The typology of vocative formation

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Stress-shift
Truncation
Vocative chants
Reduplication
Suppletion

Slides

https://dkaramasov.github.io/mache/assets/pdf/25-the-typology-of-vocative-formation-ENAPL.pdf

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Article

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Goal*

- Continuum of vocative marking: complex vocative chants to affixes.
- All these markers are morphemes. They form meaning pairs (cf. Haspelmath and Sims 2010, pp. 2, 11, 41)
- Range of realisation: (Almost) the whole spectrum of concatenative and non-concatenative morphological processes described in Haspelmath and Sims (2010, pp. 34–39).
- which may convey the following aspects:
  - Mark nouns as 2nd PERSON
  - Description of the relationship between SPKR and ADDR
  - Message is addressed at referent not ratified as speech participant overhearer
  - Other not-at-issue meaning regarding shared expectations
- Based on 9 parameters: comparison of about 150 markers and show their close relatedness

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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.

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Roles in Utterance situations*

- Goffman (1976, p. 260), Goodwin (1982, pp. 3–6): Three types of listeners.
  1. Overhearer.
  2. Ratified listener.
     - 2.1 Directly addressed.
     - 2.2 Not specifically addressed, but part of a group of discussion participants.

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 *yaː* Arabic in can occur as an **independent utterance** with an **independent intonation phrase** ˏ
- 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)

Three positions*

Leech (1999, pp. 107–108, 114–115), Stavrou (2013, pp. 323–329) and López and Schmid (2022, pp. 78–80) 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)

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Initial vocatives*

(3) [$_{VOC}$ Ty n'ivɣ-a] t'a ykyn-doχ
this man-VOC NEG elder.brother-DAT/ADD
t'axta-ja.[1]
be.angry-IMP
'This man, don't be angry at [your] elder brother.' NIVKH

(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

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

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

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' HUNGARIAN

b. * 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

[8] As quoted in Szabolcsi (1994, p. 215) = ex. (84)
[9] As quoted in Szabolcsi (1994, p. 215) = ex. (86)
[10] As 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].

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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 *yèéééè* (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, *ó*, 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)

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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)

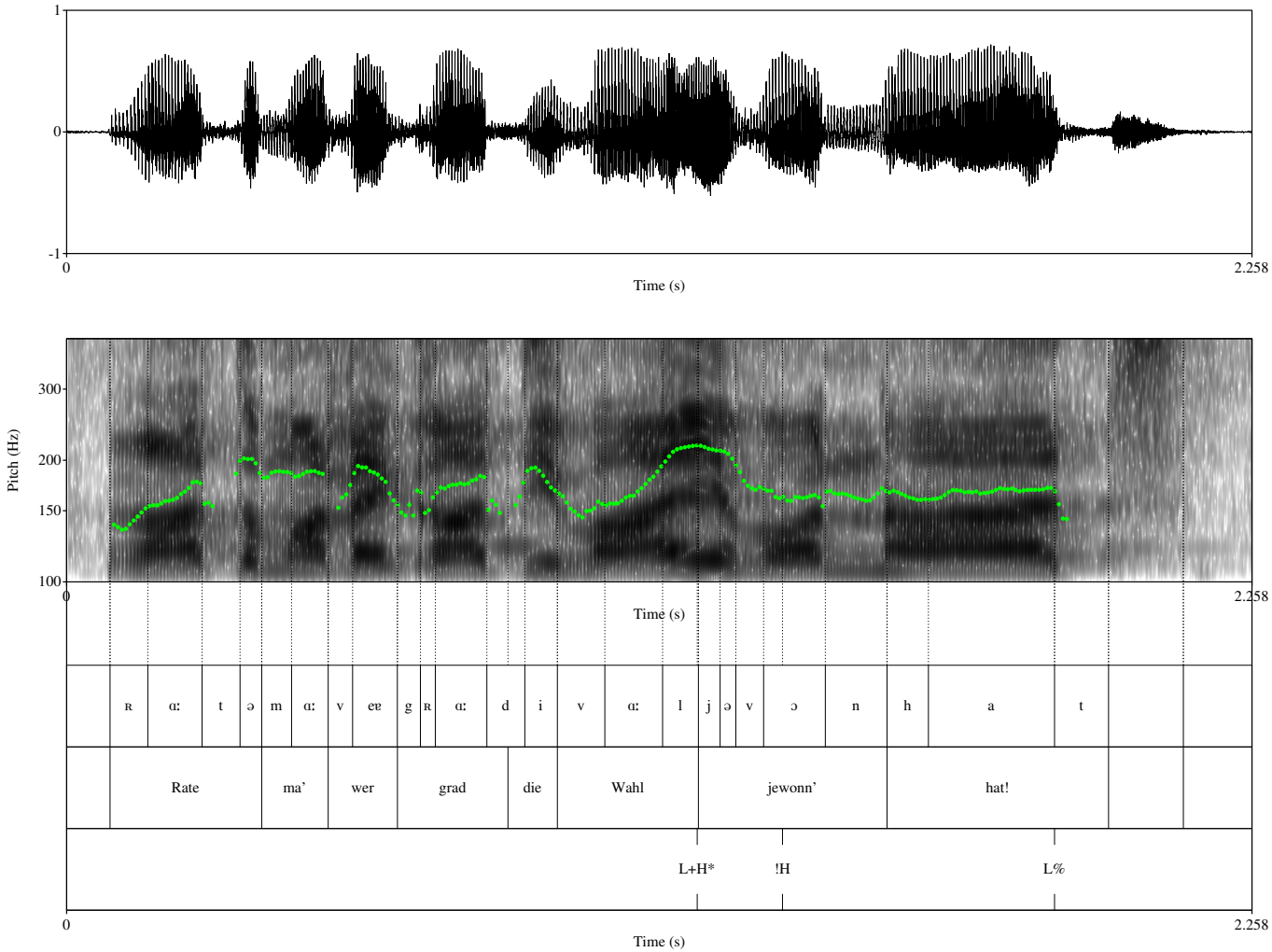
Vocative chants with complex utterances*

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?*$^{L+H*!H-\%}$	'Where are you?'
POLAR Q	*Kannst Du mich hören*$^{L*H-\hat{}H\%}$	*Kannst Du mich hören*$^{L+H*!H-\%}$	'Can you hear me?'
ASSERTION	*Das Essen ist fertig*$^{H*L-L\%}$	*Das Essen ist fertig*$^{L+H*!H-\%}$	'The food is ready'.
DIRECTIVE	*Komm nach Hause*$^{H*L-L\%}$	*Komm nach Hause*$^{L+H*!H-\%}$	'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



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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 *ˆwá* 'come.DIST'(cf. Ọláwalé 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 *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)

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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-ya꞉m-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 tàtɔ́ wúó[12]
CL1-person NEG scream there-VOC-DIST
'Nobody scream over there!' GYELE

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

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

Sentential calls – across languages VI*

(11) riga:::u![13]
mother.VOCPRT
'(my) mother!' WUBUY

(12) n^{g}ura:::u![14]
fire.VOCPRT
'Fire!' WUBUY

(13) wu:=ri-n^{y} ji:-na:::u![15]
???.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. 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!' M. GREEK

- **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
2. 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
4. Suppletion

Particles

- Most common form of marking
- Tend to convey not-at-issue meaning, specification of the relation
- Tend to be optional
- More common with calls, than with addresses
- Areal preferences for order
  - Preference for prenominal particles in European languages
  - preference for postnominal particles in African languages

Vocative as case?

- Some traditional grammmars take vocative to be case.
- 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
- Pro argument: VOC comes as a suffix in many (ancient) Indo-european languages that attaches on noun stems like case suffixes

Case-like suffix or derivational suffix?

Motivation to classify VOC-markers as case:

1. 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)
2. 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

1. 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
3. 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)
6. 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:

(17) *ʔušaẋ·uda* → ʔušaẋ·ude[18]
child.NOM child.VOC
'Child.' MAKAH

(18) *ʔa·si·qsu* → ʔa·si·qso·[19]
niece.NOM niece.VOC
'Niece.' NUU-CHAH-NULTH

[18] As quoted in Jacobsen (1994, p. 27) =ex. (28).
[19] As 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*

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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 which may involve the following aspects:

- Vowel lengthening
- Grammatical Tone
- Sufixation (e.g Australian languages)

Reduplication

- Yorùbá, with downstepp, endearment, playful admonishment: Bọ́sẹ̀, ꜜBọ́sẹ̀

Suppletion

- Kulina (Arawakan): *bedi* ‘daughter’ → *asi* ‘daughter.VOC’ (cf. Dienst (2014, pp. 275–276))
- Basque 2nd PERSON: *hi* INTM *zu* FRML pronouns: *to* M.VOC *no* F.VOC (cf. Haddican 2018, pp. 3–4, Hualde and Ortiz de Urbina 2003, pp. 150–152)
- Tamil and Australian languages Levinson (1983, pp. 70–71).
- English: *sir ma’am*

Vocative particles in (Indo-)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	*ɔ*	✓	—	pre-N	—	✓		?intimate	?
Scots Gaelic	*a*	?	?	pre-N	✓	✓	?	? formal	?
Irish	*a*	?	?	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	*o*	?	?	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	?
	o	✓	✓	pre-N	✓	✓	?	?	?
	e	✓	—	pre-N	—	✓	?	?	?
Persian	*ey*	✓	?	pre-N	✓	—	?	archaic	?

Table: Vocative particles in (Indo-)European languages

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Vocative particles in Asian and Oceanic languages

language	item	optionality	autonomy	position	address	call	distance	social relation	host
Mari	*-j*	✓	—	post-N	?	✓	?	intimate	?
Lezgian	*ja*	✓	?	pre-N	✓	✓	?	?	?
Arabic	*yaː*	✓	✓	flexible	✓	✓	?	?	n+imp
Nivkh AD/ESD	*-a/-aj*	?	?	post-N	?	✓	?	?	?
Nivkh AD	*-o/-ǵo*	?	?	post-N	?	✓	?	?	?
Mandarin	*a*	✓	?	post-N	?	✓	?	formal	?
Korean	*(y)a*	?	?	flexible	?	✓	?	children	?
	i/∅	?	?	flexible	?	✓	?	adolescent	?
Karbi	*ó*	?	?	pre-N	?	✓	?	?	?
Dumi	*eː*	?	?	pre-N	?	✓	?	?	?
Lao	*ʔeːj*	?	?	post-N	?	✓	?	?	?
Indonesian	*nah*	✓	?	pre-N	?	✓	?	?	?
	hai	✓	?	pre-N	?	✓	?	?	?
Maori	*e*	—	?	pre-N	?	✓	?	?	?
	waː	✓		flexible	✓	✓	?	?	?
Rapa Nui	*e*	?	?	pre-N	?	✓	?	?	?
	e. . . ē	?	?	post-N	✓	(✓)	?	?	?
Amele	*o*	✓	?	flexible	?	✓	?	?	n+cl
Kobon	*o*	✓	?	post-N	?	✓	distal	?	n+cl
	e/me/rö	✓	?	post-N	✓	✓	?	?	?
Coastal Marind	*ay*	?	✓	post-N	?	✓	?	?	
	aw	?	✓	pre-N	?	✓	?	?	?

Table: Vocative particles in Asian and Oceanic languages

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Vocative particles in Native American languages

language	item	optionality	autonomy	position	address	call	distance	social relation	host
Hualapalai	*é*	?	?	post-N		✓	prox	?	?
	(*y*)*é*	?	?	post-N	?	✓	prox	?	?
	(*w*)*ó*	?	?	post-N	—	✓	dist	?	n+cl
Tzotzil	*e*	✓	?	post-N	✓	(✓)	dist	?	n+cl
Cl. Nahuatl	*-é*	?	?	post-N	?	✓	?	M. SPKR	?
Aymara	*-ya*	✓	?	post-N	?	✓	?	(intimate)	?

Table: Vocative particles in Native American languages

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Vocative particles in Atlantic-Congo languages

language	item	optionality	autonomy	position	address	call	distance	social relation	host
Kissi	*wéì*	✓	?	post-N	?	✓	?	children	?
	é	✓		pre-N	?	✓	?	?	?
Mani	*-yò*, *-yè*	✓	?	post-N	?	✓	?	?	?
Koromfe	*é*	✓		pre-N	?	✓	?	?	?
Baoulé	*-à*	—	?	post-N	?	✓	?	?	?
Ewe	*ée*	✓	?	post-N	?	✓	dist	?	?
Gwa	*yèé*	?	?	?	?	?	prox	?	?
	yèéée	?	?	?	?	?	dist	?	?
	xùúúù	?	?	?	?	?	dist	?	?
Yorùbá	*ò*	✓	✓	post-N		✓	?	?	n+imp
Ijọ	-àa	✓	?	post-N	?	✓	?	?	?
Eton	*á*	✓	?	pre-N	?	✓	?	?	?
Gyele	-ò	✓	?	post-N	?	✓	prox	?	?
	-ó	✓	?	post-N	?	✓	dist	?	n+cl
ɓaka	-ó	?	?	post-N	?	✓	?	?	?
Umbundu	*á-/ ´*	—	—	pre-N	✓	✓	?	?	?
Rufumbira	*yee* (*we*)	?	?	pre-N	✓	✓	?	?	?
Tswana	*-a*	?	?	post-N	✓	✓	?	intimate	?
Zulu	*e*	✓	?	pre-N		✓	prox	intimate	?
	we	✓	?	pre-N	?	✓	dist	?	?
	au	✓	?	pre-N	?	✓	?	solemn	?

Table: Vocative particles in Atlantic-Congo languages

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Vocative particles in North and East African languages

language	item	optionality	autonomy	position	address	call	distance	social relation	host
Naro	*-è*	?	?	post-N	?	✓	?	?	?
Lugbara	*la*/*là*	✓	?	post-N	?	✓	?	?	?
Dinka	*-ee*	✓	—	post-N	?	✓	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.	?

Table: Vocative particles in North and East African languages

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	*-o*	✓	stemfinal	✓	✓	?	intimate	n
	-e	✓	stemfinal	✓	✓	?	intimate	
Modern Greek		—	stemfinal	✓	✓	?	?	n
Lithuanian		?	stemfinal	✓	✓	?	?	
Urdu		?✓	stemfinal	✓	✓	?	?	n
Hindi		?	stemfinal	✓	✓	?	?	
Georgian	*-o*	✓–	stemfinal	✓	✓			n
Limbu	*-e*	?✓	stemfinal	✓	✓	?	?	n
Ket	*-á/-ó*	✓	stemfinal	?	✓	prox	?	n
	-ə́/-ó	✓	stemfinal	?	✓	distal	?	n
Udihe	*-i*	✓	stemfinal	✓	✓	?	intimate	
	-e	✓	stemfinal	✓	✓	distal	?	
Itelmen	*-e/-a*	✓	stemfinal	✓	✓		?	n
Martuthunira	*-yi*	?	stemfinal	?	✓	?	?	
Mangarrayi	*-y*	✓	stemfinal	?	✓	?distal	?	n
Nez Perce	*-e*	?	stemfinal	?	✓	?	intimate-jun	n
	-eʔ	?	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+excl
Central Alaskan Yupik	vowel length.		?	✓	dist	intimate	?
Chipewyan	vowel length.	?	?	✓	?	?	?
Sierra Miwok	vowel length.	?	?	✓	?	?	?
Mohawk	vowel length.	?	?	✓	?	?	?
Hidatsa	vowel length.	?	?	✓	?	?	?
Wakashan	ablaut u>o, i>e	?	?	✓	?	?	n+imp
Turkana	tonal infl.	?	?	✓	?	?	?
Shilluk	tonal infl. H	?	?	✓	?	?	?
Ngiti	tonal infl. H	?	?	✓	?	?	?
Somali	tonal infl.	?	?	✓	?	?	?
Karbi	tonal infl. M	?	✓	✓	?	?	?

Table: Non-concatenative vocative forms I

Non-concatenative vocative realisations II

language	type	optionality	address	call	distance	social relation	host
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*	?	?	✓	?		cli
Ngardi	vocative chant + *=wu*	?	?	✓	?		(n+)cl

Table: Non-concatenative vocative forms II

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Non-concatenative vocative realisations II

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

Table: Non-concatenative vocative forms II

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*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 Ọláwalé (2022, p. 2) for Yorùbá, Dunn (1999, pp. 87, 90) for Chukchi and Miyaoka (2012, pp. 794–798)
- Reference a salient expectation within the shared belief space of the speaker and the addressee.
  - EXCL: Violation of speaker expectation.
  - L+H*!H% Vocative chant: confirmation of speaker expectation.
  - Asturian H+L*L% Vocative chant: violation of speaker expectation.

*Five key findings I

1. 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
3. Calls (?and addressess) can function as independent speech acts or sentence types (cf. Paul, 1880, pp. 192–193, 1920, p. 130, Delbrück 1901, pp. 143–145, Wundt 1901, pp. 74–75, 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)

*Five key findings II

4. In many languages vocative markers can apply to more complex syntactic hosts and utterances
5. Vocative nouns are systematically incompatible with determiners holds in most language (but see Svennung 1958, Schaden 2010, p. 180, Eckardt 2014, 226–227, Fn. 2, Ritter and Wiltschko 2020, pp. 8–9)
   - Mostly in languages that allow 3s as form of formal/distant address

Summary tendencies

1. ??Most common examples in grammars involve vocatives in utterance initial position
2. The most common strategy of marking vocatives is the use of particles.
3. Most vocative particles are optional since they tend to carry more specific not-at-issue meanings.
4. Particles are more commonly used to convey the social superiority of the speaker rather than that of the addressee
5. Particles are more commonly used for calls than for addresses.
6. Suffixes are less like to carry not-at-issue meaning, suggesting a stronger degree of grammaticalisation and integration.
7. Mandatory vocative markers tend to bear little or no specific not-at-issue meaning.
8. Intonation contours are only attested in the call function.
9. Non-initial addresses are often realised as prosodic clitics.