

Division of labour between polar interrogatives in Hungarian: a study in dialect semantics

Beáta Gyuris, Cecília Sarolta Molnár and Katalin Mády

Research Institute for Linguistics, Budapest

Aims. The paper presents the first experimental study investigating the use conditions of the two matrix polar interrogative form types in Hungarian, in two dialects, and discusses the implications of the study for the investigation of bias in polar questions and the division of labour between forms encoding polar questions.

Data. The two form types of matrix polar interrogatives in Hungarian are illustrated in (1)–(2). (1) is marked by a rise-fall tone (with a peak on the penultimate syllable), and referred to as a \wedge - (rise-fall) I(nterrogative). (Compatibility of \wedge -Is with NPIs, among others, indicates that they are full-fledged interrogatives and not “rising declaratives”.) (2) is marked by the *-e* interrogative particle, and referred to as an *-e*-I(nterrogative).

- | | | | |
|-----|--|-----|---|
| (1) | <i>Esik az eső\wedge?</i>
falls the rain
'Is it raining?' | (2) | <i>Esik-e az eső?</i>
falls-E the rain
'Is it raining?' |
|-----|--|-----|---|

Gyuris (2017) considers *e*-Is to be markers of “evidential anti-bias”, but argues that \wedge -Is are compatible both with neutral contexts and with (non-definitive) evidence for the positive answer. Neither forms are sensitive to the speaker’s previous expectations regarding the answer, or compatible with evidence for $\neg p$. Although there is no published research on dialectal differences between the availability of the two forms, we collected informal evidence indicating that speakers in Western Hungary and in Budapest consider matrix *-e*-Is dispreferred in informal speech, whereas speakers in Eastern Hungary do not. All speakers find *-e*-Is natural in writing.

Previous work. We rely closely on previous theoretical studies on the division of labour between types of polar interrogatives, the role of evidential and epistemic bias, the interaction between the bias profiles of different form types within and across languages, and on experimental studies of the latter phenomena (cf. Büring & Gunlogson 2000, Farkas & Bruce 2010, Farkas & Roelofsen 2017, Ladd 1981, Romero & Han 2004, van Rooij & Šafářová 2003, Sudo 2013, Gärtner & Gyuris 2017, Roelofsen et al. 2013 and Domaneschi et al. 2017).

Aims and hypotheses. The current study investigates the distributions of the two positive interrogative forms more systematically, with the help of speakers from two specific geographical areas, and looks at the consequences of these findings on the division of labour between the two forms. The first group included speakers who grew up and live in Budapest or the surrounding area (Dialect 1, D1). The second group included speakers from Heves county (especially from the area of Gyöngyös), situated in Eastern Hungary (Dialect 2, D2). The following hypotheses were made:

H1: Speakers of D1 disprefer *-e*-Is in neutral contexts and in contexts with evidence for *p*.

H2: Speakers of D1 find \wedge -Is acceptable both in neutral contexts and in contexts with evidence for *p*.

H3: Speakers of D2 disprefer *-e*-Is in contexts with evidence for *p*, but find them as acceptable in neutral contexts as \wedge -Is.

H4: Speakers of D2 find \wedge -Is less acceptable in neutral contexts as in contexts with evidence for *p*.

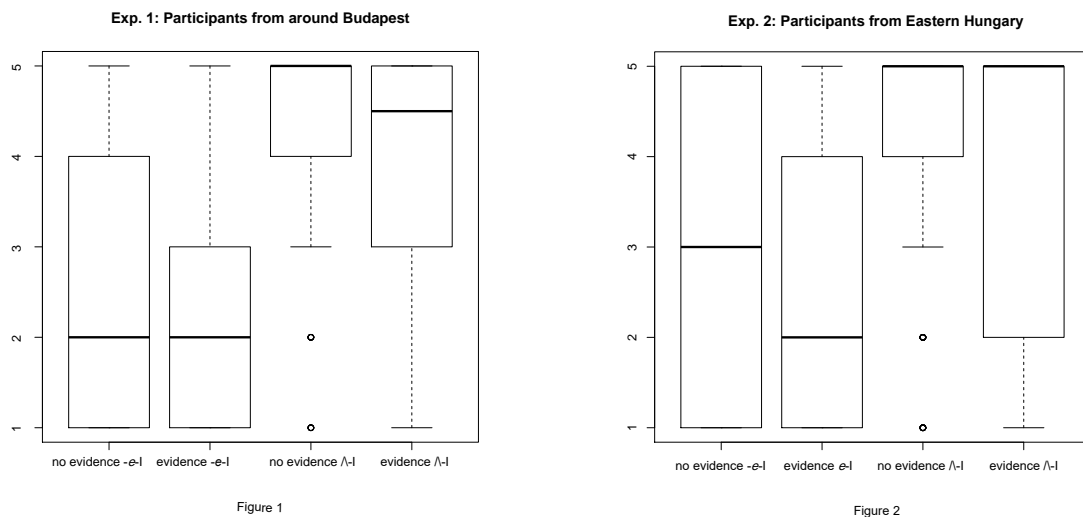
Materials and methods. The hypotheses were tested in two experiments, which used the same materials and methods. Exp. 1 was carried out with speakers of D1, and Exp. 2 with speakers of D2. There were two experimental factors with two levels. Factor 1: evidential bias for *p* vs. neutral context, Factor 2: \wedge -I vs. *-e*-I.

Each item consisted of a context description (presented in writing), followed by one interrogative form (presented aurally). Participants had to judge how natural the form sounded in the context, by giving it a rating between 1 (unnatural) and 5 (completely natural). Data were collected via an online query form, including 24 experimental trials and 32 fillers. The number of participants was 40 in Exp. 1 and 32 in Exp. 2. Linear mixed-effect models with random intercepts were fitted to the data with question and evidence as fixed effects and participant and situation as random effects. (3) illustrates two question forms used, and (4) the corresponding context descriptions, representing evidential bias for *p* and a neutral context, respectively.

- | | |
|-----|--|
| (3) | a. Megkaptad-e az okostelefon a születésnapodra?
VM.received-E the smartphone.ACC the birthday.your.onto
'Did you receive a smartphone for your birthday?' |
| | b. Megkaptad az okostelefon a születésnapodra \wedge ?
'Did you receive a smartphone for your birthday?' |

- (4) A hétvégén volt Peti osztálytársam születésnapja. Tudom, hogy okostelefont kért a szüleitől.
 ‘My friend Peti had a birthday last weekend. I know that he asked his parents for a smartphone.’
- Amikor hétfőn belépek az osztályba, azt látom, hogy Peti fülig érő szájjal nyomogat egy telefont. A következőt kérdezem tőle:
 ‘When I enter the classroom on Monday I can see that he is busy playing with a phone, smiling. I ask him the following:’
 - Amikor hétfőn belépek az osztályba, azt látom, hogy Peti épp a táskájában kotorászik. A következőt kérdezem tőle:
 ‘When I enter the classroom on Monday I can see that he is busy searching through his bag. I ask him the following:’

Results: In both experiments, \wedge -Is were clearly preferred to $-e$ -Is (difference in medians: 3 scores, $t = 26.02$, $p < 0.001$ in Exp. 1, and $t = 5.09$, $p < 0.001$ in Exp. 2). $-e$ -Is generally received low ratings both in the absence and in the presence of evidence for p (medians = 2 and 2 in Exp. 1, and 3 and 2 in Exp. 2, respectively). However, if only $-e$ -Is are analysed, their overall rating in the absence of evidence is significantly higher (difference: 1 score, $t = -7.49$, $p < 0.001$ in Exp. 1 and 1 score, $t = -4.52$, $p < 0.001$ in Exp. 2). In both experiments, both forms received higher scores in the absence of evidence for p than in its presence. For \wedge -Is, the effect of evidence is significant in both experiments ($t = -6.017$, $p < 0.001$ in Exp. 1, and $t = -4.642$, $p < 0.001$ in Exp. 2). The medians of the scores assigned in the two experiments are shown in Figures 1 and 2, respectively.



Discussion. The results show a more differentiated picture regarding the evaluation of the two forms in the two dialects than expected. Although D1 speakers did assign low scores to $-e$ -Is in both contexts, thus H1 was confirmed, the scores differed significantly. H3 was not confirmed, since D2 speakers did not find $-e$ -Is as acceptable in neutral contexts as \wedge -Is, although the scores for the former also differed significantly in the two contexts. This shows that the speakers of both dialects are sensitive to the presence of evidence in the case of $-e$ -Is. The role of possible further factors (e.g. item, speaker age) will be addressed in the talk. The scores for \wedge -Is are relatively high in both dialects in both contexts. Thus, H2 is confirmed, although the difference between the ratings of the form in the two contexts is still significant. H4 is not confirmed. The fact that \wedge -Is are rated lower in contexts with evidence for p will be argued to be due to blocking by a string-identical \wedge -declarative.

References. Büring, D. & Gunlogson, C. 2000. Aren't positive and negative polar questions the same? Ms. • Domanesci, F. et al. 2017. Bias in polar questions. *Glossa*. • Farkas, D. & Bruce, K. 2010. On reacting to assertions and polar questions. *JoS*. • Farkas, D. & F. Roelofsen 2017. Division of labor in the interpretation of declaratives and interrogatives. *JoS*. • Gärtner, H-M. & B. Gyuris 2017. On Delimiting the Space of Bias Profiles for Polar Interrogatives. *Ling. Berichte* 251:293-316. • Gyuris, B. 2017 New perspectives on bias in polar questions. A study of Hungarian $-e$. *IRP*. • Ladd, D. R. 1981. A first look at the semantics and pragmatics of negative questions and tag questions. *CLS* 17. • Roelofsen, F. et al. 2013. Positive and negative questions in discourse. *SuB* 17. • Romero, M. and Han, C.-H. 2004. On negative yes/no questions. *L & Ph*. • Sudo, Y. 2013.

Biased polar questions in English and Japanese. In Gutzmann, D. & Gärtner, H.-M. (eds.) *Beyond Expressives*. Brill. • van Rooij, R. & Šafářová, M. 2003. On polar questions. *SALT XIII*.