Exhaustivity of structural focus in Hungarian

Presupposition or implicature?

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• Background
• Experiments
• Results
• Discussion
• Conclusion
structural / pre-verbal / identificational focus

• **syntactically** and **prosodically** marked

  (1) *Péter meg-vette a ház-at.*  \( \emptyset \) focus
  Peter PRT-bought the house-ACC
  ‘Peter bought the house.’

  (2) *A HÁZ-AT vette meg Péter.*  object focus
  the house-ACC bought PRT Peter
  ‘It was the house that Peter bought.’

• express **exhaustive identification** (É. Kiss 1998)
How do sentences containing structural focus express this exhaustive meaning?

1. [+exhaustive] semantic feature

2. presupposition
   Kenesei (1986), van Leusen & Kálmán (1993),
   Szabolcsi (1994), Bende-Farkas (2009), É. Kiss (2011)

3. implicature
   - conversational implicature
   - conventional implicature
     Gerőcs, Babarczy & Surányi (2014)
Two types of argument:

• the interpretation of structural focus differs from that of the focus particle *csak ’only’* (Onea & Beaver, 2011; Gerőcs, Babarczy & Surányi, 2014 – Experiment 2)

• the interpretation of structural focus does not differ from that of either *prosodic focus* or *neutral sentences* (Kas & Lukács, 2013; Gerőcs, Babarczy & Surányi, 2014 – Experiment 1)

→ exhaustivity is merely a pragmatic implicature in the case of structural focus and prosodic focus alike (in line with Wedgwood 2003, 2005)
Methods used in these experiments were similar:

• different sentence types were presented together
  → Priming effect among structures expressing various kinds of exhaustivity?

• sentence–picture verification tasks
  - binary judgment (true/false): Kas & Lukács (2013); Gerőcs et al. (2014) – Exp. 1
  - yes, and.../yes, but.../no responses: Onea & Beaver (2011)
  → These types of judgment can only distinguish between at-issue and non-at-issue meaning components.
    (cf. Destruel et al. 2015)
The present study

• 3 experiments – 3 sentence types *separately* tested
  same method, procedure, picture stimuli

• 4 age groups (cf. Kas & Lukács, 2013 – 3 groups)

• sentence–picture verification task
  *three-point-scale* instead of binary judgment


• analysis of *reaction time* data in the control group
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Test sentences of Experiment 1–3

Experiment 1. – sentences with csak ‘only’
(3) Csak a nyuszi emelte fel a zászló-t.  
only the rabbit raised up the flag-ACC  
‘Only the rabbit has raised the flag.’

Experiment 2. – sentences with structural focus
(4) A NYUSZI emelte fel a zászló-t.  
the rabbit raised up the flag-ACC  
‘It is the rabbit who has raised the flag.’

Experiment 3. – neutral SVO sentences
(5) A nyuszi fel-emelte a zászló-t.  
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
- three-point-scale
- 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 experiment (Experiment 1, 2, 3)
• 15 preschoolers (mean ages: 5;11, 6;2 and 6;4)
• 15 7-year-olds (mean ages: 7;2, 7;5 and 7;6)
• 15 9-year olds (mean ages: 9;3, 9;7 and 9;8)
• 15 adults (mean ages: 37;5, 42;7 and 22;10)
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Overall responses of adult control groups in the non-exhaustive conditions of Experiment 1–3
Overall responses of preschoolers in the non-exhaustive conditions of Experiment 1–3
Overall responses of 7-year-olds in the non-exhaustive conditions of Experiment 1–3.
Overall responses of 9-year-olds in the non-exhaustive conditions of Experiment 1–3

- csak 'only'
- structural focus
- neutral SVO
Proportion of responses of the non-exhaustive condition of Experiment 2 (structural focus)

Kruskal-Wallis test

***: p < 0.001
Proportion of responses of the true plus distractor condition of Experiment 2 (structural focus)
Reaction time data of adult control groups in Experiment 1–3
Reaction time data of the adult control group in Experiment 2 (structural focus)

• Condition had a significant effect according to One-way repeated-measures ANOVA: 
  \[ F(3,42) = 4.622, \ p = .00699 \]

• Post hoc: paired t-tests with Bonferroni correction
  Significant difference between the exhaustive plus distractor and exhaustive conditions:
  \[ t(14) = 9.8478, \ p < .001 \]

• The RTs of the non-exhaustive condition did not differ significantly from the control conditions.
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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

What type of meaning is the exhaustive meaning of structural focus?

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

• **Context dependent meanings** (conversational implicatures and conversationally-triggered presuppositions) can be excluded, because of the differences between Experiment 1 and 3. (structural focus vs. neutral SVO)
Conventional implicature or presupposition?

Potts (2005):
- CIs are speaker-oriented entailments which are independent of the at-issue entailments.
- CPs are speaker-oriented, backgrounded meanings that are not easily altered by contextual factors.

The analysis of reaction time data does not seem to support the view that there is implicature generation in the case of structural focus.

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

• Csak – assertion

• Structural focus – presupposition
cf. exhaustivity of English cleft constructions
   (Karttunen 1974, Gazdar 1979, Büring and Križ 2013)

• Neutral SVO sentences can also be interpreted exhaustively, however, this is only a pragmatic implicature arising in certain contexts.
References


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