbokhare 2017, pp. 15–20):

- (10) Òtà gbèn èbé.<sup>5</sup>
  Òtà write.PRS books
  'Òtà writes books (every day)'
  'Òtà is writing a books (every day)'
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- Dogon languages (cf. Heath and McPherson 2013, McPherson and Heath 2015 Heath 2015): verb derivation processes, purposive clause formation and possessor NPs are marked by a distinguished tonal pattern
- Chalcatongo Mixtec (Oto-Manguean Central Mexico) adjectives derivation can be derived from nouns by the application of a non-concatenative derivational morpheme replacing all the tones of the noun stem with high tones (cf. Macaulay 1996, pp. 64–65)

### **Grammatical Tone**

Definition grammatical tone by Rolle (2018, p. 19):

Grammatical tone (GT): a tonological operation which is not general across the phonological grammar, and is restricted to the context of a specific morpheme or construction, or a natural class of morphemes or constructions (i.e. grammatically conditioned tone addition, deletion, replacement, shifting, assimilation, dissimilation, etc.)

Replacive-dominant grammatical tone Rolle (2018, pp. 4–6, 53–57):

Replacive-dominant: the automatic replacement of the underlying tone of the target, revalued with a grammatical tune



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1. Lexicon entry for vocative morpheme



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- 2. Type hierarchy of prosodic constituents inspired by Klein (2000)
  - intonation contours (pitch accent, phrase tones, boundary tones) represented in Type intonation phrase
- 3. Addresses are proper speech acts modelled as binary branching phrasal schemes
  - CCs as requests for attention
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  - determine morphological form as independent particle, affix or tonal morpheme (intonation contour)
- 4. Conversational rules to license CCs and their responses
  - ▶ QUD<sub>call</sub> and QUD<sub>message</sub> into QUD-list
  - QUD<sub>call</sub> can be explicitly and implicitly downdated





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#### Evidence that vocatives are modifiers:

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- 5. Share crucial properties with affixes that are considered as modifiers, e.g. German *un-*, *erz-*, *miss-*



In many languages, calling contours are compatible with different speech acts/sentence types, such as German (cf. Gibbon 1976, pp. 274–287), English (cf. Ladd 1978, pp. 520–525; **SunwooCondoravdi2017 SunwooCondoravdi2017**, **SunwooCondoravdi2018**) and Hungarian (cf. Varga 2008, pp. 480–481, 492–494):

speech act	default	calling contour	
GREETINGS	Hallo <sup>H*L-L%</sup>	Hallo <sup>L+H*!H-%</sup>	'hello'
ADDRESS	Susi <sup>H*L-L%</sup>	Susi <sup>L+H*!H-%</sup>	
wh-Q	Wo bist Du?H*L-L%	Wo bist Du?L+H*!H-%	'Where are you?'
Polar Q	Kannst Du mich hören <sup>L*H-</sup> H*	Kannst Du mich hören <sup>L+H*!H-%</sup>	'Can you hear me?'
ASSERTION	Das Essen ist fertigH*L-L%	Das Essen ist fertig <sup>L+H*!H-%</sup>	'The food is ready'.
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- No strict selectional restrictions.
- Basic illocutionary force remains intact (cf. Ladd 1978, pp. 525–526, 535 for similar observations)
- Puzzle: how to build same utterance with diverging intonations? Is the default intonation overriden? constituent with underspecified intonation??



# Interaction of intonation and particles

Sequence of vocative particle and intonation contour, cf. also Borràs-Comes, Sichel-Bazin, and Prieto (2015, pp. 71–75) for similar observation on 'insistent nature' of CCs:

(12) OLD LADY: 6 Junior!<sup>7</sup>
VOC Junior

'Barbora!' CZECH

Dog: [ignoring the old lady]

'Barbora!' CZECH

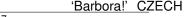
OLD LADY: Junior<sup>L+H\*</sup> !H-%

junior

'Barbora!' CZECH

Coincidence of vocative particle and intonation contour:

(13) FEMALE VOICE: ó João!<sup>L+H\*</sup> !H-%8 João







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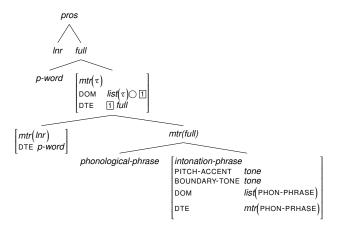
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Prosodic aspects of calls



## Type hierarchy for prosodic constituents with contours

#### Inspired by Klein (2000, p. 190):



# Type hierarchy – comments



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▶ DOM: domain corresponds to the present prosodic constituent and its subparts as a list

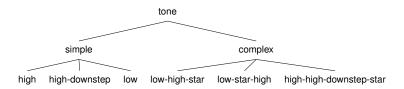


# Type hierarchy – comments

- DOM: domain corresponds to the present prosodic constituent and its subparts as a list
- ▶ DTE: designated terminal element most prominent subpart of the present constituent/nuclear accent (Klein (2000, p. 175))



# Type hierarchy for tone



Assuming that only intonation phrases bear tones combining the type hierarchy suggested by Bildhauer (2007, p. 139) and the inventory of German tones composed by Grice, Baumann, and Benzmüller (2005, pp. 65–69)



# Lexicon entry of the vocative morpheme (calling contour)

```
 \left[ \begin{array}{c} \mathsf{phon} = \langle \left[ \begin{array}{ccc} \mathsf{pitch}\text{-}\mathsf{accent} = \mathsf{low}\text{-}\mathsf{high}\text{-}\mathsf{star} & : & \textit{Tone} \\ \mathsf{phrase}\text{-}\mathsf{tone} = \mathsf{downstep}\text{-}\mathsf{high} & : & \textit{Tone} \end{array} \right] \rangle : \textit{PhonPhrase} \\ \left[ \begin{array}{cccc} \mathsf{spkr} & : & \textit{Ind} \\ \mathsf{addr} & : & \textit{Ind} \\ \mathsf{m} & : & \textit{AbstSemObj} \\ \mathsf{p}_{\mathsf{exp}} & : & \mathsf{Prop} \\ \mathsf{c}_{\mathsf{att}} & : & \neg \mathsf{know}(\mathsf{spkr},\mathsf{have}(\mathsf{spkr},\mathsf{attention})) \\ \mathsf{c}_{\mathsf{cxp}} & : & \mathsf{expect}(\mathsf{spkr},\mathsf{p}_{\mathsf{exp}}) \\ \mathsf{c}_{\mathsf{fam}} & : & \mathsf{familiar}(\mathsf{spkr},\mathsf{addr}) \\ \mathsf{Facts} & : & \mathsf{Set}(\mathsf{Prop}) \cup \mathsf{c}_{\mathsf{exp}} \cup \mathsf{c}_{\mathsf{fam}} \\ \mathsf{Moves} = \langle \rangle & : & \textit{IllocProp} \\ \mathsf{QUD} = \{\} & : & \textit{Poset}(\textit{Question}) \\ \end{array} \right] 
        cont=cooperate!(addr,spkr,m):Outcome
```



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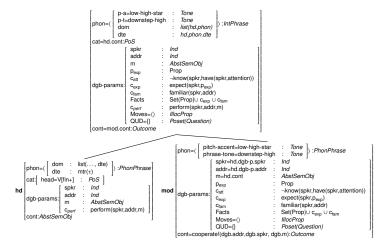
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# Phrasal scheme for RCC with more complex utterances (head-modifier analysis)







Syntactic properties (cat value) are determined by the head-daughter



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- RCCs convey propositional content is reflected by the cont-field



### Conversational rule for licensing calls

#### $MakeInitialSententialAddress =_{def}$

```
spkr : Ind addr : Ind f : ¬know(spkr,?attentive(addr,spkr))

pre : m : AbstSemObj moves=⟨⟩ : IllocProp qud=⟨⟩ : poset(Question)
Facts : Set(Prop)∪f

LatestMove=init-addr(spkr,addr,m) : IllocProp
```

ca=cooperate!(pre.addr,pre.spkr,pre.m) : Outcome qud=(ia,pre.m) : poset(Question)



### Conversational rule for licensing calls

### $MakeInitialSententialAddress =_{def}$

```
 \begin{bmatrix} \text{spkr} & : \textit{Ind} \\ \text{addr} & : \textit{Ind} \\ \text{f} & : \neg \text{know(spkr,?attentive(addr,spkr))} \\ \text{m} & : \textit{AbstSemObj} \\ \text{moves=}\langle\rangle & : \textit{IllocProp} \\ \text{qud=}\langle\rangle & : \textit{poset(Question)} \\ \text{Facts} & : \textit{Set(Prop)}\cup f \\ \end{bmatrix}   \texttt{effects} : \begin{bmatrix} \text{LatestMove=init-addr(spkr,addr,m)} & : \textit{IllocProp} \\ \text{ca=}\textit{cooperate!}(\textit{pre.addr,pre.spkr,pre.m}) & : \textit{Outcome} \\ \text{qud=}\langle \text{ia,pre.m} \rangle & : \textit{poset(Question)} \end{bmatrix}
```

Rule adds QUD<sub>call</sub> and QUD<sub>message</sub> to QUD-list





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- QUD-list contains disjunction of content of call and content of message to ensure both can be at issue



# Conversational rule for Explicit Response to Sentential Call

#### Explicit Response to Sentential Call=def

```
pre : 

| Spkr | addr | ia=cooperate!(pre.addr,pre.spkr,pre.m) | Prop/Outcome | MostSemObj | moves=\( \) init-addr(spkr,addr,m) \( \) : | IllocProp | qud=\( \) ia,m \( \) : poset(Question) |

| effects : | Spkr=pre.addr | init-addrespkr | init-
```

- Explicit response: QUD<sub>call</sub> is down dated
- Implicit response: Ginzburg (2012, pp. 80–86) using am modified version of the conversational rule Fact Update/QUD-Downdate



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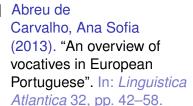
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  - Vocatives exhibit properties of modifiers
  - Vocatives modify speech acts rather than nouns, insofar very different from case (cf. Daniel and Spencer 2009, 626, ??

- ? vocatives inflection yes: affixes: resyllabification no: particles ? intonation -Edo uses tone to inflect for tense no: intonation can attach to speechacts does one want speech act to inflect???
  - Calling contours are a non-concatenative instantiation of vocatives
    - Share lots of properties with dominant-replacive grammatical tone (potential to 'override' default intonation contour)
  - Vocatives exhibit properties of modifiers
  - Vocatives modify speech acts rather than nouns, insofar very different from case (cf. Daniel and Spencer 2009, 626, ??
  - Same same speech act with different intonation contours
    - Head of the entire speech act will determine prosodic and intonational properties of its subparts via selectional restrictions
    - Assertion with calling contour selects constituents with phrase tone !H-





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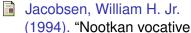
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### Plan

#### Overview

Calls, (non-initial) addresses and how they are realised

#### Parameters of variation

Optionality

Degree of Autonomy

Position

Definiteness

Non-at-issue content

Physical distance

Specification of the addressee

Syntactic hos

#### Calling contours and grammatical tone

### **Analysis**

Vocatives are modifiers

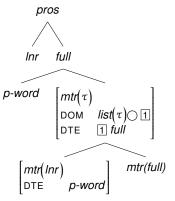
Implementation in Type Theory with Records

Prosodic aspects of calls



### Type hierarchy for prosodic constituents

Klein (2000, p. 190): HPSG type hierarchy including phonological words and metrical trees.





## Intonation contours at the level of pwords?

Evidence for pwords with intonation: Non-clausal utterances consisting of a single pword can carry intonation:

```
(14) Mother: [frix. də. 'rix. kə]
                        L+H*!H-%
      Friederike: [jax. ax]
                  I +H* IH-%
      Utterance
  Intonation Phrase
Phonological Phrase
 Phonological Word
```

### Intonation contours at the level of pwords? II

```
Standard assumption (cf. Nespor and Vogel 2007,
Pierrehumbert, Selkirk); ? : prosodic constituents
      Utterance
  Intonation Phrase
Phonological Phrase
 Phonological Word
     [friːdəriːkə]
Intonation comes it at IP
```



Varga (2008)



#### Varga (2008)

 Strategy I: pitch accents and boundary tones at the level of phonological words (cf. Bildhauer 2007, pp. 139–142)

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- Strategy II: pitch accents and boundary tones at the level of intonation phrase (cf. Klein 2000, p. 173, Nespor and Vogel 2007, p. 187), which can be characterised as:
  - having attribute for PITCH-ACCENT
  - 2. having attribute for BOUNDARY-TONE
  - 3. selecting constituents of type phonological phrase

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- ➤ Strategy I: pitch accents and boundary tones at the level of phonological words (cf. Bildhauer 2007, pp. 139–142)
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  - having attribute for PITCH-ACCENT
  - 2. having attribute for BOUNDARY-TONE
  - 3. selecting constituents of type phonological phrase
- Challenge: Pierrehumbert and Hirschberg (1990, pp. 276–278), Truckenbrodt (2013, pp. 586–587): some English and German varieties have pitch accents at intermediate phrase level/phonological phrase level





- 1. Summons (always initial, may have quasi)
  - 1.1 Terms of adress: John?, Dr., Mr. Jones?, waiter
  - 1.2 Courtesy phrases: Pardon me
  - 1.3 Physical devices: a tap on the shoulder, waves of a hand, raising of a hand by an audience member



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- 2. Answers
  - 2.1 Yes?
  - 2.2 What?
  - 2.3 Uh uh?



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- Answers
  - 2.1 Yes?
  - 2.2 What?
  - 2.3 Uh uh?
  - (15) A: John?
    - B: Yes?

