The acquisition of the exhaustive interpretation of Hungarian focus constructions

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• Background
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• Results
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Research questions

1. Regarding the exhaustive reading, what are the main differences between the acquisition processes of the following 3 sentence types:
   (i) sentences with *csak* ‘only’,
   (ii) sentences with *structural focus*,
   (iii) *neutral SVO* sentences?

2. How do these results contribute to the semantic discussion concerning the exhaustive interpretation of these constructions?
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Background – *csak* ‘only’

Horn (1969): sentences containing focus particles have **two meaning components**

(1) *Only Muriel voted for Hubert.*  
(Horn 1969: 98)  
**Assertion:** ‘No one other than Muriel voted for Hubert’  
(negative contribution)  
**Presupposition:** ‘Muriel voted for Hubert’  
(positive contribution, prejacent)

Hungarian *csak*: Kenesei (1986), Szabolcszi (1994)

(2) *Csak Péter alszik.*  
(Kenesei 1986: 134)
Background – csak ‘only’

Different proposals regarding the status of the prejacent:
• Horn (1996): presupposition of existence
  (‘Someone voted for Hubert’)
• van Rooij & Schulz (2005): conversational implicature
• Beaver & Clark (2008), Roberts (2011): backgrounded entailment

Consensus: the exhaustive implication is an assertion
Roberts (2011) – proffered content
Background – structural focus

structural / pre-verbal / identificational focus
• syntactically and prosodically marked

(3) PÉTER aludt a padlón.  (Szabolcsi 1981: 144)
‘It was Peter who slept on the floor.’

What does structural focus express?
• exclusion by identification (Kenesei 1986)
• exhaustive identification (É. Kiss 1998)
• specificational predicate (Higgins 1973, É. Kiss 2011)
Background – structural focus

How does sentences containing structural focus express this exhaustive meaning?

1. [+exhaustive] semantic feature
   Szabolcsi 1981, É. Kiss 1998, among others

2. presupposition
   “The focus-containing utterance presupposes rather than asserts the uniqueness of its antecedent.”
   (van Leusen & Kálmán 1993: 12)
3. implicature

- conversational implicature
  Wedgwood 2003, 2005; Onea & Beaver 2011
  “The pragmatic tendency to interpret cooperative answers to questions as complete then explains the exhaustivity effects.”
  (Onea & Beaver 2011: 358)

- conventional implicature
  Gerőcs, Babarczy & Surányi 2014
Background – Previous experiments I.

Onea & Beaver (2011)

(4) a. Csak MARCI fogott meg egy lepkét.
    b. MARCI fogott meg egy lepkét.
    c. Marci megfogott egy lepkét.

Possible responses:
Yes, and Peter caught a butterfly too.
Yes, but Peter caught a butterfly too.
No, Peter caught a butterfly too.
Background – Previous experiments I.

Onea & Beaver (2011)
Background – Previous experiments II.

Gerőcs, Babarczy & Surányi (2014)

Experiment 1 – online truth-value judgment task
Experiment 2 – offline, indirect task
→ Exhaustivity of structural focus is due to a conventional implicature
  - an implicature associated with a particular form;
  - answer to the Question under Discussion (Roberts 1998)
Background – Previous experiments III.

Kas & Lukács (2013) – acquisitional study

Truth Value Judgment task – binary yes/no answers (not suitable for testing theories concerning the semantic status of exhaustivity)

- Neither 6-year-olds nor 10-year-olds showed any sign of focus sensitivity as a group.
- Responses of adults were inconsistent too.
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3 experiments

Experiment 1. (sentences with structural focus)
(1) **A** _NYUSZI_ _emelte fel_ a _zászlót._
    the rabbit raised up the flag-ACC
    ‘It is the rabbit who has raised the flag.’

Experiment 2. (sentences with **csak** ‘only’)
(2) **Csak a** _nyuszi_ _emelte fel_ a _zászlót._
    only the rabbit raised up the flag-ACC
    ‘It is only the rabbit who has raised the flag.’

Experiment 3. (neutral SVO sentences)
(3) **A** _nyuszi_ _fel-emelte_ a _zászlót._
    the rabbit up-raised the flag-ACC
    ‘The rabbit has raised the flag.’
Conditions of Experiment 1–3.

Control conditions:

(i) true / exhaustive condition

(ii) false condition

Critical conditions:

(iii) non-exhaustive condition

(iv) condition (i) with a distractor
Procedure

Sentence – picture verification task (Experiment 1 – 3)
Experiment 1 – 1a: yes/no answers
   – 1b: 3-point-scale

  cf. Katsos & Bishop (2011)
  Balázs & Babarczy (in press)

4 conditions x 8 items = 32 test sentence-picture pairs
   + 24 filler sentence-picture pairs
• randomized order, SR Research Experiment Builder
• 2 occasions
Participants:
4 age groups in each experiments (Exp 1a, 1b, 2, 3)
- 15 preschoolers (mean ages: 5;9, 6;2, 5;9 and 6;4)
- 15 7-year-olds (mean ages: 7;5, 7;2, 7;5 and 7;6)
- 15 9-year olds (mean ages: 9;7, 9;7, 9;3 and 9;6)
- 15 adults (mean ages: 22;7, 37;5, 42;7, and 22;10)
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Acceptance ratings of sentences with structural focus (Experiment 1a and 1b) in non-exhaustive contexts

- Preschoolers: 73.0%
- 7-year-olds: 63.0%
- 9-year-olds: 59.0%
- Adults: 62.5%
Acceptance ratings of sentences with structural focus (Experiment 1a and 1b) in non-exhaustive contexts

- Preschoolers: 73.0% yes, 62.2% other
- 7-year-olds: 63.0% yes, 27.5% other
- 9-year-olds: 59.0% yes, 18.0% other
- Adults: 62.5% yes, 13.0% other
Results of Experiment 1a and 1b

• Experiments using a binary judgment are not suitable to point out the exhaustivity of structural focus.
• In what follows, I am only discussing the results of Experiment 1b.
• In the next experiments, I am going to use the three-point scale.
Results of the adult control groups in the non-exhaustive conditions of Experiment 1 – 3
Results of the adult control groups in the non-exhaustive conditions of Experiment 1 – 3
Results of the preschoolers in the non-exhaustive conditions of Experiment 1 – 3
Results of the 7-year-olds in the non-exhaustive conditions of Experiment 1 – 3
Results of the 9-year-olds in the non-exhaustive conditions of Experiment 1 – 3
Proportion of responses of the non-exhaustive condition of Experiment 1b (structural focus)
Proportion of responses of the non-exhaustive condition of Experiment 1b (structural focus)

Friedman ANOVA

***: $p < 0.001$
Proportion of responses of true plus distractor condition of Experiment 1b (structural focus)
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Discussion – Findings

• No difference between the age groups in the interpretation of csak ’only’.

• In the case of neutral SVO sentences, only 9-year-olds differed from other age groups.

• In the case of structural focus, there is an increase of exhaustive interpretation with age.
  → Exhaustivity encoded by a specific syntactic configuration is harder for children to process.
Discussion – The exhaustivity issue

Potts (2005: 23)
Discussion – The exhaustivity issue

Potts (2005: 23)

- Wedgwood (2005)
- Onea & Beaver (2011)
- van Leusen & Kálmán (1993)
- Gerőcs, Babarczy & Surányi (2014)

Szabolcsi (1981)
É. Kiss (1998)
Discussion – The exhaustivity issue

• At-issue meanings can be ruled out, because of the differences between Experiment 1b and 2. (structural focus vs. csak)

• Context dependent meanings can be excluded, because of the differences between Experiment 1b and 3. (structural focus vs. neutral SVO)
Discussion – The exhaustivity issue

• Conventional implicatures:
  
  “In some cases the conventional meaning of the words used will determine what is implicated, besides helping to determine what is said.” (Grice 1967)

(5) He is an Englishman; he is, therefore, brave.
   
   (Grice 1967: 24)

Potts (2005): CIs are speaker-oriented entailments which are independent of the at-issue entailments.

(6) Sheila believes that Chuck, a psychopath, is fit to watch the kids.
   
   (Potts 2005: 117)
Discussion – The exhaustivity issue

- Conventional presupposition seems to be a good candidate
  - Gazdar (1979: 108): conventional presuppositions arising through syntactic operations (e.g. clefting)
  - see also Karttunen (1974), Büring and Križ (2013)
  - Potts (2005): speaker-oriented, backgrounded meanings that are not easily altered by contextual factors.
  
→ Adopting the view of Kenesei (1986), Szabolcsi (1994), Bende-Farkas (2009) with modification: exhaustivity is a conventional presupposition
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Conclusions

Experimental data support the view that there are 3 different kinds of exhaustivity in the 3 discussed constructions.

• Csak – assertion
• Structural focus – conventional presupposition
• Neutral SVO sentences can also be interpreted exhaustively, however, this is only a pragmatic implicature arising in certain contexts.
Thank you for your attention!

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