Prosody and Information Structure in Hungarian Multiple Questions

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Aims

- to look at multiple questions (1-a)-(1-b) in Hungarian

(1) a. *Who* left *when*?
   b. *Who* left and *when*?

- to examine the prosody of these questions in order to see whether the question words exhibit the typical prosody associated with focus (and topic) in Hungarian (as suggested in the literature)
Outline

1 Background
2 The Issue
3 The Pilot Experiment
4 Discussion and Conclusions
1 Background

2 The Issue

3 The Pilot Experiment

4 Discussion and Conclusions
Multiple Questions

- The possible syntactic positions of the question words vary from language to language
  - Only one preverbal question word, the other(s) in situ (the ‘English’ type)
    
    (2) **Who** bought **what**?

  - All question words in the preverbal domain (‘paratactic QWs, multiple fronting’): Slavic languages, Hungarian, Romanian...
    
    (3) **Ki mikor** hozta el az öccsét az ovíból?
        who when picked up his brother.acc the kindergarten.from
        ‘Who picked up his younger brother from the kindergarten when?’

  - Coordinated question words (preverbally, or one of them sentence-finally)
    
    (4) **When** and **where** did you meet?

    (5) **When** did you meet and **where**?
The answer

Usually two answer types are considered in the literature:

- **pair-list answer**: each element from the set determined by the (linearly) first question word paired up with one element of the set determined by the other question word

  (6)  
  a. Q: **Who** bought **what**?  
  b. A: John bought a car, Mary a bike, Joe a scooter...

- **D(iscourse)-linked QW** (Comorovski, 1996): given, known by speaker and hearer (they can partition the set in the same way)

- **Sorting key**: the QW according to which the information is organized in the answer → the Sorting key is usually D-linked, but this is not necessarily the case

- **single-pair answer**: no list, each question word answered by one single element

  (7)  
  a. Q: **Who** left and **when**?  
  b. A: Mary left in the early afternoon.
Multiple Questions and Information Structure

Usually...

- question words are taken to be foci that correspond to the foci in the answer (prosody, syntactic position)

Sometimes...

- proposed that D-linked question words in multiple questions share their formal characteristics with topics (Mycock, 2006; Surányi, 2007; Gazdik, 2011)
Formal highlighting in the Hungarian sentence (syntax)

- Hungarian: preverbal part of the sentence is determined by the information structure (discourse configurational language, (É. Kiss, 1995))
- Schematic syntactic structure:

  Topic field
  
  Quantifiers  PPP  V  Postverbal part  Right periphery
  
  PPP = Prominent Preverbal Position
Prominent positions

- the **Topic field**: hosts topics, contrastive topics, and some question words
- the **Prominent Preverbal Position (PPP)**: hosts the focus, verbal modifiers (verbal particles, bare nominal complements), question words, negative words, resultative secondary predicates
- the **Right Periphery**: contrastive topics, (second) focus, question words
Formal highlighting in the Hungarian sentence (prosody)

- focus:
  - steep fall and extended pitch range (PRE, see Mycock (2006))
  - ‘eradicated’ stress in post-focal material (Kálmán, 1985)

- topic:
  - mid level (É. Kiss, 1987)

- contrastive topic:
  - fall-rise (É. Kiss, 2002)
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Hungarian follows the regular pattern: coordinated question words usually require single pair answers, whereas multiple fronting requires pair list answers.

One answer type not considered in the literature: multiple pair answers.

Patterns examined in the experiment:

- Multiple questions
  - Paratactic QWs
    - Pair-list answer
  - Coordinated QWs
    - Single-pair answer
    - Multiple pair answer
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Paratactic QWs

Context: Anna, Nóra and Juli are friends and they often go together to pick up their brothers from the kindergarten.

(8) Ki mikor hozta el az öccsét az óvodából?
   who when pick.2.sg.pst up his brother.acc the kindergarten.from
   ‘Who picked up his younger brother from the kindergarten when?’

(9) Anna kora délután hozta el, Nóra 5-kor, Juli pedig csak hétkor.
    Anna early afternoon pick.2.sg.pst up Nora 5-at, Juli whereas only 7-at
    ‘Anna already in the early afternoon, Nora at 5, whereas Juli only at 7.’

Syntax:
- the QWs precede the verb: one in the Topic field, the other in the PPP (postverbal VM)
- the corresponding elements in the answer appear in the same positions

Information Structure:
- the question contains a D-linked and a non-D-linked question word, the first being also the Sorting-key
- the answer contains contrastive topic — focus pairs corresponding to the QWs
Coordinated QWs with Single Pair reading

(10) **Kivel és mikor** találkozol legközelebb?
who.with and when meet.2.sg.prs next time
‘Who are you meeting next time?’

(11) Marival találkozom 3-kor.
Mari.with meet.2.sg.prs 3.at
‘I’m meeting Mary at 3.’

Syntax:
- the QWs coordinated in the PPP
- the first corresponding element in the answer in the PPP, the other in the Right periphery

Information Structure:
- both QWs are non-D-linked, syntactic properties correspond to that of foci
- two foci in the answer: one in the usual focus position (PPP), the other in the Right periphery
Coordinated Qws with ‘Multiple Pair’ reading

(12) **Kivel** és **mikor** beszéltél a problémáról?
who with and when talk 2.sg.pst the problem about
‘With whom did you talk about the problem and when?’

(13) **Annával** még a múlt héten beszéltem, **Nórával** a hétvégén,
Anna with already the last week speak 1.sg.pst Nora the weekend on,
**Julival** pedig **tegnap**.
Juli with whereas yesterday
‘With Anna I spoke already last week, with Nora on the weekend, and with Juli yesterday.’

→ the question asks about one person and one time slot, but the answer has to be a layered one
(a different answer strategy chosen)

Syntax:
- the syntactic structure of the question is the same as that of single-pair questions
- that of the answer is the same as that of pair-list questions

Information Structure:
- both QWs are non-D-linked, the linearly first functions as the Sorting key
- layered discourse strategy (Büring, 1997, 2003): contrastive topic − focus pairs (the people and the appointments are contrasted)
Hypotheses to be tested

We conducted a small-scale pilot experiment on the prosody of the 3 question types and the answers given to them in order to test the following hypotheses:

1. multiple questions containing paratactic QWs and coordinated QWs exhibit different prosody
2. pair-list answers exhibit the typical accent of contrastive topic — focus pairs
3. in single pair answers, the elements corresponding to the QWs exhibit focus accents
4. in multiple pair answers, the second element of the pairs exhibit focus accent, the first can receive both contrastive topic and focus accent (non-D-linked, new, but contrastive element of a list, indicator of a layered discourse strategy)
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Pilot experiment

- speakers: 2 native speakers of Hungarian (NE Hungary), one male and one female, aged 30
- data: $3 \times 2 \times 3 \times 2 = 36$ question – answer (Q/A) pairs
  - presented on a computer screen in pseudo-randomized order interspersed with 36 fillers
  - 31 Q/A pairs analyzed
    - 10 multiple pair Q/As: *Ki/kivel és mikor...*
    - 10 single pair Q/As: *Ki/kivel és mikor...*
    - 11 pair list Q/As: *Ki/kivel mikor...*
AM approach developed for description of Egyptian Arabic
(El Zarka 2011, 2013)

3 main types of tonal contours (Brazil, Bolinger):

- **LEADING** \((L^*H; LH*; H^*)\)
- **CLOSING** \((H^*L; HL*; !HL; L^*)\)
- **LINKING** \((L^-)\)
Multiple question contours

Ki és mikor hoz ta el a ruhát a tisztitóból? Anna hoz telegrap.

<table>
<thead>
<tr>
<th>ki</th>
<th>mikor</th>
<th>Anna</th>
<th>telegrap</th>
</tr>
</thead>
<tbody>
<tr>
<td>ki</td>
<td>mi</td>
<td>on</td>
<td>get</td>
</tr>
<tr>
<td>LH*</td>
<td>H*</td>
<td>L</td>
<td>H*</td>
</tr>
</tbody>
</table>

Ki mikor hoz ta el az öccset az ovi ból?

<table>
<thead>
<tr>
<th>ki</th>
<th>mikor</th>
</tr>
</thead>
<tbody>
<tr>
<td>ki</td>
<td>mi</td>
</tr>
<tr>
<td>H*</td>
<td>L</td>
</tr>
</tbody>
</table>
Question words in multiple questions

**Multiple and single pair questions**

ki és mikor? (who and when)

kivel és mikor? (with whom and when)

- leading + closing L*H / H* + (^)H*L
- closing H*+ L>

**Pair list questions**

ki mikor? (who when)

kivel mikor? (with whom when)

- leading + closing (L)H*+ (^)H*L
- closing H*+ L>

**Diagrams**

- Two prominences
- One prominence
Single pair answers

Marival találkoz om három kor.

<table>
<thead>
<tr>
<th>Marival</th>
<th>három kor</th>
</tr>
</thead>
<tbody>
<tr>
<td>mo</td>
<td>ha:</td>
</tr>
<tr>
<td>L</td>
<td>H*</td>
</tr>
<tr>
<td>H</td>
<td>L*</td>
</tr>
</tbody>
</table>

![Graph showing prosodic patterns](chart.png)
Multiple pair and pair list answers

Annával találkoztam kedden, Nórával szerdán, és Julival pénteken.
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Discussion of prosodic data 1

Does focus prosody exhibit:

- focus accent?
  - ✔ (can be overridden by continuity contour)
- post focus deaccentuation (pitch range compression)?
  - ✔ (if postfocal material available)
- pitch range expansion?
  - ✔ (depending on position)
Discussion of prosodic data 2

Is there a uniform topic accent? ✗

- falling when followed by rise (Olaszy, 2000)
- opposition between topic and comment (Mycock 2006: 200)
Question words associated with:

- **contour type 1**, as identified by Mycock (2006) for pair list question, but applying across the board, irrespective of whether QW occupies topic field or PPP
- **contour type 2** shows a focus accent on the D-linked (topic-like) and integration of $2^{nd}$ QW into fall $\Rightarrow$ one prosodic word/phrase
Conclusions

1. multiple questions containing paratactic QWs and coordinated QWs exhibit different prosody ✗
   
   **However:** the integrated prosodic contour is more frequent in paratactic questions

2. pair-list answers exhibit the typical accent of contrastive topic — focus pairs ✗

3. in single pair answers, the elements corresponding to the QWs exhibit focus accents ✓

4. in multiple pair answers, the second element of the pairs exhibit focus accent, the first can receive both contrastive topic and focus accent ✓

   **However:** this is also the case with pair-list answers, although focus-accent is less frequent in these
References


Question words in simple questions

![Graphs showing prosody and IS in Hungarian Mult Qs]

<table>
<thead>
<tr>
<th>Hol találkozunk?</th>
<th>A F_téren</th>
</tr>
</thead>
<tbody>
<tr>
<td>hol</td>
<td>föteren</td>
</tr>
<tr>
<td>hol</td>
<td>fö</td>
</tr>
<tr>
<td>H*-(L-)</td>
<td>H* L</td>
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</tbody>
</table>