Tendencies in the morphological realisations of calls and addresses

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47th DGfS – AG 4: Morphological variation Johannes Gutenberg Universität Mainz 7th March 2025







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

Stress-shift

FLUL

Structure

FINISH: SYNTACTIC HOST CHECK NGARDI, WHICH CLAUSE TYPES ADD slides with Case realisation types ADD MORPHOLOGICAL PROCESSES 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

modification: tonal inflection



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



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



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)
- (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
- Non-at-issue content
- 6. Physical distance
- 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)

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 (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 preceding 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'

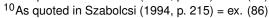
 * A Péter, gyere.9
 - DET Péter come-IMP.2s
 - Intended meaning '(The) Peter come!' HUNGARIAN
 - c. Péter, gyere. 10
 Péter. VOC come-IMP. 2S

'Péter come!'

HUNGARIAN

HUNGARIAN

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





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

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. м 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

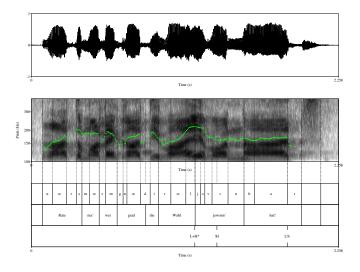
In many languages, calling contours are compatible with different speech acts/sentence types, such as German (cf. Gibbon 1976, pp. 274–287), English (cf. Ladd 1978, pp. 520–525; Jeong and Condoravdi 2017, 2018) and Hungarian (cf. Varga 2008, pp. 480–481, 492–494):

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*!H-%	'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





List of languages ADD to table: Ngardi und Wubuy examples

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



Sentential calls –across languages

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

- ► Hualapai: suffix -ó with VOC and other utterances whenever ADDR out of sight. (cf. example Watahomigie, Bender, and Yamamoto 1982, pp. 74–75).
- ► Kobon: particle *o* with VOC and other utterances whenever ADDR out of sight (cf. Davies 1981, pp. 6, 123–124)
- ► Amele: *e*/*o* other utterances whenever ADDR out of sight (cf. Roberts 1987, p. 272).
- ► Tzotzil: *e* with VOC and sentential utterances (cf. Cowan 1969, pp. 21–22)
- Ngardi (Pama-Nyungan): clitic =wu predominantly with imperatives and hortatives (cf. Ennever 2021, pp. 104–105, 627)
- Wubuy (Gunwinyguan): vocative chant lengthening of final syllable + high pitch + marker u found with VOC EXCLUMP

Sentential calls –across languages

- ► 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. Grimm 2021, p. 249)
- ► Hualapai: suffix -ó with VOC and other utterances whenever ADDR out of sight. (cf. example Watahomigie, Bender, and Yamamoto 1982, pp. 74–75).
- Kobon: particle o with VOC and other utterances whenever
 ADDB out of sight (cf. Davies 1981, pp. 6, 123–124)



Sentential calls –across languages I

- 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)
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- Yorùbá (Atlantic-Congo): Particle ò with VOC, DECL, IMP (cf. Brown 2010, pp. 10−12
- Gyele (Bantu): suffix o with VOC, IMP (cf. Grimm 2021, p. 249)
- Hualapai: suffix -ó with VOC and other utterances whenever ADDR out of sight. (cf. example Watahomigie, Bender, and Yamamoto 1982, pp. 74–75).



Sentential calls –across languages II

- ► Kobon: particle *o* with VOC and other utterances whenever ADDR out of sight (cf. Davies 1981, pp. 6, 123–124)
- Amele: e/o other utterances whenever ADDR out of sight (cf. Roberts 1987, p. 272).
- Tzotzil: e with voc and sentetial utterances (cf. Cowan 1969, pp. 21–22)
- (9) mùdì kí tàtò wúó¹¹ CL1-person NEG scream there-VOC-DIST 'Nobody scream over there!' GYELE
- (10) 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.¹²
 VOC-DIST



Sentential calls –across languages III

b. B: Augi o. Augi o. Augi o. 13

Augi voc-dist Augi voc-dist Augi voc-dist

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

B: Augi. KOBON

(11) Nya jìdó! Ge mi-ya:m-ay-ng-yó?¹⁴
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

¹⁴As quoted in Watahomigie, Bender, and Yamamoto (1982, pp. 74–75) = ex. (63).



¹¹As quoted in Grimm 2021, p. 249 = ex. (13).

 $^{^{13}}$ As quoted in Davies 1981, p. 6 = ex. (11c).

Fourthly, despite different morphological realisations, vocative marker in many languages can be applied not only to nouns and kinship terms but also to more complex types of utterances such as imperatives, exclamatives and declarative clauses. This is true of the (L+) H*!H-L% vocative chant in certain European languages including German (cf. Gibbon 1976, pp. 274–287), English (cf. Ladd 1978, pp. 520–525; Jeong and Condoravdi 2017, 2018) and Hungarian (cf. Varga 2008,

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

p. 480);

Starting with Moro (2003, pp. 248–249), Stavrou (2013, pp. 216–219): vocative always oriented to the addressee, with imperatives same reference, with some exclamation, different or no subject referent

Potential parameter, not tested yet Can all the vocative uses mark nouns that can be coreferent and non-coreferent with

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



Interplay of phonology and morphology

Evident, for most languages: nouns phrases ADD: sentential call.

- 1. Particles
- Concatenative extra slide on case
- 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**



- ▶ 1
- **2**
- ▶ 3
- 4
- **>** 5



- ▶ 1
- **2**
- ▶ 3
- **4**
- **>** 5



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



Grammatical tone: Verbs in Èdóid

Verbs in (West Benue/Atlantic-Congo): PRESENT and PAST tense with distinct tones, similar applies to the formation of imperative forms (cf. Melzian 1942, pp. 59–77, 77–79 Ogie 2009, pp. 15, 88–103, Schaefer and Egbokhare 2017, pp. 15–20):

```
(15) Òtà gbèn èbé.<sup>19</sup>
Òtà write.PRS books
'Òtà writes books (every day)'
'Òtà is writing a books (every day)'
```

- (16) Òtà gbén èbé.²⁰
 Òtà write.PST books
 'Òtà writes books (every day)'
 'Òtà is writing a books (every day)'
 - ► Monosyllabic transitive verbs with low tone on stem:



More on Grammatical tone:

In a similar manner, in Dogon languages (cf. Heath and McPherson 2013, McPherson and Heath 2015 Heath 2015)

- Dogon languages (cf. Heath and McPherson 2013, McPherson and Heath 2015 Heath 2015): verb derivation processes, purposive clause formation and possessor NPs are marked by a distinguished tonal pattern
- Chalcatongo Mixtec (Oto-Manguean Central Mexico) adjectives derivation can be derived from nouns by the application of a non-concatenative derivational morpheme replacing all the tones of the noun stem with high tones (cf. Macaulay 1996, pp. 64–65)



Grammatical Tone

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

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

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

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



Grammatical tone and tonal inflection

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



- 1
- **2**
- ▶ 3
- **4**
- **>** 5



- ▶ 1
- **2**
- ▶ 3
- 4
- **>** 5



Combination of several non-concatenative forms

- ___
- **>** 3
- **>** 4
- **>** 5

- **1**
- **2**
- ▶ 3
- 4
- **>** 5



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



- ▶ 1
- **2**
- ▶ 3
- **4**
- **>** 5



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	a	✓	?	post-N	?	✓	?	formal	?
Korean	(y)a	?	?	flexible	?	✓	?	children	?
	i/Ø	?	?	flexible	?	✓	?	adolescent	?
Karbi	Ó	?	?	pre-N	?	✓	?	?	?
Dumi	e:	?	?	pre-N	?	✓	?	?	?
Lao	?e:j	?	?	post-N	?	✓	?	?	?
Indonesian	nah	✓	?	pre-N	?	✓	?	?	?
	hai	✓	?	pre-N	?	✓	?	?	?
Maori	е	_	?	pre-N	?	✓	?	?	?
	wa:	✓		flexible	✓	✓	?	?	?
Rapa Nui	е	?	?	pre-N	?	✓	?	?	?
	eē	?	?	post-N	✓	(√)	?	?	?
Amele	0	✓	?	flexible	?	✓	?	?	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	?	?
	$(w)\acute{o}$?	?	post-N	_	✓	dist	?	n+cl
Tzotzil	е	✓	?	post-N	✓	(√)	dist	?	n+cl
Cl. Nahuatl	-é	?	?	post-N	?	✓	?	M. SPKR	?
Aymara	-ya	✓	?	post-N	?	/	?	(intimate)	?



Table: Vocative particles in Asian, Oceanic and American languages

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	yèé	?	?	?	?	?	prox	?	?
	yèééè	?	?	?	?	?	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
бака	-ó	?	?	post-N	?	/	?	?	?
Umbundu	á-/ ´	_	_	pre-N	✓	✓	?	?	?
Rufumbira	yee (we)	?	?	pre-N	✓	/	?	?	?
Tswana	-a	?	?	post-N	✓	✓	?	intimate	?
Zulu	е	✓	?	pre-N		✓	prox	intimate	?
	we	✓	?	pre-N	?	✓	dist	?	?
	au	✓	?	pre-N	?	✓	?	solemn	?
Naro	-è	?	?	post-N	?	✓	?	?	?
Lugbara	la/là	✓	?	post-N	?	✓	?	?	?
Dinka	-ee	1		post-N	?	√	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	?	1	?	inf. F.	?
	-vohow	1	_	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 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):

```
(20)
     OMA: [friː. də. ˈriː.
                                 (21)
                                      MAFALDA: Ó
                 L+ H*
                                                  VOC
         kə]
                                          Marina
         !H-%
                                          Marina
                                      MARINA: simH-%
     FRIEDERIKE: [jax.
                   L+H*
                                                yes
         !H-%
```

(22) TOMAS: Barboro.
Barbora.voc

BARBORA: jo^{H-%}/ ano^{H-%} 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

- (23) 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



Ingredients of the Analysis

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



Relation between the vocative and the noun

- Vocatives as heads?
 - Syntactic category determined by vocative
 - Semantic properties determined by vocative
- Vocatives as modifiers?
 - Syntactic category determined by sister
 - Semantic properties determined by vocative
- Vocatives as constructions?

Vocatives as modifiers

Evidence that vocatives are modifiers:

- No strict selectional restrictions, can combine with many types of hosts
- 2. They leave the original illocutionary force intact
- 3. Two different instantations of vocatives can cooccur
- 4. Share properties with dominant replacive grammatical tone, which is also bound to modifiers
- 5. Share crucial properties with affixes that are considered as modifiers, e.g. German *un-*, *erz-*, *miss-*



Interaction of intonation and particles

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

(24) OLD LADY: 6 Junior!²⁵
VOC Junior

'Barbora!' CZECH

Dog: [ignoring the old lady]

'Barbora!' CZECH

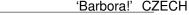
OLD LADY: Junior^{L+H*}!H-%

iunior

'Barbora!' CZECH

Coincidence of vocative particle and intonation contour:

(25) FEMALE VOICE: ó João!L+H*!H-%26







Lexicon entry of the vocative morpheme (calling contour): comments

% !H MUST BE PART OF LEX ENTRY OF VOCATIVE MORPHEME

- m content of the message (address, assertion, question, directive, ...) conveyed by the modified utterance of type SemAbstObj
- semantic contribution of call is a the request for the addressee to cooperate with the speaker with respect to the message m
- Speaker does not know whether they have the addressee's attention c_{att}
- Speaker signals close relationship with addressee c_{fam}
- Speaker expresses some expectation c_{exp}
- empty moves-list: interlocutors not engaged into any conversation yet
- Therefore also empty QUD-list



Conclusions

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



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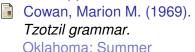
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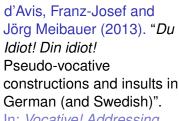


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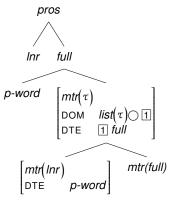
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Type hierarchy for prosodic constituents

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?

