

Hungarian prosody

A review

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Discourse-configurationality

- ▶ Information structure (or information packaging) [e.g. Chafe 1974]
→ structuring of information within a sentence or utterance

Topic vs. Comment

Focus vs. Background

Given vs. New

- ▶ Hungarian is a “discourse configurational language”
→ fixed positions for focus and topic [É. Kiss 1995]
 - ▶ post-verbal: free word order
 - ▶ pre-verbal: “fixed” word order – depends on the information structure of the sentence
- ▶ schematic structure of a Hungarian sentence:
Topic » [Focus/verbal modifier » Verb » Post-verbal domain]_{comment}

Hungarian sentence structure

Pre-verbal domain

- Topic position → sentence initial & can be reiterated

- (1) a. [Mari-nak]^T oda-adta Péter az almá-t.
 Mary-DAT VPRT-gave Peter the apple-ACC
 “As for Mary, Peter gave her the apple.”

[Balogh 2020]

- b. [János]^T [Mari-t]^T mindenütt kereste.
 John Mary-ACC everywhere sought.
 “As for John, he sought Mary everywhere.”

[É. Kiss 2002, glosses adapted]

Hungarian sentence structure

Pre-verbal domain

- ▶ Focus position → immediate pre-verbal position
 - ▶ broad focus (neutral sentence) = pre-verbal position unfilled or filled by a verbal modifier
 - ▶ narrow focus (non-neutral sentence) = filled pre-verbal focus position & inverted order of verb and verbal modifier
- not only differ in syntax, but also in their prosodic realisation

- (2) a. János be-mutatta Vili-t Zsuzsi-nak.
 John VPRT-introduced Bill-ACC Sue-DAT
 'John introduced Bill to Sue.'
- b. János Vili-t mutatta be Zsuzsi-nak.
 John Bill-ACC introduced VPRT Sue-DAT
 'John introduced [BILL]^F to Sue (and no one else).'

Hungarian sentence structure

Characteristics of the pre-verbal focus position

- ▶ typically associated with exhaustivity [e.g. É.Kiss 1998, 2002]
→ but e.g. Onea (2009) argue that exhaustiveness is not part of the truth conditional content of sentences with pre-verbal focus
- ▶ marks identificational focus not information focus [É.Kiss 1998]
 - ▶ identificational focus → “x and no one/nothing else”
 - ▶ information focus → new, non-presupposed information without an exhaustive interpretation; can occur post-verbally (“in situ”)

Hungarian sentence structure

Post-verbal domain

- ▶ larger degree of flexibility → multiple factors interact
- ▶ post-verbal focus types: [Szalontai 2019]
 1. post verbal simple (information) focus
 2. *is*-marked focus (focus sensitive additive particle)
 3. second part of a **double focus** construction in which the pre-verbal focus position is filled by the other focused constituent

Approaches to Hungarian prosody

Widely accepted assumptions

- ▶ prosodic words are left-headed = word stress on initial syllables
[e.g. Varga 2002; Olaszy 2010]
- ▶ prosodic words are mapped over content words or morpho-syntactically created units (e.g. verbal particle + verb)
- ▶ there is a intermediary level between prosodic words and intonational phrases
 - ▶ accentual phrase [Mády et al. 2013]
 - ▶ prosodic phrase [e.g. Vogel & Kenesei 1987; Szendrői 2001]

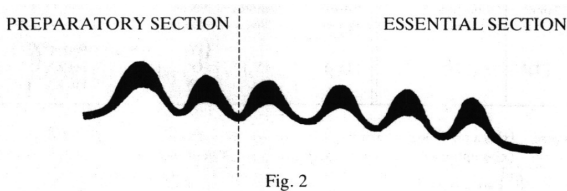
Approaches to Hungarian prosody

Kálman & Nádasy

- ▶ accent on every content word (neutral sentence)
- ▶ each main accent is equally “strong” [Kálman & Nádasy 1994]
- ▶ eradicating stress on the focused constituents
 - ▶ not stronger than a normal accent → only more prominent because the rest is deaccented
 - ▶ typically on the designated focus position, but can also fall on, e.g., a quantifier or an *is*-marked focus [Kálman et al. 1986]
→ not linked to a specific structural position
- ▶ elements preceding the focus (e.g., topic) keep their unreduced stresses & form their own phonological phrase
[e.g. Kenesei 1998, Kálman & Nádasy 1994]

Neutral sentences

Kálmán et al. 1986

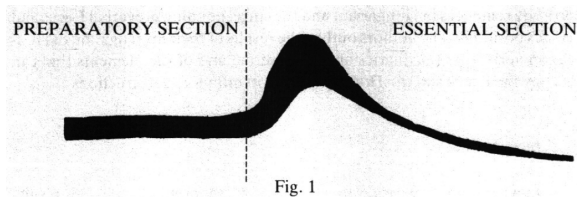


[Kálmán et al. 1986:131]

- ▶ pitch accent on every lexical word
- ▶ downdrift → intensity decreases during the sentence
- ▶ step up → intensity “steps up” again at the beginning of a new intonational phrase [e.g., Kenesei 1998, Varga 2002]

Non-neutral sentences

Kálmán et al. 1986



[Kálmán et al. 1986:130]

- ▶ one (or more) main accents → deaccenting of the other lexical words
- ▶ a single main accent (most often on the focus position) → interpreted as (contrastive) narrow focus on the accented element [see, e.g., Varga 2002, Kálmán et al. 1986]

Single vs. multiple main accent(s)

- (3) a. 'Kati=is írt Péternek mindig.
Kati=also wrote Peter-DAT always
- b. 'Kati=is írt Péternek '**mindig**.
Kati=also wrote Peter-DAT always

'Kati, too, always wrote to Peter.'

[Kálmán 1985]

- ▶ a. single main accent on *Kati=is* & everything else unaccented
→ narrow focus
- ▶ b. additional main accent on *mindig* → either double focus or broad focus (information focus on *mindig*)

Approaches to Hungarian prosody

Varga's contour based approach [e.g., 1981, 1983, 2002, 2016]

- ▶ contours are constituents within an intonational phrase
→ characteristic IP internal structure
- ▶ the final contour is the most important
 - ▶ begins on the final accented syllable and lasts until the end of the IP
 - ▶ followed by an IP boundary → entire sentence mapped onto one IP in simple declarative sentences
- ▶ downward movement of subsequent contours within a clause

Approaches to Hungarian prosody

Varga's contour based approach [e.g., 1981, 1983, 2002, 2016]

- ▶ neutral (broad focused) sentence → post-lexical pitch accents located on the major constituents of the clause aligned with the stressed initial syllable of content words
- ▶ no specific structure for pre-verbal focus except that it has an accent and the verb is obligatory deaccented [e.g. Varga 2002]
- ▶ two rules that can overwrite the basic mapping rules in the post-verbal domain [Varga 2016]:
 - ▶ upstep rule → optional avoidance of the downward movement of subsequent contours within a clause for the final constituent
 - ▶ rising rule → optional insertion of a rising accent on the second accent of the first post-verbal constituent (inserts an IP boundary after it)

Approaches to Hungarian prosody

Kenesei & Vogel (e.g. 1987, 1989)

- ▶ assume a completely flat structure of the Hungarian sentence:
 $[Topic]_{IP} [VPRT-V]_{IP} [XP]_{IP} [YP]_{IP}$
- ▶ focus is associated with the prosodic phrase
- ▶ prosodic restructuring rule modifies the broad focus structure
[Kenesei & Vogel 1998]

broad $[Topic]_{IP} [VPRT-V]_{IP} [XP]_{IP} [YP]_{IP}$

narrow $[Topic]_{IP} [[Foc V [XP]_{PPH} [YP]_{PPH}]_{PPH/IP}$

- ▶ the prosodic structuring is primarily targeted by the syntactic structure (some influence from semantics)

Approaches to Hungarian prosody

Szendrői (e.g. 2001, 2003)

- ▶ the movement of narrow focus to the immediate pre-verbal position is motivated by its prosodic needs
 - ▶ Stress focus correspondance principle [Reinhard 1995]
→ the constituent in narrow focus must receive the main (nuclear) stress of a sentence
 - ▶ there is a unique structural position associated with nuclear stress in an IP → left-edge of the IP
[see, e.g. É.Kiss 1987, 1994, 2002]
- ▶ this account makes it difficult for focus to occur elsewhere
- ▶ post-verbal informational focus is not focus but 'just' new information → does not receive nuclear accents associated with IPs but with the head of prosodic phrases

Approaches to Hungarian prosody

Differences and similarities

- ▶ accent on the topic is optional
[Kálmán & Nádasy 1994, exp: Genzel et al. 2015; Mády 2015]
- ▶ disagreement regarding the nature of accents after the verb
 - ▶ Kálmán & Nádasy (1994): post-focal constituents are deaccented
 - ▶ Szendrői: post-verbal accents (if present) are at a different hierarchical level than pre-verbal accents
 - ▶ experimental evidence suggests: deaccentuation rather an optional tendency than a strict rule based operation
[Genzel et al. 2015; Mády 2015]

Approaches to Hungarian prosody

Summary and comparison

- ▶ some important points of disagreement at the level of IPs:
 1. How are IPs matched with sentences?
 2. Do IPs have a structural head position (with default prominence) and if yes, where?
- ▶ several proposals in terms of syntax-prosody mapping and the structure of prosodic phrases
 - ▶ mapping → major division between simple sentences being mapped onto one or more IPs
 - ▶ structure → prosodic structure left-headed or without default prominence
 - ▶ focus realisation → results of prosodic restructuring or does not effect the prosodic structure

Prosodic correlates of IS categories

- ▶ widely accepted that IS categories correlate with the prosodic realisation of sentences, for example:
 - ▶ focus → near universal association with prosodic prominence [Truckenbortdt 1995; Büring 2010]
 - ▶ givenness → commonly associated with a decrease of prosodic prominence; often licences deaccentuation [Ladd 1980]
- ▶ cross-linguistical differences in the implementation depending on how prosodic prominence is realised

Phonetic marking of prominence

Prominence and focus (and givenness)

- ▶ prosodic prominence is often associated with:
 - ▶ higher minima/maxima and a larger range of the fundamental frequency (f_0 → the acoustic realisation of pitch)
 - ▶ an increase in duration
 - ▶ an increase in intensity
- ▶ even though givenness is commonly associated with a decrease of prominence, this seems not to be universal
→ Dutch marks contextually given items with deaccentuation, while Italian does not [Swerts et al. 2002]

Prominence and prosodic phrasing

- ▶ prominence is also often associated with prosodic phrasing
 - ▶ indicators of phrasing:
 - ▶ pre-final lengthening (correlates well with prosodic boundaries)
[e.g. Lehiste 1973; Klatt 1975; Shattuck-Hufnagel & Turk 1996]
 - ▶ pauses [e.g. Wagner & Watson 2010]
 - ▶ prosody prominence may be realised by prosodic structure in two ways [Jun 2005, 2014]
 - ▶ head-prominence → cuminatively, by marking the head of a prosodic unit
 - ▶ edge-prominence → demarcatively, by marking the edge of a prosodic unit
- distinction difficult if a language has a strict position for the head at the edge of a phrase (edge/head-language)
[e.g. Hungarian: Mády et. al 2016]

Prominence marking in Hungarian

Experimental studies

- ▶ experimental studies on Hungarian prominence marking are often mainly interested in:
 1. types of accents on topics and focused constituents
 2. parametric measures of intonation in terms of f0 contours and duration
- ▶ Two recent experiments on prominence marking in Hungarian:
 - ▶ Mády 2015 → experimentally investigated the role of prosodic cues in marking pre-verbal foci in Hungarian (production and perception study)
 - ▶ Genzel et al. 2015 → investigated the prosodic realisation of pre-verbal (non-)contrastive foci and the role of the background (given or contextually new)

Prominence marking in Hungarian

Results from Mány 2015 & Genzel et al. 2015

- ▶ not all results from Mány & Genzel et al. seem to support each other → could be due to a high amount of variation in the exact prosodic realisation of focus
- ▶ experimental results on prominence marking in Hungarian:
 - ▶ higher f_0 maximum on the focused element → found by Genzel et al. and preferred in Mány's perception experiment
 - ▶ alignment of the f_0 maximum → later alignment (Mány) & steeper fall (Genzel et al.)
 - ▶ overwhelming tendency for falling accents on focused items
 - ▶ post-focal deaccentuation not obligatory but merely a tendency → givenness leads to more frequent deaccenting
 - ▶ pauses & pre-final lengthening before prominence (Mány et al. 2016)

Prominence marking in Hungarian

Summary

- ▶ Hungarian mainly uses pitch to mark focus
 - ▶ increasing the height of the f_0 maximum on the accented syllable
 - ▶ modifying the placement of the f_0 maximum or the steepness of the fall
- ▶ it is somewhat unclear how consistent these cues are based on the experimental evidence presented

Bottom line: There is still a lot to do!



Thank you for your attention!

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