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

Orientation

Forms of marking

Particles

Concatenative vocative forms

Non-concatenative vocative forms

Vowel lengthening

Ablaut

Tonal inflection and Grammatical tone



Stress-shift Truncation Vocative chants Reduplication Suppletion

Calling contours and grammatical tone Prosodic aspects of calls



Structure

- Slide Particles
- 2. Slide Case?? -Definition, typological preference -Counter

Arguments

ADD slides with Case realisation types

-Vocative chants list

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ADD- difficulty to use phonological evidence to decide between barticle and affix

Bonus:

ADD to table: Ngardi und Wubuy

ALIGN KEY FINDINGS

Parameters

— parallels: exclamatives, imperatives vocatives, integrate into paramenters

clausal vocatives: allocutive

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mention: -concatenative -case??

-non-concatenative -base modification: ablaut -base



Implications

Calls as independent speech acts???

Syntactic accounts: vocatives are part of Speech Act Phrase LOOK FOR latex notes where I discuss the difference: interaction with intonation contour

- 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?
- ▶ for addresess: often cliticize, e.g. Gussenhoven (2004)
- two SpeechActPs within one ι?
- One sentence, two intonation contours? initial vocatives e.g. Calling contour + imperative
- one contour: final vocatives, integrated??? e.g.
 Gussenhoven
- ▶ Is it one or two speech acts???



Slides



https://dkaramasov.github.io/mache/presentations/25-tendencies-in-the-morphological-realisations-of-calls-and-addresses.pdf



Article

Special issue of Catalan Journal of Linguistics, on *The phonology-morphology interface in word-formation*, edited by Eulàlia Bonet and Claudia Pons-Moll



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https:
//revistes.uab.cat/catjl/issue/view/v24-n1
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Goal

- Continuum of vocative marking: complex vocative chants to affixes.
- The dimension manner matters in grammar: morphemes to encode that message is addressed at referent not ratified as speech participant overhearer.
- Goffman (1976, p. 260), Goodwin (1982, pp. 3–6): Three types of listeners.
 - 1. Overhearer.
 - Ratified listener.
 - 2.1 Directly addressed.
 - 2.2 Not specifically addressed, but part of a group of discussion participants.
- Forms of realisation: The (almost) whole spectrum of concatenative and non-concatenative morphological processes described in HaspelmathSims2010



Outline

- Grammars and case studies for about 200 languages studied
- For 108 languages marked vocatives were mentioned
- Corpus study for European Portuguese (João Azevedo)



Basic terminology: Calls and Addresses I

Zwicky (1974, p. 787), Leech (1999, pp. 116–117), Stavrou (2013, pp. 328–329): Phrases marked as vocatives can occur in two functions:

1. Calls:

- Only utterance initial
- Designed to catch attention
- Often/(?)always independent intonation phrase ι
- Conative interjection hey has a similar function Zwicky (1974, p. 787), Portner (2007, p. 411)
- May involve optional lengthening of short vowels in English (Ladd 1978, p. 518 and Hayes and Lahiri 1992, pp. 78, 81–83 for English, Sóskuthy and Roettger 2020, pp. 141–143)
- Also observed in animal communication
- (1) Hey lady, you dropped your piano.



Basic terminology: Calls and Addresses II

2. Addresses:

- Also utterance medial (parenthetical) and utterance final
- Designed to maintain attention, reinforcing social relationship (cf. Droste and Günthner 2021, Leech 1999, pp. 116–117, Stavrou 2013, pp. 328–329)
- Conative interjection hey less felicitous
- Vowel lengthening appears to be less felicitious
- Often unstressed, prosodic clitics (cf. Beckman and Pierrehumbert 1986, pp. 293–298 and Gussenhoven 2004, pp. 291–294)
- (2) I'm afraid, sir, that my coyote is nibbling on your leg.



Parameters of variation

- 1. Optionality
- 2. Degree of Autonomy
- 3. Position
- 4. Definiteness
- 5. Non-at-issue content
- 6. Physical distance
- 7. Specification of the addressee
- 8. Syntactic host (noun vs. utterance)
- 9. Orientation



Optionality

Marking of vocative nouns (phrases):

- In most languages optional
- 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

Degree of Autonomy

- Many vocative particles such as hey in English or ya:
 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)

16/81

Three positions

Leech (1999, pp. 107–108, 114–115) and Stavrou (2013, pp. 323–329) differentiate between three types of vocatives:

- Utterance initial: Typically separate prosodic unit (intonation phrase ι with complete contour)
- ▶ Utterence medial: Often a separate prosodic unit, type of parantheticals, constraint to particular positions much rarer (cf. Dehé 2009, pp. 570–571, 575, 610, Espinal 2013, pp. 310, 315–316, Stavrou 2013, pp. 325–326, Slocum 2016, pp. 159–196 and D'Alessandro and Oostendorp 2016, p. 69)
- ▶ Utterance final: most often as a prosodic clitic, integrated into boundarytone of preceeding intonation phrase (cf. Beckman and Pierrehumbert 1986, pp. 293–298 and Gussenhoven 2004, pp. 291–294)



Initial vocatives

- (3) [ν_{OC} Ty n'iνγ-a] t'a ykyn-doχ this man-νOC NEG elder.brother-DAT/ADD t'axta-ja.¹ be.angry-IMP
- (4) [voc Nya jìdó]! Ge mi-ya:m-ay-ng-yó?²
 my mother.voc.dist how 2-go-Fut-2-Q.voc.dist
 'My mother! (I can't see you, but I know you are somewhere out there) Where are you going?' HUALAPAI

'This man, don't be angry at [your] elder brother.'

NIVKH

¹As cited in Gruzdeva (1998, p. 20)= ex. (19).

²As quoted in Watahomigie, Bender, and Yamamoto (1982, pp. 74–75) = ex. (63).

Final vocatives

- (5) ¿Ko ŋaro'a 'ana e koe, e Hana ē?³
 PRF perceive CONT AG 2S.S VOCPRT Hana VOCPRT
 'Did you hear that, Hana?' [R485.016] RAPA NUI
- (6) Ciamar a tha thu, [voc a Mhórag]⁴. how PRT be.2s 2s.s VOCPRT VOC.Morag 'How are you, Morag?' MacKinnon (1971, pp. 171–174) SC. GAELIC



 $^{^{3}}$ As quoted in Kieviet (2017, pp. 440–441) = ex. (225).

⁴As quoted in MacKinnon (1971, p. 171).

Medial vocatives

- (7) a. Thelo na se do, [VOC Maria], want.PRS.1S SBJV 2S.ACC see.1S Maria.VOC avrio.5 tomorrow

 'Mary, I want to see you tomorrow'
 - b. * Thelo na, [VOC Maria], se do want.PRS.1S SBJV Maria.VOC 2S.ACC see.1S avrio.6 tomorrow
 - c. * Thelo na se, [VOC Maria], do want.PRS.1S SBJV 2S.ACC Maria.VOC see.1S avrio.7 tomorrow



 $^{^{5}}$ As quoted in Stavrou (2013, p. 325) = ex. (45b).

⁶As quoted in Stavrou (2013, p. 325) = ex. (45a). ⁷As quoted in Stavrou (2013, p. 325) = ex. (45a).

Medial vocatives and parantheticals

- Espinal (1991, pp. 741–744), Dehé (2009, p. 325), Stavrou (2013, p. 325): medial vocatives behave like parentheticals
- Stavrou (2013, p. 325) medial vocatives in Greek
 - Possible
 - After preverbal TOP
 - After preverbal SUBJ
 - After V before OBJ
 - Impossible
 - After subjunctive complementizer na
 - ► After object clitics e.g. se 'ACC.3s'
 - After complementizer oti 'that'
- ??Vocatives cannot serve as host for prosodic clitics that occur in the clause



Functions

Two main functions of vocative nouns (cf. Schegloff 1968, pp. 1080–1081, Zwicky 1974, pp. 787–788, Levinson 1983, pp. 70–73, Leech 1999, pp. 108–109, 116–117, Sonnenhauser and Noel Aziz Hanna 2013, pp. 14–15, d'Avis and Meibauer 2013, pp. 191–197, Stavrou 2013, pp. 305–306, 327–329 and Slocum 2016, pp. 3–5, 10–12):

- 1. **Calls (Summonses):** To attract attention of an overhearer, always utterance initial.
- 2. **Addresses:** Maintain attention, can be utterance medial (parenthetical), or utterance final
- ► Leech (1999, pp. 116–117): Addresses more used to establish and perform social relations.
- ► Levinson (1983, pp. 70–73): No term of address is neutral with respect to social hierarchies.



Global preferences?

- Most grammars only have examples of utterance initial vocatives
- Stavrou (2013, pp. 324, 327–328): Initial position most common and typical in Modern Greek Greek
- Leech (1999, pp. 114–115): Corpus of 400 vocatives of British and American English: 45 stand alone: initial 46; 37 medial; 272 final.
- Strong preference for final position in Tzotzil (Mayan, cf. Cowan 1969, p. 22) and Wandala (Afroasiatic, Chadic cf. Frajzyngier 2012, pp. 538–540)



No determiners I

b.

Vocative nouns are not compatible with determiners, noun-class affixes and related markers required in argument position. In many spoken varieties of Hungarian, proper names are preceded by the definite determiner *a*:

- (8) a. Jön a Péter.⁸ comes DET Péter
 - '(The) Péter comes'

 * A Péter, gyere.9
 - DET Péter come-IMP.2s
 - Intended meaning '(The) Peter come!' HUNGARIAN
 - c. Péter, gyere. 10
 Péter. VOC come-IMP. 2S
 - 'Péter come!'

HUNGARIAN

HUNGARIAN



⁸As quoted in Szabolcsi (1994, p. 215) = ex. (84)

⁹As quoted in Szabolcsi (1994, p. 215) = ex. (86)

¹⁰As quoted in Szabolcsi (1994, p. 215) = ex. (86)

No determiners I

Similar incompatibilities attesed with many unrelated languages:

- ► Italian (cf. Longobardi 1994, 626–627 Fn.20)
- Hungarian (Szabolcsi 1994, pp. 215–216)
- German (cf. Schaden 2010, p. 179, Göksel and Pöchtrager 2013, p. 89, Stavrou 2013, p. 329)
- Catalan (cf. Espinal 2013, pp. 110, 112, 117, 123, Borràs-Comes, Sichel-Bazin, and Prieto 2015, p. 70),
- English (cf. Leech 1999, p. 107)
- Modern Greek (cf. Stavrou 2013, pp. 304, 319, 329–337)
- East Bantu (cf. Ndayiragije, Nikiema, and Bhatt 2012, pp. 116–117, Hill 2014, pp. 126–128)
- ► Mossi (Gur, Atlantic-Congo) (cf. Rennison 2013, p. 80)



No determiners II

- Ngandi (cf. Heath 1978, pp. 35–37, 48, 52) and Wubuy (cf. Heath 1984, p. 217) (both Gunwinyguan)
- Tzotzil (Mayan, cf. Cowan 1969, pp. 70–71)
- Chuckchi (cf. Dunn 1999, p. 318).
- ► Kilivali (Austronesian, Oceanic, cf. Senft 1986, pp. 43–44)



Person features

The cross-linguistically attested incompatibility of vocatives with determiner as feature clash:

- ► Fink (1972, pp. 65–67): **vocative nouns** as exponent of 2nd PERSON.
- Bernstein (2008, pp. 1251, 1257–1262) and Hill (2022, pp. 4–5): determiner as exponents of 3rd PERSON.
- ► Bobaljik (2008, pp. 206–207):
 - ► 2nd PERSON as [-SPKR,+ADDR]
 - ▶ 3rd PERSON as [-SPKR,-ADDR].



Non-at-issue content

Zwicky (1974, pp. 796–797), Dascălu (1985, p. 317), Serbat (1996, pp. 101–102) Implicit statements about:

- Physical distance
- Social distance
- Reference to shared expectations
 - European (L+)H*!H-% vocative chant: routine/shared expectations fulfilled, no new commitment, beneficial outcome (cf. Ladd 1978, pp. 520–524, Jeong and Condoravdi 2017)
 - Asturian H+L*L% vocative chant: speaker expectations violated (cf. García-Fernández 2023, p. 219)
- Many languages have other types of calls and addresses with more specific nai meaning



Physical distance

In some languages, vocative markers indicate a specific physical distance between speaker and addressee:

- Distal vocatives:
 - European (L+)H*H!-% vocative chant
 - Central Alaskan Yupik: vowel lengthening (cf. Miyaoka 2012, pp. 859–863)
 - Gua (Atlantic-Congo, Kwa, Nyo) particle xùúúù (cf. Painter 1975, pp. 19–20)
- Proximal vocatives:
 - European Portuguese ó (underspecifeid)
 - Central Alaskan Yupik: truncation (cf. Miyaoka 2012, pp. 859–863)
 - Gua (Atlantic-Congo, Kwa, Nyo) particle yèééè (cf. Painter 1975, pp. 19–20)



Specification of the addressee

- NUMBER-marking: post-nominal vocative particles -ee '-voc.s' and -ke '-voc.p' in Dinka (Nilotic), (cf. Nebel (1948, p. 102)) and Hualapai (cf. Watahomigie, Bender, and Yamamoto 1982, pp. 71–75)
- ▶ GENDER-marking: e.g. M bă(i) and F fă(i) (cf. Hill 2007, p. 2080, 2022, p. 8).
- Relationship:
 - Honorific/formal Attic Greek ō (cf. Schwyzer 1950, pp. 60–61)
 - Familiarity/informal Portuguese, *ό*, and in Modern Greek,
 vre (cf. Schwyzer 1950, pp. 60–61)
 - Children, the Korean particle (y)a (cf. Sohn (1999, pp. 341–343))
 - ▶ Gods deceased lovers, the Korean particle i(si)e (cf. Sohn 1999, pp. 341–343)



Syntactic host

- Evident, for most languages: nouns phrases
- Some language allow application of identical markers to more complex utterances: Vocative chants in many Indo-European languages.
- Allocutive markers in Basque, only to verbs (cf. Antonov 2015)



Vocative chants with complex utterances

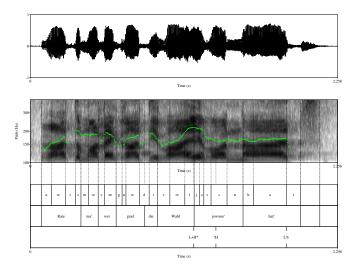
In many languages, calling contours are compatible with different speech acts/sentence types, such as German (cf. Gibbon 1976, pp. 274–287), English (cf. Ladd 1978, pp. 520–525; Jeong and Condoravdi 2017, 2018) and Hungarian (cf. Varga 2008, pp. 480–481, 492–494):

speech act	default	calling contour	
GREETINGS	Hallo ^{H*L-L%}	Hallo ^{L+H*!H-%}	'hello'
ADDRESS	Susi ^{H*L-L%}	Susi ^{L+H*!H-%}	
wh-Q	Wo bist Du?H*L-L%	Wo bist Du?L+H*IH-%	'Where are you?'
POLAR Q	Kannst Du mich hören ^{L*H-} H*	Kannst Du mich hören ^{L+H*!H-%}	'Can you hear me?'
ASSERTION	Das Essen ist fertigH*L-L%	Das Essen ist fertig ^{L+H*!H-%}	'The food is ready'.
DIRECTIVE	Komm nach HauseH*L-L%	Komm nach HauseL+H*!H-%	'Come home!'

- 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??



Vocative chants with clauses





Sentential calls - across languages I

Some grammars explicitly mention (vocative or related) markers applicable to exclamatives, imperatives and other more complex utterances, **directed at overhearers/addressees out of sight**:

- Hualapai (Yuman-Cochimí, Southern California): suffix -ó with voc, other utterances including Q (cf. example Watahomigie, Bender, and Yamamoto 1982, pp. 74-75).
- ► Kobon (Nuclear Trans New Guinea): particle *o* with voc and other utterances including (cf. Davies 1981, pp. 6, 123–124)
- ► Amele(Nuclear Trans New Guinea): *e/o* with voc and other utterances including (cf. Roberts 1987, p. 272).
- ► Tzotzil (Mayan): *e* with voc and sentential utterances (cf. Cowan 1969, pp. 21–22)
- ➤ Yorùbá (Western-Benue): ocative chant which manifests as a register raise, also with IMP *^wá* 'come.DIST'(cf. Oláwalé 2022, pp. 4–5, Manfredi 2003)



Sentential calls – across languages II

- Ngardi (Pama-Nyungan): clitic =wu predominantly with IMP and HORT, with (cf. Ennever 2021, pp. 104–105, 627)
- Warlpiri (Pama-Nyungan): 'exclamation'/'intensifyier' suffix =wu, with stress-shift to penultimate syllable EXCL, (cf. Jagst 1975, p. 44)
- Wubuy (Gunwinyguan): vocative chant lengthening of final syllable + high pitch + marker u, found with VOC, EXCL, IMP (cf. Heath 1984, p. 86)
- Morphologically marked alarm calls in Ancient Greek lo Bacchus! 'PRT Bacchus.NOM', Middle High German fiur=â 'fire=PRT' and Early New High German Feind=io 'enemy=PRT' (cf. J. L. C. Grimm 1850, p. 112)



Sentential calls – across languages III

Morphologically marked alarm calls in Ancient Greek Io Bacchus! 'PRT Bacchus.NOM', Middle High German fiur=â 'fire=PRT' and Early New High German Feind=io 'enemy=PRT' (cf. J. L. C. Grimm 1850, p. 112)



Sentential calls – across languages IV

Grammars in which vocative markers are observed to occur with IMP or EXCL, without explicitly claiming that they are adressed at listeners out of sight:

- ► Chukchi: vowel lengthening with VOC, IMP, EXCL (cf. Dunn 1999, pp. 54–55, 87, 90)
- Makah, Nitinat and Nuu-chah-nulth: Ablaut with VOC, IMP (cf. Jacobsen 1994, pp. 28, 29, 31, 34)
- Sardinian, Catalan: Truncation with VOC, IMP (cf. Floricic and Molinu 2012, 2018, pp. 272, 276)
- Nivkh: Same suffix + stress shift with VOC, IMP (cf. Gruzdeva 1998, p. 12)
- ➤ Yorùbá (Atlantic-Congo): Particle ò with VOC, DECL, IMP (cf. Brown 2010, pp. 10–12
- Gyele (Bantu): suffix o with VOC, IMP (cf. N. Grimm 2021, p. 249)

Sentential calls – across languages V

- (9) Nya jìdó! Ge mi-yaːm-ay-ng-yó?¹¹ my mother.voc.dist how 2-go-FUT-2-Q.voc.dist 'My mother! (I can't see you, but I know you are somewhere out there) Where are you going?' HUALAPAI
- (10) mùdì kí tàtò wúó¹²
 CL1-person NEG scream there-VOC-DIST
 'Nobody scream over there!' GYELE



¹¹As quoted in Watahomigie, Bender, and Yamamoto (1982, pp. 74–75) = ex. (63).

¹²As quoted in N. Grimm 2021, p. 249 = ex. (13).

Sentential calls – across languages VI

```
riga:::u!13
(11)
            mother.VOCPRT
            '(my) mother!' WUBUY
           n<sup>g</sup>ura:::u!<sup>14</sup>
(12)
           fire.VOCPRT
            'Fire!' WUBUY
           wuː=ri-n<sup>y</sup> jiː-naːːːu!<sup>15</sup>
(13)
            ???.VOCPRT
            'They are fighting' WUBUY
```



Sentential calls – across languages VII

- (14) a. A: Ban a g-an o. Ban a who QUOT do-PST.2S VOC-DIST who QUOT g-an o. Ban a g-an do-PST.2S VOC-DIST who QUOT do-PST.2S o.¹⁶
 VOC-DIST
 - B: Augi o. Augi o. Augi o.¹⁷
 Augi VOC-DIST Augi VOC-DIST Augi VOC-DIST

A: 'Who did you say [has died]?'

B: Augi. KOBON



 $^{^{17}}$ As quoted in Davies 1981, p. 6 = ex. (11c).

Afterthought

The parallel behaviour of vocatives and imperatives:

▶ Both have a close connection to the 2nd PERSON, (cf. Stavrou 2013, p. 323)



Orientation

Moro (2003, pp. 248–249), Stavrou (2013, pp. 216–219):

- intradeictic: VOC corresponds argument:
 - (15) Petro_i, ___i ela [na Petros.VOC come-IMP.2S SBJV fas]. eat.SBJV.AOR.3S 'Petros come to eat!'
- extradeictic: VOC not co-referrent with any arg
 - (16) Petro_i, I Maria_j prepei [na Petros.VOC DET.F Maria.NOM must SBJV fiji]. leave.SBJV.AOR.3S

'Petros, Maria must leave!'



M. GREEK

Interplay of phonology and morphology

Evident, for most languages: nouns phrases, for some also more complex utterances

- 1. Particles
- Concatenative extra slide on case
- 3. Non-concatenative forms
 - 3.1 base modification: vowel lengthening
 - 3.2 base modification: ablaut
 - 3.3 base modification: stress shift
 - 3.4 base modification: tonal inflection extra slide: on grammatical tone, tonal inflection
 - 3.5 reduplication
 - 3.6
- 4. Suppletion



- ▶ 1
- **2**
- ▶ 3
- **>** 4
- **5**



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



Vocative as case?

- Ancient grammars
- New approaches: case assigned by speech act projection (cf. Hill 2007)
- Dryer (2005, pp. 210–211) and Spencer (2009, pp. 185–186): 431 out of 480 languages with case employ suffixes, only 35 with prefixes
- **4**
- **5**



Case-like suffix or derivational suffix?

Motivation to classify voc-markers as case:

- If a language has case paradigm, voc-marker automatically considered as one of the cases (cf. van Driem 1987, pp. 33–52, Fähnrich 1987, pp. 47–62, 150 or Hewitt 1995, pp. 33–41)
- Languages with case paradigm can have VOC-marker that are not part of the case paradigm (cf. Nikolaeva and Tolskaya 2001, pp. 106, 340–341, 470, Gruzdeva 1998, pp. 18–22, Nedjalkov and Otaina 2013, p. 55, Fortescue 1984, pp. 205–209, 225, Dench 1994, pp. 59–60, 63–94, 100–103, 107–112, Merlan 1989, pp. 56–57, Crazzolara 1960, pp. 20–24, 140)



Arguments against VOC as case

- Lots of languages with rich case paradigm lack parallel vocative marking (Uralic, Turkic, various languages from Australia and Siberia, Central Alas)
- 2. Case-less languages with voc markers Bulgarian, many Atlantic-Congo languages
- In many languages VOC involves morphological irregularities not found with case inflection.
- 4. VOC markers often convey not-at-issue meaning
- 5. VOC not dependent from any overt syntactic head (But see Hill 2007 on particle *hai* in Romanian)
- VOC affixes often additionally involve non-concatenative processess



Vowel lenghtening

- Most frequent type non-concatenative process in the formation of vocatives
- Often result of grammaticalisation through assimilation of a post nominal voc-particle



Ablaut

Rare but found in Wakashan branch (cf. Jacobsen 1994) with ablaut from a > e and u > o among others:

(18) ²a·si·qsu → ²a·si·qso·¹⁹ niece.NOM niece.VOC 'Niece.'

NUU-CHAH-NULTH

MAKAH



¹⁸As quoted in Jacobsen (1994, p. 27) =ex. (28).

¹⁹As quoted in Jacobsen (1994, p. 29) =ex. (53).

Grammatical tone and tonal inflection

Some language families have been observed to make use of pitch to mark grammatical functions, referred to as *grammatical tone* by people working on African languages Rolle 2018, pp. 3–6, 19, 53–54.

- 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)
- Also with case marking in Ripuarian (cf. Gussenhoven and Peters 2004, pp. 255–256) and Limburgian Dutch attributive adjectives (cf. Van Oostendorp 2005, p. 108).



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



Stress-shift

Found in many language families

- Turkic Turkish Göksel and Kerslake (2005, p. 27), Uzbek Noel Aziz Hanna and Sonnenhauser 2013, p. 284
- Nivkh Gruzdeva (1998, p. 12) and Nedjalkov and Otaina (2013, p. 55)
- Some Australian languages



Truncation

Another fairly wide spread strategy

- Aleghrese Catalan in North West Sardinia (Cf. Vanrell and Cabré 2011, D'Alessandro and Oostendorp 2016, pp. 63–65, 72–78, Floricic and Molinu 2018, pp. 272–278)
- Central Alaskan Yupik
- Övdelian
- Yapese (Austronesian, Oceanic), Indonesian (Austronesian, Malayo-Chamic)



Vocative chants

Combination of several non-concatenative processes

- - **>** 2
- ▶ 3
- **4**
- **>** 5



- 1
- **2**
- ▶ 3
- **>** 4
- **>** 5



- ▶ 3



Vocative particles in European languages

language	item	optionality	autonomy	position	address	call	distance	social relation	host
Portuguese	ó	✓	_	pre-N	(√)	√		intimate	n
Asturian	á	√/—	_	pre-N	_	/	?	?	?
Catalan	eh	✓	✓	pre-N	?	/	?	?	?
	ey	✓	✓	pre-N	?	✓	?	?	?
Sardinian	5	✓	_	pre-N	_	✓		?intimate	?
Scots Gaelic	а	?	?	pre-N	✓	✓	?	? formal	?
Irish	а	?	?	pre-N	✓	✓	?	?	?
English	hey	✓	✓	pre-N	_	✓		informal	?
Viennese German	heast	✓	✓	pre-N	_	✓		intimate	n+cl
	heans	✓	✓	pre-N	_	✓		informal	n+cl
	ge	✓	✓	pre-N	_	✓		informal	n+cl
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	host
Mari	-j	✓	_	post-N	?	/	?	intimate	?
Lezgian	ja	✓	?	pre-N	✓	✓	?	?	?
Arabic	ya:	✓	✓	flexible	✓	✓	?	?	n+imp
Nivkh AD/ESD	-a/-aj	?	?	post-N	?	✓	?	?	?
Nivkh AD	-o/-ģo	?	?	post-N	?	✓	?	?	?
Mandarin	а	✓	?	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	?	?	n+cl
Kobon	0	✓	?	post-N	?	/	distal	?	n+cl
	e/me/rö	✓	?	post-N	✓	/	?	?	?
Coastal Marind	ay	?	✓	post-N	?	/	?	?	
	aw	?	✓	pre-N	?	/	?	?	?
Hualapalai	é	?	?	post-N		/	prox	?	?
	(y)é	?	?	post-N	?	/	prox	?	?
	(w)ó	?	?	post-N	_	/	dist	?	n+cl
Tzotzil	è	✓	?	post-N	✓	(√)	dist	?	n+cl
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	host
Kissi	wéì	✓	?	post-N	?	1	?	children	?
Kissi	é	✓		pre-N	?	/	?	?	?
Mani	-yò, -yè	✓	?	post-N	?	/	?	?	?
Koromfe	é	✓		pre-N	?	/	?	?	?
Baoulé	-à	_	?	post-N	?	/	?	?	?
Ewe	ée	✓	?	post-N	?	/	dist	?	?
Gwa	vèé	?	?	. ?	?	?	prox	?	?
	vèééè	?	?	?	?	?	dist	?	?
	xùúúù	?	?	?	?	?	dist	?	?
Yorùbá	ò	✓	✓	post-N		/	?	?	n+imp
ljo	-àa	✓	?	post-N	?	/	?	?	? .
Éton	á	✓	?	pre-N	?	/	?	?	?
Gyele	-ò	✓	?	post-N	?	/	prox	?	?
•	-ó	✓	?	post-N	?	/	dist	?	n+cl
6aka	-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	?	1	dist	singular	?
	-ke	✓	_	post-N	?	✓	dist	plural	?
Tarifiyt Berber	a-	?	?	pre-N	?	1	?	?	?
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	host
Czech		_	stemfinal	√	√			n
Polish		✓	stemfinal	✓	/	?	formal	n
Croatian		✓	stemfinal	✓	/	?	?	n
Romanian	-e	✓	stemfinal	✓	✓	?	informal	n
Bulgarian	-0	✓	stemfinal	✓	✓	?	intimate	n
	-e	✓	stemfinal	✓	✓	?	intimate	
Modern Greek		_	stemfinal	✓	✓	?	?	n
Lithuanian		?	stemfinal	✓	✓	?	?	
Urdu		?√	stemfinal	✓	✓	?	?	n
Hindi		?	stemfinal	✓	✓	?	?	
Georgian	-0	√-	stemfinal	✓	√			n
Limbu	-e	?√	stemfinal	✓	✓	?	?	n
Ket	-á/-ó	✓	stemfinal	?	✓	prox	?	n
	-á/-ó	✓	stemfinal	?	✓	distal	?	n
Udihe	-i	✓	stemfinal	✓	✓	?	intimate	
	-e	✓	stemfinal	✓	✓	distal	?	
Itelmen	-е/-а	✓	stemfinal	✓	✓		?	n
Martuthunira	-yi	?	stemfinal	?	✓	?	?	
Mangarrayi	-y	✓	stemfinal	?	✓	?distal	?	n
Nez Perce	-е	?	stemfinal	?	✓	?	intimate-jun	n
	-e?	?	stemfinal	?	✓	?	intimate-sen	n
Central Alaskan Yupik	-mi	?	stemfinal	?	✓	?	formal	n
Basque	-n	✓	post-v	✓		?	ADDR.F	decl
	-k	✓	post-v	✓	_	ADDR.M	archaic	decl
	-sy	✓	post-v	✓	_	formal	archaic	decl

Table: Vocative suffixes



Non-concatenative vocative realisations I

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

Table: Non-concatenative vocative forms I



Non-concatenative vocative realisations II

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

Table: Non-concatenative vocative forms II



Exclamatives and vocatives

- ▶ Identical marking in many languages: Svennung (1958) and Hill (2007, pp. 2078, 2080–2082, 2086–2090, 2092–2098) for Romanian, Abreu de Carvalho (2013, p. 53) for European Portuguese, Stavrou (2013, pp. 311–315) for Modern Greek, Akinlabí and Liberman (2000, pp. 43–44) and Oláwalé (2022, p. 2) for Yorùbá, Dunn (1999, pp. 87, 90) for Chukchi and Miyaoka (2012, pp. 794–798)
- **2**
- **▶** 3
- On the other hand, both vocatives and exclamatives reference a salient expectation within the shared belief space of the speaker and the addressee. This is a well-know property of exclamatives (cf. Michaelis and Lambrecht 1996, pp. 220, 238–244 and Zanuttini and Portner 2003, pp. 49–56), but it is relevant for certain uses of vocatives as well, including the (L+)H*!H-% vocative chant in most European languages (cf. Ladd 1978)



Clausal vocatives

@@@add Haddican 2018, Hualde and Ortiz de Urbina (2003, pp. 242–246) Basque allocutive clitics that attach to clauses/verbs, coding the sex of the addressee!! CAN THEY ACT AS VOCATIVES

German (cf. Gibbon 1976, pp. 274–287), English (cf. Ladd 1978, pp. 520-525; Jeong and Condoravdi 2017, 2018) and Hungarian (cf. Varga 2008, p. 480); the lengthening of the final vowel, which is also found with exlamatives and imperatives in Chukchi (cf. Dunn 1999, pp. 54-55, 87, 90), the identical ablaut pattern affecting the (first or) last vowel in imperative verb when called out in Makah, Nitinat and Nuu-chah-nulth (cf. Jacobsen 1994, pp. 28, 29, 31, 34). Other examples include truncation, which also applies to imperatives in Sardinian and Catalan (cf. Floricic and Molinu 2012, 2018, pp. 272, 276); phonologically similar suffixes for vocatives and imperatives that cause stress shift in Nivkh (cf. Gruzdeva 1998, p. 12); and the use of particles such as Yorùbá ò frequently found with declarative clauses and imperatives (cf. Brown 2010, pp. 10-12) and, as



Five key findings

- The marking of calls and addressess is particularly prone to atypical morphological strategies (cf. Spencer 2009, p. 186 and Floricic and Molinu 2018, pp. 273–278)
- 2. Systematic parallels exist between vocatives and exclamatives
 - 2.1 Reference to salient expectations in shared belief space
 - 2.2 Identical forms of marking e.g. Yorùbá, Chuckchi, Central Alaskan Yupik
- 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))
- 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



five key findings

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



summary tendencies

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. (iii) (iv) Particles are more commonly used to convey the social

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superiority of the speaker rather than that of the addressee. However, contrary to Hill's (2022, pp. 4, 12) generalisation, this

vocative as case

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



Different forms of vocatives

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

```
OMA: [friː. də. ˈriː.
                           (23)
                                MAFALDA: Ó
           L+ H*
                                           VOC
   kə]
                                    Marina
   !H-%
                                    Marina
                                MARINA: simH-%
FRIEDERIKE: [jax.
             L+H*
                                          yes
   !H-%
```

Barboro. (24)TOMAS: Barbora.voc

ioH-%/ anoH-% BARBORA: yes yes



???Varieties of vocatives

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

- SPKR not sure whether they have the ADDR's attention
- SPKR has some expectation p_{exp} about the outcome (reference to routine/stereotypized situation/expectable outcome/familiarity, cf. Ladd 1978, pp. 520–524)
- ► SPKR expresses that there is some social proximity between the them and the ADDRESSEE *c*_{fam}
- 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:

- Sóskuthy and Roettger (2020, pp. 141–143, 150–153): intonation contour and prosodic shape of vocatives itself are not a morpheme yet
 - 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)



Concatenative vs. Non-concatenative realisations of the vocative

Claim here: vocatives can be realised in several ways.

- As a concatenative morpheme (cf. regular PAST tense stay vs. stay-ed)
 - Case-like affix: e.g. Czech, Georgian
 - Particle: e.g. Arab, Portuguese
- 2. As a non-concatenative morpheme (cf. irregular PAST tense *go* vs. *went*)
 - intonation contour

HaspelmathSims2010 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).



Vocatives as case?

Languages which make use of onymic articles such as Central Catalan (cf. Borràs-Comes, Sichel-Bazin, and Prieto 2015, p. 70), German (cf. Schaden 2010, p. 179) and Portuguese, systematically ban them from vocatives

- (25) a. * La Maria, menja una mandarina!
 - b. * Die Mimi, pass bitte auf
 - c. * Ó a Maria, anda cá.
 - Nouns to which vocatives attach are not canonical NPs
 - They appear to be embedded in layers of other types of phrases turning the into addresses
 - ?But Czech vocative suffix in Barbaro seems to re-syllabification, indicating no phonological boundary
 - Very different phenomenon than canonical case (cf. Daniel and Spencer 2009, 626, ??), but nevertheless tight relation between N + vocative



Abreu de Carvalho, Ana Sofia (2013). "An overview of vocatives in European Portuguese". In: *Linguistica Atlantica* 32, pp. 42–58.

Akinlabí, Akíbíyì and Mark Yoffe Liberman (2000). "The tonal phonology of Yorùbá clitics". In: Clitics in phonology, morphology and syntax. Ed. by Beadtrice Gerlach and Janet Grijzenhout. Amsterdam: John Benjamins, pp. 31-62. DOI: 10.1075/la.36.04aki.

Antonov, Anton (Jan. 2015). "Verbal allocutivity in a crosslinguistic perspective". In: *Linguistic Typology* 19.1, pp. 55–85. DOI: 10.1515/lingty-2015-0002.

Asher, R. E. and T. C. Kumari (2013). *Malayalam*. Descriptive Grammars. London: Routledge.

Bartels, Christine (1999).
The Intonation of English
Statements and Questions.
A Compositional
Interpretation. New York:
Garland.



Beckman, Mary E. and Janet B. Pierrehumbert (1986). "Intonational structure in English and Japanese". In: *Phonology Yearbook* 3, pp. 255–309. DOI: 10.1017/S095267570000066x.

Bernstein, Judy B. (Nov. 2008). "Reformulating the Determiner Phrase Analysis". In: Language and Linguistics Compass 2.6, pp. 1246–1270. DOI: 10.1111/j.1749-818x .2008.00091.x.

Bildhauer, Felix (2007).

"Representing Information
Structure in an HPSG

Grammar of Spanish". PhD thesis. Bremen: Universität Bremen.

Bobaljik, Jonathan David (2008). "Missing persons: a case study in morphological universals".

In: The Linguistic Review 25, pp. 201–230. DOI: 10 .1515/TLIR.2008.005.

Bolinger, Dwight L. (1957).
Interrogative Structures of
American English.
Publications of the
American Dialect Society
28. Tuscaloosa, AL:
University of Alabama
Press.



Bolinger, Dwight L. (1989).

Intonation and its Uses.

Stanford, CA: Stanford
University Press.

Borràs-Comes, Joan, Rafèu Sichel-Bazin, and Pilar Prieto (2015). "Vocative intonation preferences are sensitive to politeness factors". In: Language and Speech 58.1, pp. 68-83. DOI: 10.1177/002383091456 5441.

Brown, Jason (2010).

"Evidentiality and polarity in Yorùbá". In: Evidence from Evidentials. Ed. by Tyler Peterson and

Uli Sauerland. Vol. 28. UBC Working Papers in Linguistics. Vancouver: University of British Columbia, pp. 9–28. URL: https://lingpapers.s

ites.olt.ubc.ca/file s/2018/01/EvidenceFr omEvidentials.pdf.



Condoravdi, Cleo and Sunwoo Jeong (2018). "Imperatives and intonation: the case of the down-stepped level terminal contour". In: West



Coast Conference on Formal Linguistics (WCCFL) 35. Ed. by William G. Bennet, Lindsay Hracs, and Dennis Ryan Storoshenko. Somerville, Mass: Cascadilla Proceedings Press, pp. 214–223.

Cowan, Marion M. (1969).

Tzotzil grammar.

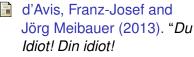
Oklahoma: Summer
Institue of Linguistics.

Crazzolara,
Joseph Pasquale (1960). A
study of the Logbara
(Ma'di) language.
Grammar and vocabulary.

London: Oxford University Press (OUP).

D'Alessandro, Roberta and Marc van Oostendorp (Nov. 2016). "When imperfections are perfect: Prosody, phi-features and deixis in Central and Southern Italian vocatives".

In: Romance Languages and Linguistic Theory 10. John Benjamins Publishing Company, pp. 61–82. DOI: 10.1075/rllt.10.04da 1.



Pseudo-vocative



constructions and insults in German (and Swedish)". In: Vocative! Addressing between system and performance. Ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna. Trends in Linguistics Studies and Monographs 261. Berlin: Mouton de Gruyter, pp. 189-217. DOI: 10.1515/978311030417 6.189.

Daniel, Michael and Andrew Spencer (2009). "The vocative – an outlier case". In: *The Oxford* Handbook of Case. Ed. by Andrej Malchukov and Andrew Spencer. Oxford: Oxford University Press, pp. 626–634. DOI: 10.1093/oxfordhb/978 0199206476.013.0044.



"Romanian call contours". In: Revue Roumaine de Linguistique 30.4, pp. 317–320.



Davies, John (1981). Kobon. Amsterdam: North Holland Publishing Company.



Dehé, Nicole (Sept. 2009). "Clausal parentheticals, intonational phrasing, and prosodic theory". In:



Journal of Linguistics 45.3, pp. 569-615. DOI: 10.101 7/s002222670999003x. URL: http://dx.doi.org/10.1017/S002222670999003x.

Dench, Alan Charles
(1994). Martuthunira. A
language of the pilbara
region of Western
Australia. Pacific
linguistics, Series C 125.
Canberra: Australian
National University.

Droste, Pepe and
Susanne Günthner (2021).
"Enacting 'Being with You':
Vocative uses of *du* ('you')
in German everyday

interaction". In: *Pragmatics* 31.1, pp. 87–113. DOI: 10.1075/prag.19030.d ro.

Dryer, Matthew S. (2005). "Position of Case Affixes". In: *The World Atlas of Language structures*. Ed. by Martin Haspelmath et al. Oxford: Oxford University Press (OUP), pp. 210–213.

Dunn, Michael John (1999). "A grammar of Chukchi". PhD thesis. Australian National University.

Ennever, Thomas (Oct. 2021). A Grammar of



Ngardi: As spoken by F. Tjama, M. Yinjuru Bumblebee, D. Mungkirna Rockman, P. Yalurrngali Rockman, Y. Nampijin, D. Yujuyu Nampijin, M. Mandigalli, K. Padoon, P. P. Napangardi, P. Lee, N. Japaljarri, M. Moora, M. Mudgedell and P. Smith. Mouton Grammar Library 92. Berlin: De Gruyter. DOI: 10.1515/978311075243 4. URL: http://dx.doi.org/10 .1515/9783110752434.

Espinal, Teresa M. (Dec. 1991). "The Representation of Disjunct

Constituents". In: Language 67.4, pp. 726–762. DOI: 10.2307/415075. URL: http://dx.doi.org/10 .2307/415075.

— (2013). "On the structure of vocatives". In: Vocative! Addressing between system and performance. Ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna. Trends in Linguistics Studies and Monographs 261. Berlin: Mouton de Gruyter, pp. 109-132.



Fähnrich, Heinz (1987). Kurze Grammatik der georgischen Sprache. Leipzig: VEB Verlag Enzyklopadie.

Fink, Robert O. (Jan. 1972). "Person in Nouns: Is the Vocative a Case?" In: The American Journal of Philology 93.1, pp. 61-68. DOI: 10.2307/292901.

Floricic, Franck and Lucia Molinu (2012). "Romance monosyllabic imperatives and markedness". In: Monosyllables. Ed. by Thomas Stolz, Nicole Nau, and Cornelia Stroh.

Beihefte STUF 12. Berlin: Akademie Verlag, pp. 149-172.



— (Dec. 2018). "Chapter 18. Are Sardinian vocatives perfectly regular?" In: Structuring Variation in Romance Linguistics and Beyond. Ed. by Mirko Grimaldi et al. Linguistik Aktuell/Linguistics Today 252. Amsterdam: John Benjamins Publishing Company, pp. 271–282. DOI: 10.1075/la.252.c 18flo.



- Fortescue, Michael (1984). West Greenlandic. Kent: Croom Helm.
- Frajzyngier, Zygmunt (May 2012). A Grammar of Wandala. Mouton Grammar Library 47.
 Berlin: De Gruyter. DOI: 10.1515/9783110218411.
 URL:
 - http://dx.doi.org/10 .1515/9783110218411.
- García-Fernández,
 Eduardo (2023). "The
 intonational form of
 Asturian vocatives and
 their contribution to
 utterance meaning".
 PhD thesis. Amherst:

- University of Massachusetts Amherst.
 DOI: 10.7275/32559232.
- Gibbon, Dafydd (1976).

 Perspectives of intonation analysis. Bern: Lang.
- Goffman, Erving (Dec. 1976). "Replies and responses". In: *Language in Society* 5.3, pp. 257–313. DOI: 10.101
- 7/s0047404500007156. URL: http://dx.doi.org/10.1017/s0047404500007156.
- Göksel, Aslı and
 Celia Kerslake (Aug.
 2005). Turkish: A
 Comprehensive Grammar.



Routledge Comprehensive Grammars. London:
Routledge. DOI: 10.4324
/9780203340769.

/9780203340769. Göksel, Aslı and Markus A. Pöchtrager (2013). "The vocative and its kin: marking function through prosody". In: Vocative! Addressing between system and performance. Ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna. Trends in Linguistics Studies and Monographs 261. Berlin: Mouton de Gruyter, pp. 87–108. DOI:

10.1515/978311030417 6.87.

Goodwin, Charles (1982).

Conversational

organization. Interaction

between and hearers.

Language, thought, and
culture. Advances in the
Study of Cognition. New

York: Academic Press.

Grimm, Jacob Ludwig Carl (1850). "Über das Feuergeschrei". In: *Monatsberichte* 21. März, pp. 111–115.

Grimm, Nadine (2021). A grammar of Gyeli. en. Comprehensive Grammar Library. Berlin: Language



Science Press. DOI: 10.52 81/ZENODO.4737370.

Gruzdeva, Ekatarina (1998). *Nivkh*. Languages of the World/Materials 111. Lincom Europa.

Gussenhoven, Carlos (1984). On the Grammar and Semantics of Sentence Accents.

Dordrecht: Foris.

— (2004). The phonology of tone and intonation.

Research Surveys in Linguistics. Cambridge:
Cambridge University
Press. DOI: 10.1017
/CB09780511616983.

Gussenhoven, Carlos and Jörg Peters (Aug. 2004). "A tonal analysis of Cologne Schärfung". In: *Phonology* 21.2, pp. 251–285. DOI: 10.1017/s09526757040 00211.

Haddican, Bill (Sept. 2018). "The syntax of Basque allocutive clitics". In: Glossa: a journal of general linguistics 3.1. DOI:

10.5334/gjgl.471. URL: http://dx.doi.or g/10.5334/gjgl.471.

Aditi Lahiri (1992).
"Durationally specified intonation in English and

Hayes, Bruce and



Bengali". In: *Proceedings* of the 1990 Wenner Gren Center Conference on Music, Language, Speech and the Brain. Ed. by Rolf Carlson. Lennart Nord, and Johan Sundberg. Houndsmill: Macmillian. pp. 78–91.

Heath, Jeffrey (1978).

Ngandi grammar, texts,
and dictionary. Australian
Institute fo Aboriginal
Studies.

 — (1984). Functional grammar of Nunggubuyu. Australian Institute fo

Aboriginal Studies.

— (Jan. 2015). "Dogon noncompositional constructional tonosyntax".

In: Journal of African
Languages and Linguistics
36.2. DOI: 10.1515/jall
-2015-0010. URL: https
://doi.org/10.1515%2

Fjall-2015-0010.

Heath, Jeffrey and

Laura McPherson (2013). "Tonosyntax and reference restriction in Dogon NPs".

In: Language 89.2, pp. 265–296. DOI: 10.135 3/lan.2013.0020.

Hewitt, George B. (1995).

Georgian. A structural
reference grammar.



London Oriental and African Language Library 2. Amsterdam: John Benjamins Publishing Company.

Hill, Virginia (Dec. 2007).

"Vocatives and the pragmatics—syntax interface". In: Lingua 117.12, pp. 2077–2105.

DOI: 10.1016/j.lingua .2007.01.002.

— (2014). Vocatives. How syntax meets with pragmatics. Leiden: Brill.

— (July 2022). "The syntactization of kinship in vocative phrases". In: Volume 77.1, pp. 1–24. **DOI**: 10.16995/glossa .6557.

Hualde, José Ignacio and Jon Ortiz de Urbina (Dec. 2003). A Grammar of Basque. Mouton Grammar Library 26. Berlin: Mouton de Gruyter. DOI: 10.1515/9783110801118. URL: http://dx.doi.org/10.1515/9783110801118.

Jacobsen, William H. Jr. (1994). "Nootkan vocative vocalism and its implications". In: Sound Symbolism. Ed. by Leanne Hinton, Johanna Nichols, and John Ohala. Cambridge:



Cambridge University Press (CUP), pp. 23–39. Jagst, Lothar (1975). "Ngardilpa (Warlpiri)

Jagst, Lothar (1975). "Ngardilpa (Warlpiri) Phonology". en. In: Papers in Australian Linguistics No. 8. Ed. by M. Sharpe, Lothar Jagst, and D. Birk. Pacific Linguistics. The Australian National University, pp. 21–57. DOI: 10.15144/PL-A39.21. URL: http://sealang.n et/archives/pl/pdf

/PL-A39.21.pdf.

Jeong, Sunwoo and
Cleo Condoravdi (2017).

"Imperatives with the calling contour". In:

Berkeley Linguistics Society (BLS) 43. Ed. by Julia Nee et al. Vol. 1. Somerville, Mass: Cascadilla Proceedings Press, pp. 185–210. Kieviet, Paulus (2017). A

Kieviet, Paulus (2017). A Grammar Of Rapa Nui. Studies in Diversity

Linguistics 12. Berliln: Language Science Press. DOI: 10.5281/ZENODO.2

35525. URL:

https://zenodo.org/record/235525.

Klein, Ewan (2000).
"Prosodic Constituency in HPSG". In: Grammatical Interfaces in HPSG. Ed. by



Ronnie Cann, Claire Grover, and Philip Miller. Vol. 8. Studies in Constraint-Based Lexicalism. Stanford: CSLI Publications, pp. 171–203. Ladd. Robert D. (1978).

Ladd, Robert D. (1978).

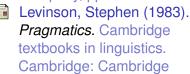
"Stylized intonation". In:

Language 54.3,
pp. 517–540. DOI:

http://www.jstor.org
/stable/412785.

Leech, Geoffrey N. (1999). "The distribution and function of vocatives in American an British English conversation". In: Out of corpora. Ed. by Hilde Hasselgård and

Signe Oksefjell.
Amsterdam: John
Benjamins Publishing
Company, pp. 107–118.



University Press.
Li, N. Charles and
Sandra Annear Thompson
(1989). Mandarin Chinese.
A Functional Reference
Grammar. Berkeley:
University of California
Press.

Liberman, Mark Yoffe (1975). "The intonational system of English".



PhD thesis. Cambridge, Mass.: Massachusetts Institute of Technology. URL: http://hdl.handl e.net/1721.1/27376.

Longobardi, Giuseppe (1994). "Reference and proper names: A theory of N-movement in syntax and logical form". In: *Linguistic Inquiry* 25.4, pp. 609–665. URL: http://www.jstor.org/stable/4178880.

Macaulay, Monica (1996).

A grammar of Chalcatonga

Mixtec. University of

California Publications in

Linguistics. Berkeley:

University of California Press.

MacKinnon, Roderick (1971). Teach yourself Gaelic. London: Hodder and Stoughton.

Makhad, Hassan (2024). "Tashlhiyt Berber DP assembled". In: The Handbook of Berber Linguistics. Ed. by Alirezaa Korangy and Karim Bensoukas. Springer Handbooks in Language and Linguistics. Singapore: Springer Nature, pp. 494-515. DOI: 10.1007/978-981-99-5690-6. URL: http://dx



.doi.org/10.1007/978 -981-99-5690-6.

Manfredi, Victor (2003). Afro-American Studies 90r (Yorùbá). Class handout 2003/2004, Harvard University.

McPherson, Laura and Jeffrey Heath (Aug. 2015). "Phrasal grammatical tone in the Dogon languages". In: Natural Language & Linguistic Theory 34.2, pp. 593–639. DOI: 10.1007/s11049-015-9309-5.

Merlan, Francesca (1989).

Mangarayi. Vol. 4. Lingua
Descriptive Studies.
London: Routledge. DOI:

10.1515/978311087137 1.

Michaelis, Laura A. and Knud Lambrecht (June 1996). "Toward a Construction-Based Theory of Language Function: The Case of Nominal Extraposition". In: Language 72.2, p. 215.

DOI: 10.2307/416650.

Miyaoka, Osahito (2012).

A grammar of Central

Alaskan Yupik. Mouton

Grammar Library 58.

Berlin: De Gruyter Mouton.

DOI: 10.1515/97831102

78576.



Moro, Andrea (2003).

"Notes on vocative case. A case study in clause structure". In: Romance

Languages and Linguistic

Theory 2001. Ed. by Josep Quer et al. Amsterdam: John Benjamins Publishing Company, pp. 247–262.

Ndayiragije, Juvénal, Emmanuel Nikiema, and Parth Bhatt (2012). "The Augment in Kirundi: When Syntax Meets Phonology".

In: Selected proceedings of the 42nd Annual Conference on African Linguistics: African Languages in Context.
Ed. by Michael R. Marlo et al. Cascadilla
Proceedings Project,
pp. 112–121.

Nebel, Arturo (1948).

Dinka Grammar

(Rek-Malual Dialect) with

Texts and Vocabulary.

Verona: Missioni Africane.

Nedjalkov, Vladimir P. and Galina A. Otaina (Sept. 2013). A Syntax of the Nivkh Language: The Amur dialect. Studies in Language Companion Series 139. Amsterdam: John Benjamins Publishing



Company. DOI: 10.1075/slcs.139.

Nespor, Marina and Irene Vogel (2007).

Prosodic Phonology.

Vol. 28. Studies in generative grammar.

Berlin: Mouton de Gruyter.

Nikolaeva, Irina and Maria Tolskaya (Dec. 2001). A Grammar of Udihe. Mouton Grammar Library 22. Berlin: De Gruyter Mouton. DOI: 10.1 515/9783110849035.

Noel Aziz Hanna, Patrizia and Barbara Sonnenhauser (2013). "Vocatives as

functional performance structures". In: *Vocative! Addressing between system and performance*. Ed. by

Barbara Sonnenhauser and Patrizia Noel Aziz Hanna. Trends in Linguistics Studies and Monographs 261. Berlin: Mouton de Gruyter, pp. 283–304. DOI: 10.151 5/9783110304176.283. Oláwalé, Rukayat (2022).

"Une étude perceptive de l'influence du contexte pragmatique sur l'expression du vocatif en Yorùbá". In: Actes du



congrès annuel de l'Association canadienne de linguistique. URL:
https://cla-acl.ca/pdfs/actes-2022/Olawale-CLA-2022.pdf.

Painter, Colin (1975). "/m hm/, /!m !m/ and some forms of 'yes' and 'no' in Gwa". In: *Anthropological Linguistics* 17.1, pp. 19–23.

Pierrehumbert, Janet B. and Julia Hirschberg (1990). "The meaning of intonational contours in the interpretation of discourse". In: Intentions in Communications. Ed. by Philip R. Cohen,

Jerry L.. Morgan, and Martha E. Pollack. Cambridge: MIT Press, pp. 271–311.



Portner, Paul (Nov. 2007). "Imperatives and modals". In: *Natural Language Semantics* 15.4.





Rennison, John (2013). Koromfe. Descriptive Grammars. London: Routledge.



Roberts, John R. (1987).

Amele. Beckenham, Kent:
Croom Helm.



Rolle, Nicholas Revett (2018). "Grammtatical



tone: Typology and theory". PhD thesis. Berkeley: University of California
Berkeley. URL: https://escholarship.org/uc/item/8907602d.

Saeed, John I. (2007).
"Somali morphology". In:
Morphologies of Asia and
Africa. Ed. by
Alan S. Kaye. Winona
Lake, Indiana:
Eisenbrauns, pp. 547–586.

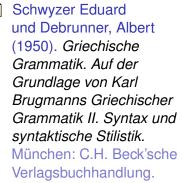
Schaden, Gerhard (2010). "Vocatives: a note on addressee-management". In: *University of Pennsylvania Working Papers in Linguistics 16*,

pp. 176-185. URL:
http://repository.up
enn.edu/pwpl/vol16/i
ss1/20.

Schegloff, Emanuel Abraham (1968). "Sequencing in conversational openings". In: American Anthropologist 70, pp. 1075–1095.

— (1972). "Sequencing in conversational openings". In: Directions in sociolinguistics. Ed. by John J. Gumperz and Dell Hymes. New York: Holt, Rinehart and Winston, Inc., pp. 346–380.





Senft, Gunter (Dec. 1986).

Kilivila: The Language of the Trobriand Islanders.

Mouton Grammar Library

3. Berlin: De Gruyter

Mouton. DOI: 10.1515/97

83110861846. URL:

http://dx.doi.org/10

.1515/9783110861846.

Serbat, Guy (1996).

Grammaire fondamental
du Latin. Vol. 6. Louvain:
Éditions Peeters.

Slocum, Poppy (2016). "The syntax of address". PhD thesis. Stony Brook, NY: Stony Brook University.

Sohn, Ho-Min (1999). The Korean language.
Cambridge: Cambridge
University Press (CUP).

Sonnenhauser, Barbara and Patrizia Noel Aziz Hanna (2013).

between system and

"Introduction: Vocative!" In: Vocative! Addressing



performance. Ed. by Barbara Sonnenhauser and Patrizia Noel Aziz Hanna. Trends in Linguistics Studies and Monographs 261. Berlin: Mouton de Gruyter, pp. 1–25. DOI: 10.1515/9 783110304176.1.

Sóskuthy, Márton and Timo B. Roettger (Aug. 2020). "When the tune shapes morphology: The origins of vocatives". In: Journal of Language Evolution 5.2, pp. 140–155. DOI: 10.1093/jole/lza a007. URL: https://doi

.org/10.1093%2Fjole %2Flzaa007.

Spencer, Andrew (2009).

"Case as a morphological phenomenon". In: The Oxford Handbook of Case. Ed. by Andrej Malchukov and Andrew Spencer.

Oxford: Oxford University Press, pp. 185–199. DOI: 10.1093/oxfordhb/978 0199206476.013.0013.

Stavrou, Melita (Nov. 2013). "About the Vocative". In: *The Nominal Structure in Slavic and Beyond*. Ed. by Lilia Schürks, Anastasia Giannakidou.



and Urtzi Etxeberria. Studies in Generative Grammar 116. Berlin: Mouton de Gruyter, pp. 299–342. DOI: 10.151 5/9781614512790.299.

Svennung, Josef (1958).

Anredeformen:
vergleichende
Forschungen zur indirekten
Anrede in der dritten
Person und zum Nominativ
für den Vokativ. Uppsala:
Almqvist & Wiksell.

Szabolcsi, Anna (1994).

"The noun phrase". In: *The*syntactic structure of

Hungarian. Ed. by

Ferenc Kiefer and

Katalin É. Kiss. Syntax and Semantics 27. New York: Academic Press, pp. 179–274.

Truckenbrodt, Hubert (2012). "Semantics of intonation". In: Semantics.

An International Handbook of Natural Language

Meaning. Vol. 3. Berlin:
Walter de Gruyter,
pp. 2039–2969.

— (2013). "Satztyp,Prosodie und Intonation".

In: Satztypen des
Deutschen. Ed. by
Jörg Meibauer,
Markus Steinbach, and



Hans Altmann, Berlin: De Gruyter, pp. 317–337.

van Driem, George (1987). A grammar of Limbu. Mouton Grammar Library 4. Berlin: Mouton de Gruyter. DOI: 10.1515/97 83110846812.

Van Oostendorp, Marcel (Dec. 2005). "Expressing Inflection Tonally". In: Catalan Journal of Linguistics 4.1. pp. 107-126. DOI: 10.556 5/rev/catjl.115.

Vanrell, Maria del Mar and Teresa Cabré (2011). "Troncamento e

intonazione dei vocativi in

Italia centromeridionale". In: Contesto comunicativo e variabilità nella produzione e percezione della lingua, Atti el 7 convegno AISV(26-28 January 2011, Lecce). Ed. by Barbara Gili Fivela. Antonio Stella Garrapa, and Mirko Grimaldi.



Varga, László (2008). "The calling contour in Hungarian and English". In: Phonology 25,

pp. 469-497. DOI: 10.101



Watahomigie, Lucille J., Jorigine Bender, and Akira Y. Yamamoto (1982).



Hualapai reference grammar. Los Angeles: American Indian Studies Center UCLA.

Zanuttini, Raffaella and Paul Portner (2003).

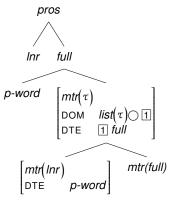
"Exclamative Clauses: At the Syntax-Semantics Interface". In: Language 79.1, pp. 39–81. DOI: 10.1 353/lan.2003.0105.

Zwicky, Arnold (1974). ""Hey, Whatsyourname"".

In: Papers from the Tenth Regional Meeting, Chicago Linguistic Society. April 19-21, 1974. Ed. by Michael La Galy, Robert A. Fox, and Bruck Anthony. Chicago: Chicago Linguistic Society, pp. 787–801. URL: https://web.stanford .edu/~zwicky/hey-wha tsyourname.pdf.

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:

```
(26) 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
```



How to represent intonation contours?

Varga (2008)

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



Conversational rule for Adjacency Pair Summons/Answers

Already suggested by Schegloff (1972, pp. 357–358): Summons (Initial Addresses) come in Adjacency Pairs

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

