

Exhaustivity of structural focus in Hungarian

Presupposition or implicature?

Lilla Pintér



RESEARCH INSTITUTE FOR LINGUISTICS
HUNGARIAN ACADEMY OF SCIENCES

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- **Background**
- Experiments
- Results
- Discussion
- Conclusion

Background

structural / pre-verbal / identificational focus

- **syntactically** and **prosodically** marked

(1) *Péter meg-vette a ház-at.* Ø 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)

Background

How do sentences containing structural focus express this exhaustive meaning?

1. [+exhaustive] semantic feature

Szabolcsi (1981), É. Kiss (1998)

2. presupposition

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

3. implicature

- conversational implicature

Wedgwood (2003, 2005), Onea & Beaver (2011)

- conventional implicature

Gerőcs, Babarczy & Surányi (2014)

Previous experiments

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)

Previous experiments

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);
Geröcs 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



cf. Katsos & Bishop (2011), Balázs & Babarczy (2014)

- 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

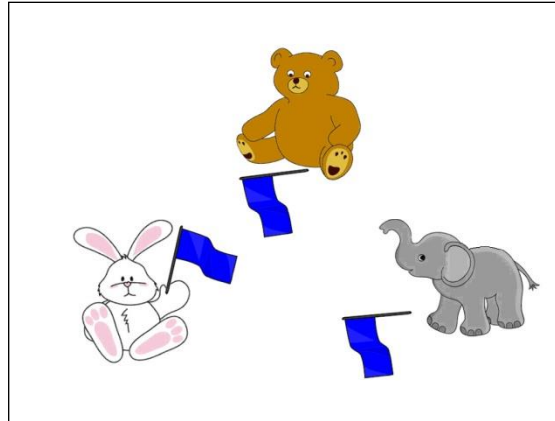
- (4) *A NYUSZI emelte fel a zászló-t.*
the rabbit raised up the flag-ACC
‘It is the rabbit who has raised the flag.’

Experiment 3. – neutral SVO sentences

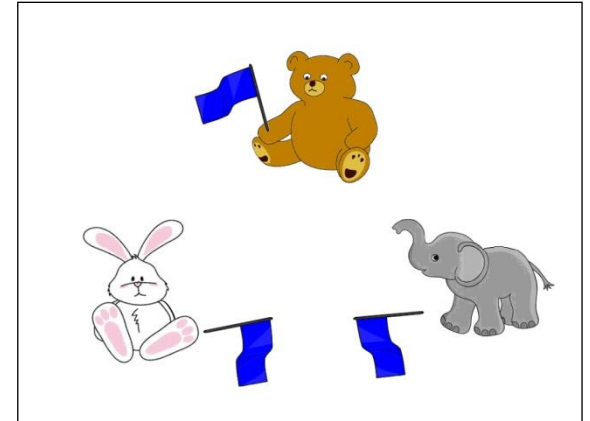
- (5) *A nyuszi fel-emelte a zászló-t.*
the rabbit up-raised the flag-ACC
‘The rabbit has raised the flag.’

Conditions of Experiment 1–3

Control conditions:

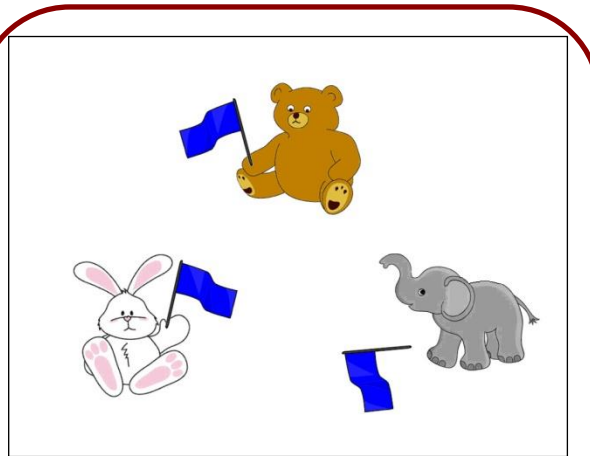


(i) true / exhaustive condition

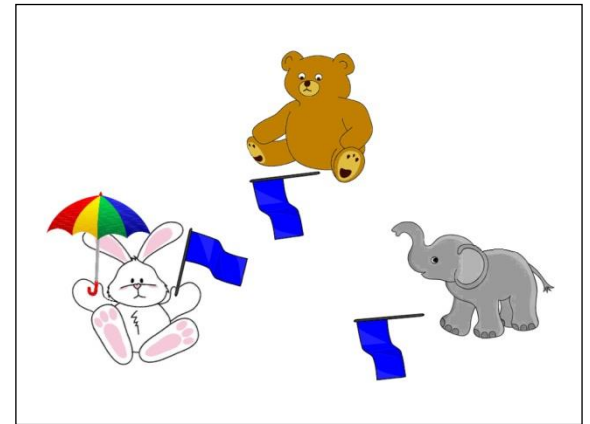


(ii) false condition

Critical conditions:



(iii) non-exhaustive condition



(iv) condition (i) with a distractor

Procedure

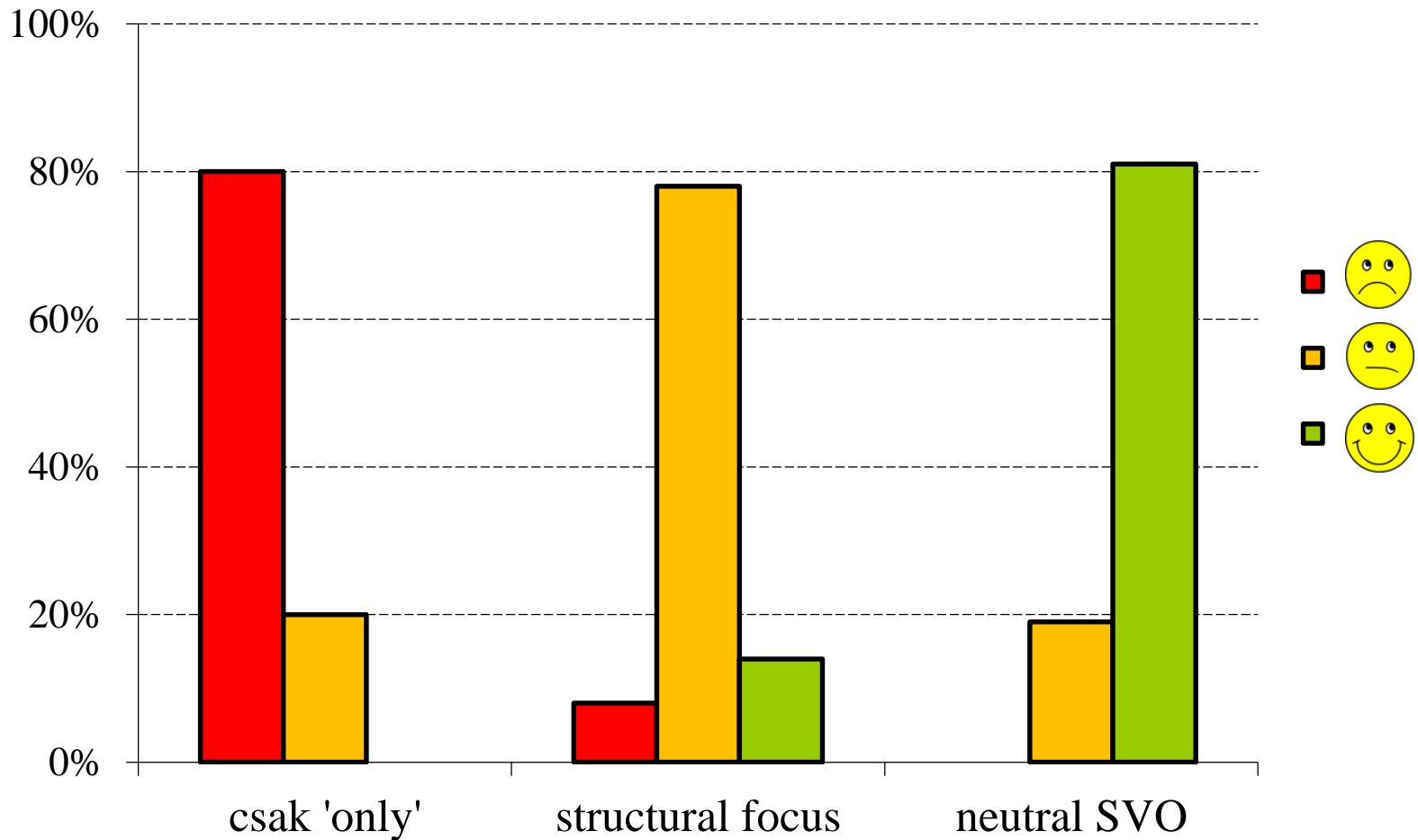
- sentence–picture verification task
- three-point-scale
- 4 conditions x 8 items = **32** test sentence–picture pairs
+ 24 filler sentence–picture pairs
- randomized order, SR Research Experiment Builder
- 2 occasions

Participants

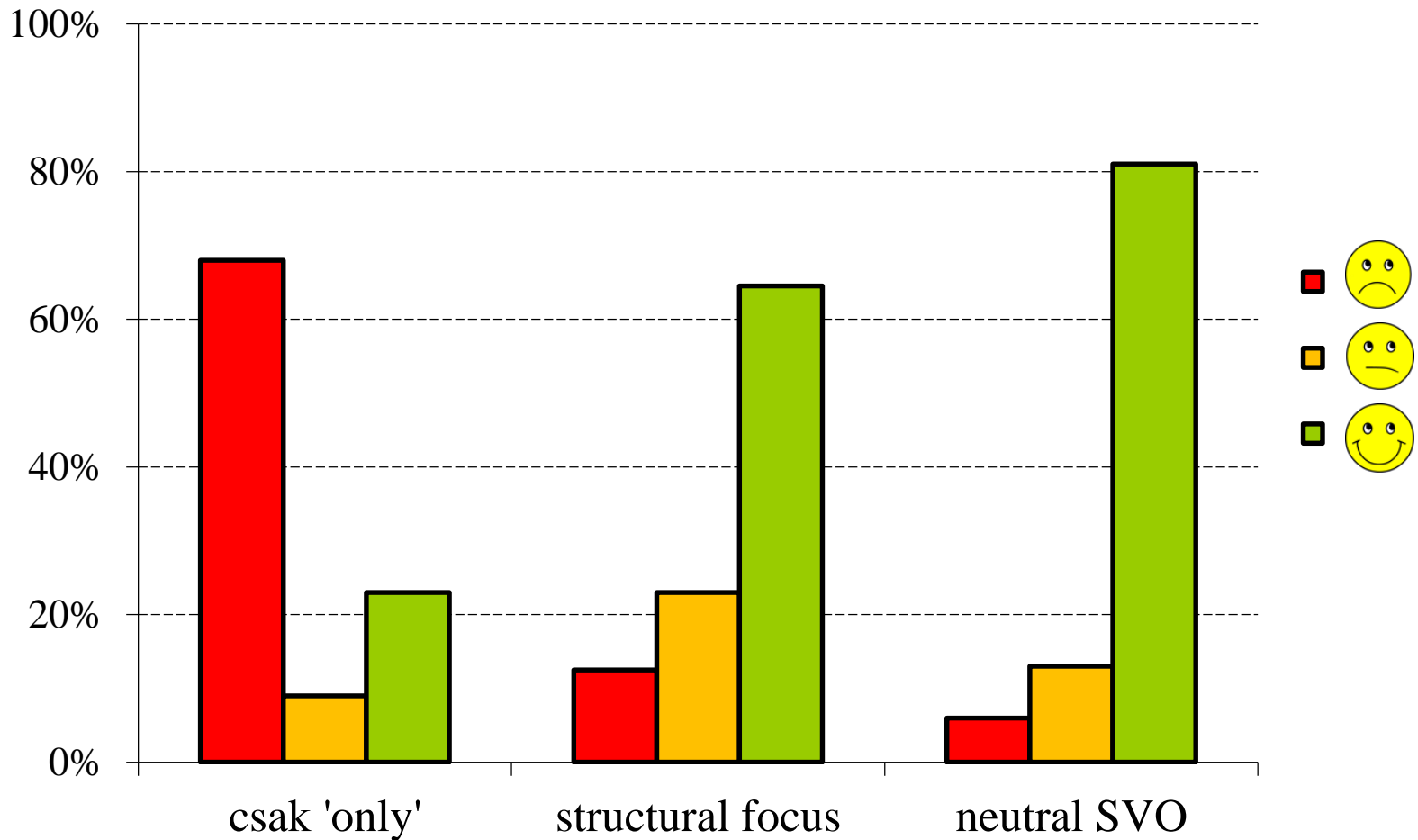
- 4 age groups in each experiment (Experiment 1, 2, 3)
- 15 **preschoolers** (mean ages: 5;11, 6;2 and 6;4)
 - 15 **7-year-olds** (mean ages: 7;2, 7;5 and 7;6)
 - 15 **9-year olds** (mean ages: 9;3, 9;7 and 9;8)
 - 15 **adults** (mean ages: 37;5, 42;7 and 22;10)

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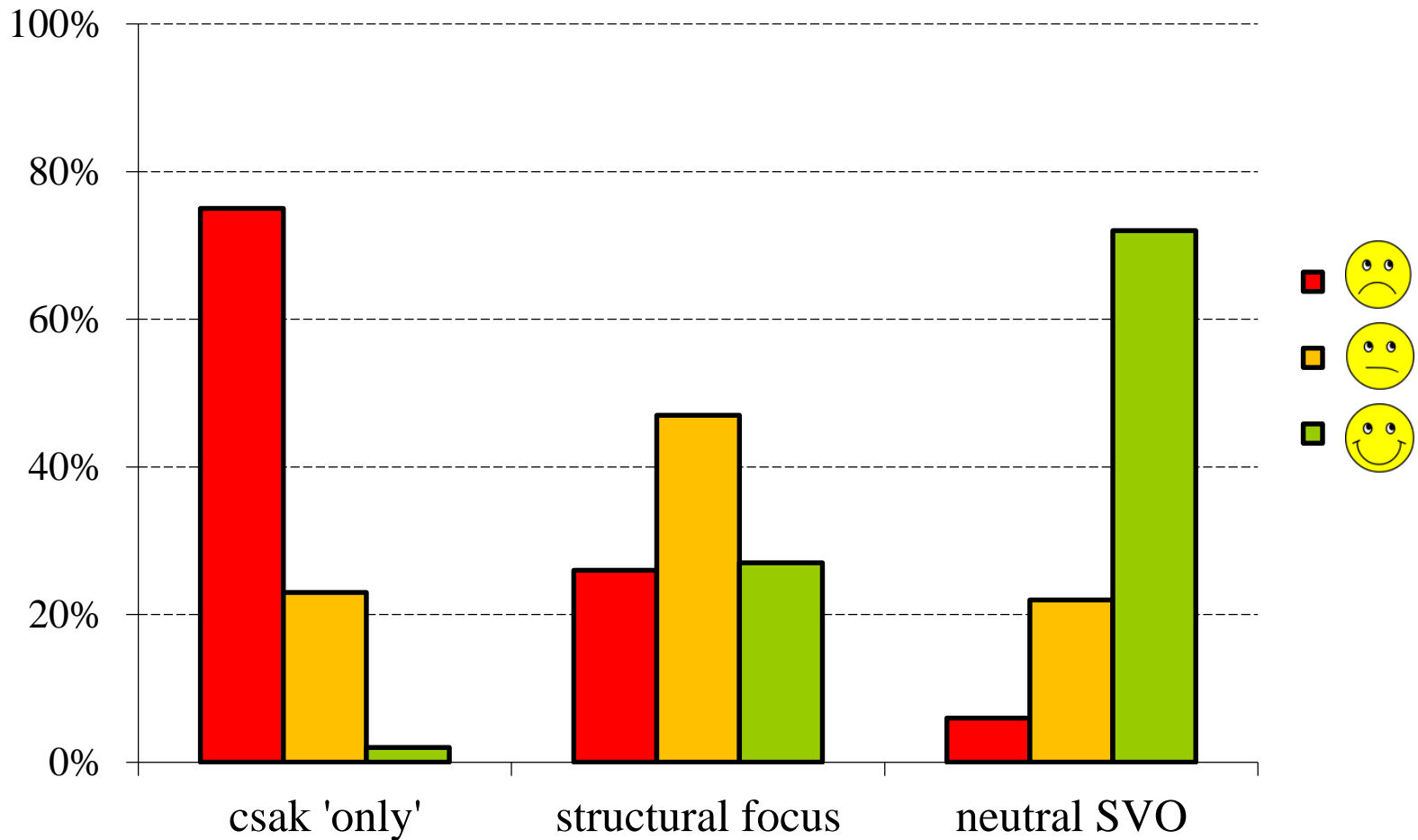
Overall responses of adult control groups in the non-exhaustive conditions of Experiment 1–3



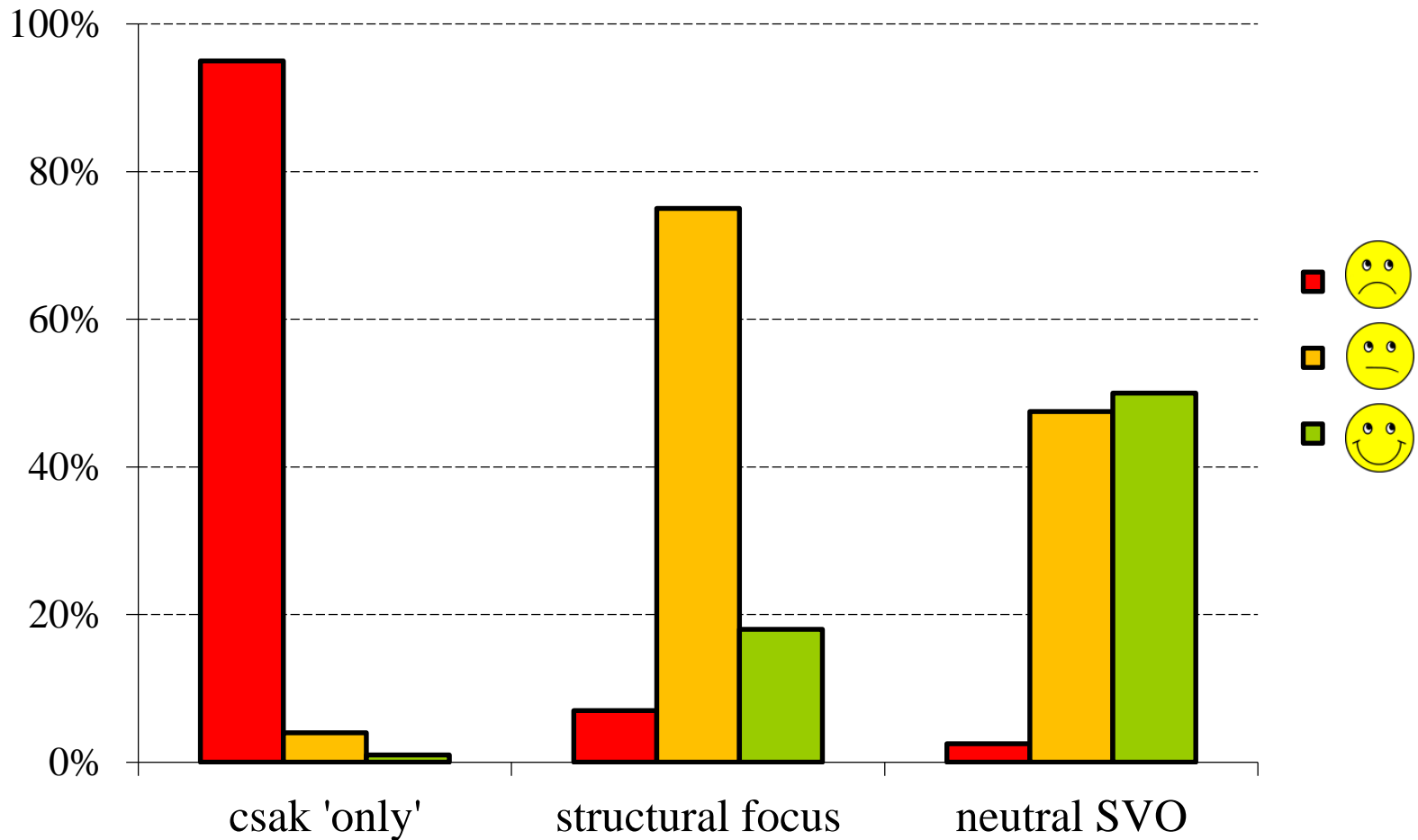
Overall responses of preschoolers in the non-exhaustive conditions of Experiment 1–3



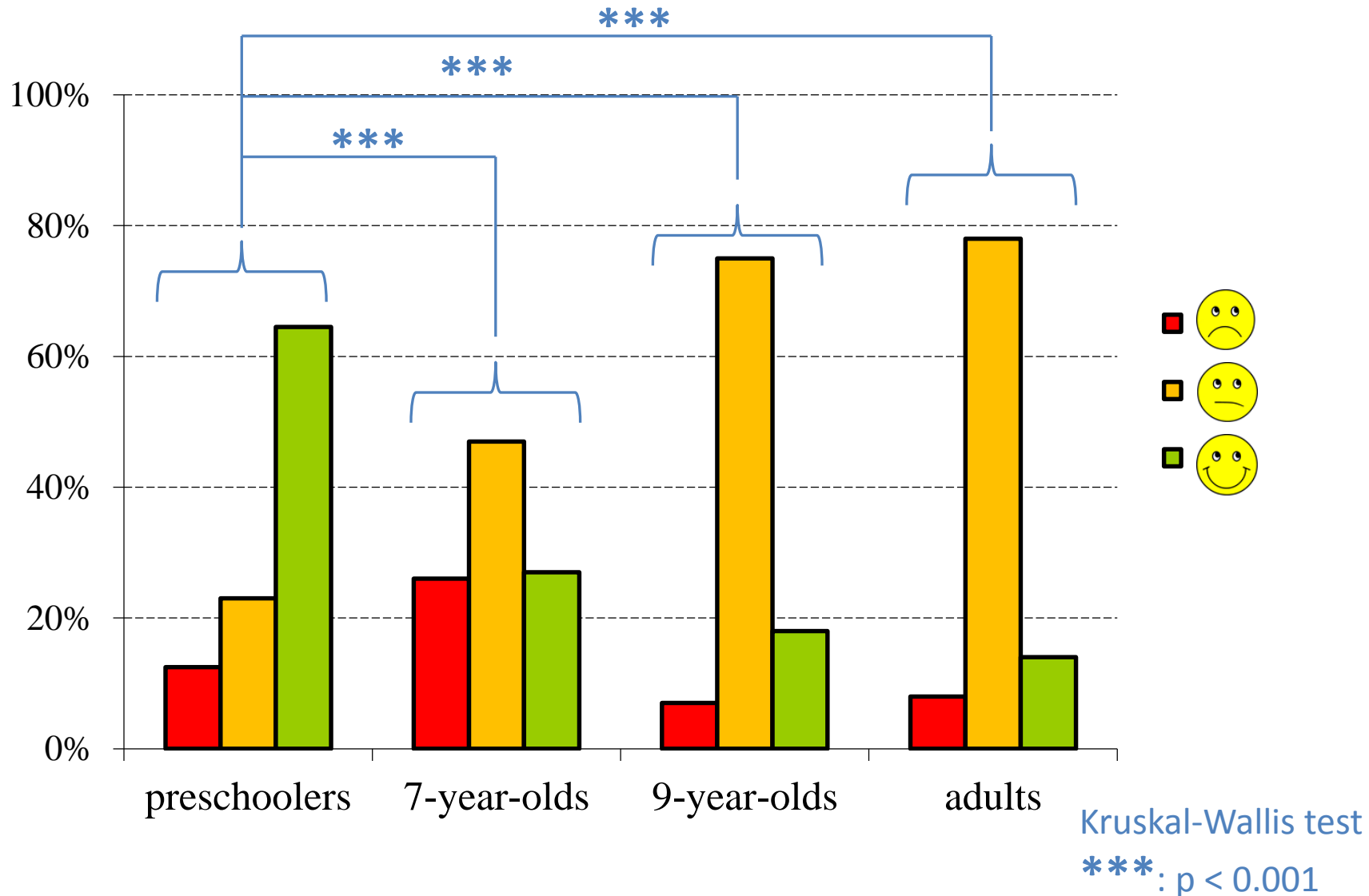
Overall responses of 7-year-olds in the non-exhaustive conditions of Experiment 1–3



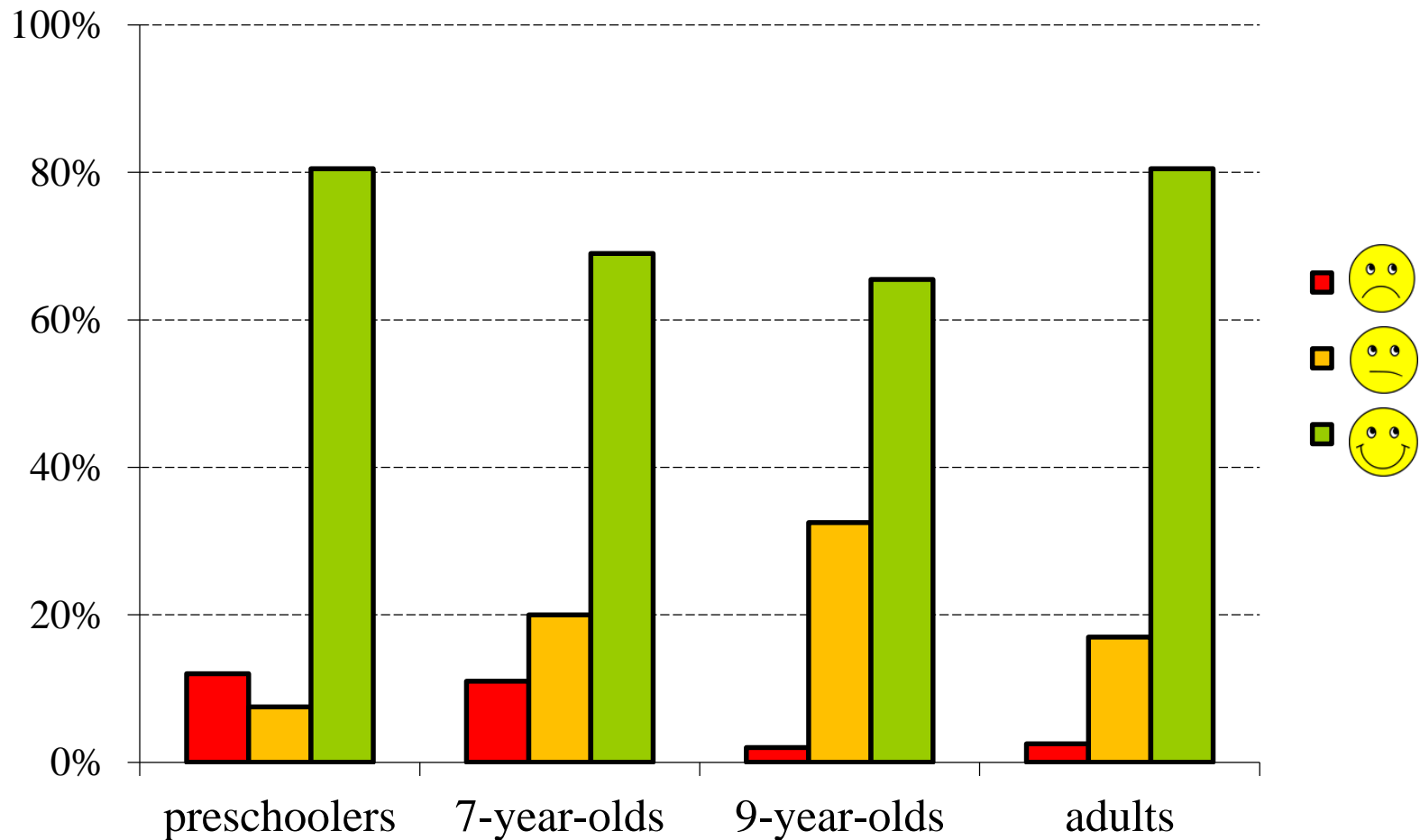
Overall responses of 9-year-olds in the non-exhaustive conditions of Experiment 1–3



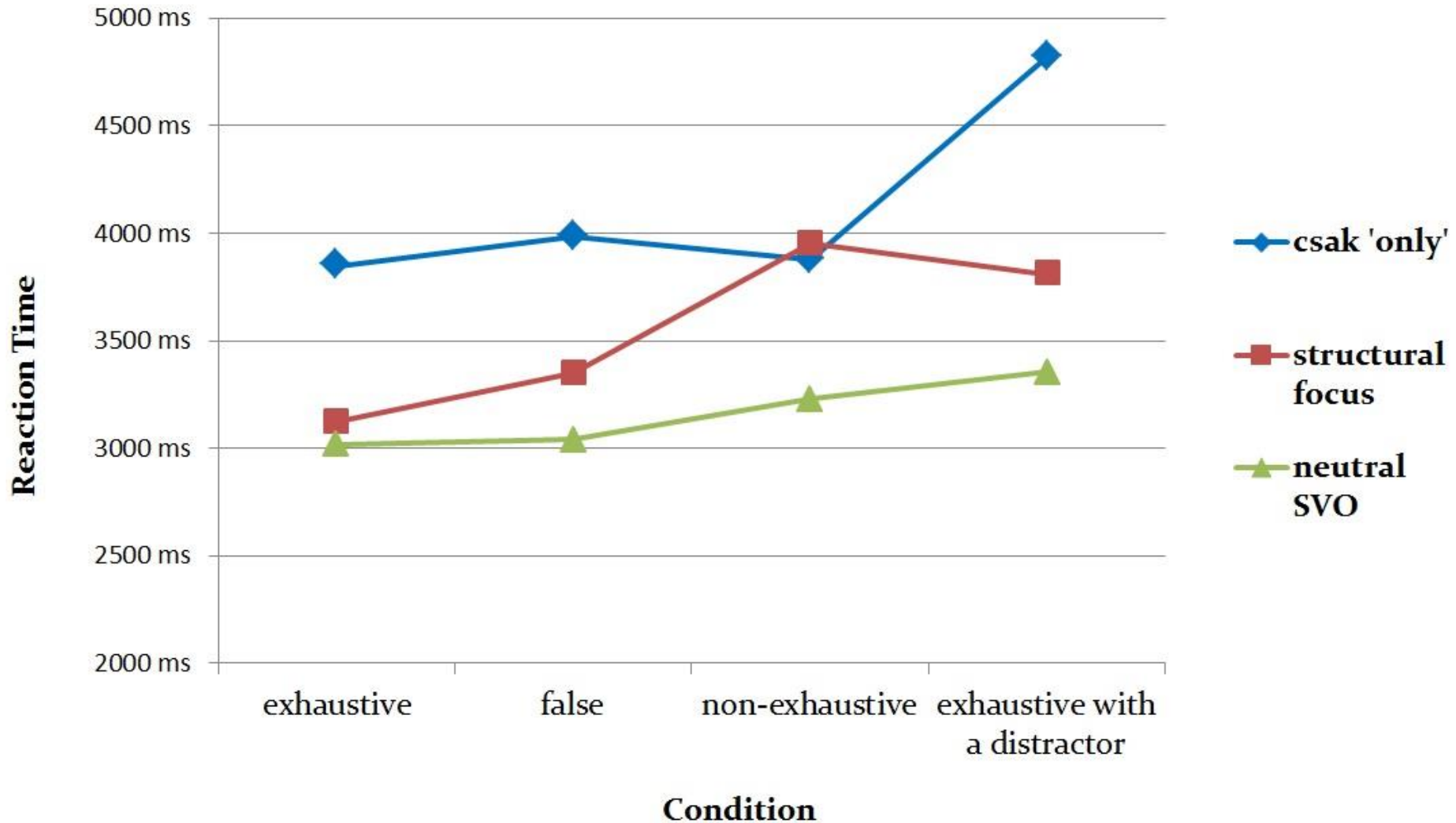
Proportion of responses of the non-exhaustive condition of Experiment 2 (structural focus)



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)

Discussion – The exhaustivity issue

- **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.

cf. Romoli & Schwarz (2015), Schwarz (2015)

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Conclusion

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.

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Thank you for your attention!

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