The pragmatic effects of Macedonian *li*: An empirical study

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Issue. In Macedonian, three types of Polar Questions can be distinguished, as shown in (1).

(1) a. Ima   Pepsi?   [Intonation Question (IntQ)]
         have.3SG Pepsi
         'Is there pepsi?'
     b. Dali ima   Pepsi?   [Dali Question (DaliQ)]
         Q   have.3sg Pepsi
         'Is there Pepsi?'
     c. Pepsi li ima?   [Li Question (LiQ)]
         Pepsi LI have.3SG
         'Is there PEPSI?'[1]   (Rudin et al 1999 :579)

This paper is concerned with the semantic-pragmatic licensing of the optional particle *li*. Although several suggestions have been proposed in the literature (e.g. *li* marks focus, *li*-questions are rhetorical, rejective, or add a 'perhaps'-feeling (Englund 1979, Rudin et al. 1999)), the precise pragmatic contribution of *li* has remained an open question.

Goal. We build on the syntax-semantics literature, in which *li* is taken to be a focus particle (Lazarova-Nikovska 2003, Schwabe 2004, Tomić 2012) and (i) provide empirical data as to show what focus effect *li* precisely conveys, and (ii) propose a novel account in which we argue that *li*-focus ultimately indicates the shape of the Question Under Discussion (QUD)

Hypotheses. For our study, we considered two hypotheses, (i) *li* contributes EXCLUSIVITY (i.e., only one proposition among the set of propositions denoted by the question (à la Hamblin 1976) can be true), and (ii) *li* shapes the QUD, bringing about a feeling of SURPRISE (in this study: a polarity mismatch in EPISTEMIC and EVIDENTIAL bias (Sudo 2010)).

Methods. We tested the pragmatic contribution of *li* in a rating study. Each trial consisted of a context followed by a question. Participants were asked to rate a question's naturalness in a specific context on a 1(min)-5(max) scale. Two factors were manipulated. Firstly, the form of the target question, which came in three conditions: LiQ, DaliQ and CleftQ.[2] The second factor was the context type, which also came in three conditions: Exclusive+Surprise (E+S), Non-Exclusive+Surprise (NE+S) and Neutral (N). To test whether *li*-focus contributes EXCLUSIVITY, we compared the ratings of li-Qs in NE+S to the ratings in E+S. To test for SURPRISE, we compared the NE+S and E+S to N. An example of a trial is given in (2): a translation of a E+S context followed by a LiQ.

(2) a. You are celebrating Vasilica with your family, when the pogača is being shared. Traditionally, there is a coin in the pogača and whoever finds it will have a prosperous year. Suddenly your aunt, who always has bad luck, lets out a scream. You ask her:

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[1] *Li* can cliticize to both verbs and XPs. In this experiment we only consider XP-*li*.
[2] CleftQs are not be discussed in this abstract for length reasons.

b. Tebe   li ti   padna   pari-čka-ta?
   2SG.DAT.PRO LI 2SG.DAT.CL fall.3SG.PRES money-DIM-DEF.F
   'Did YOU get the coin?'

27 experimental items were distributed in 7 lists with a Latin Square Design, together with 8 fillers that served as controls and 2 practice items. 49 native speakers of Macedonian participated online via soscisurvey.de (Leiner 2014). For each subject age, dialectal background and current location were documented and controlled for.

Results. The relevant average ratings are plotted in Figure 1. A mixed effect model revealed significant effects of Question Type, Context Type, and the combination of those two. We followed up with pairwise comparisons, concentrating on our hypotheses. For EXCLUSIVITY, no effects were found, that is, there were no significant differences between the rating of LiQs and DaliQs in E+S and EN+S contexts. For SURPRISE, a significant contrast emerged: LiQs were rated higher in E+S than in N (p<.001), and LiQs were rated higher in EN+S than in N (p<.01). Furthermore, the rating of DaliQs, was stable across the board (mean: 3.45), as was, surprisingly, the rating of CleftQs (mean: 2.96).
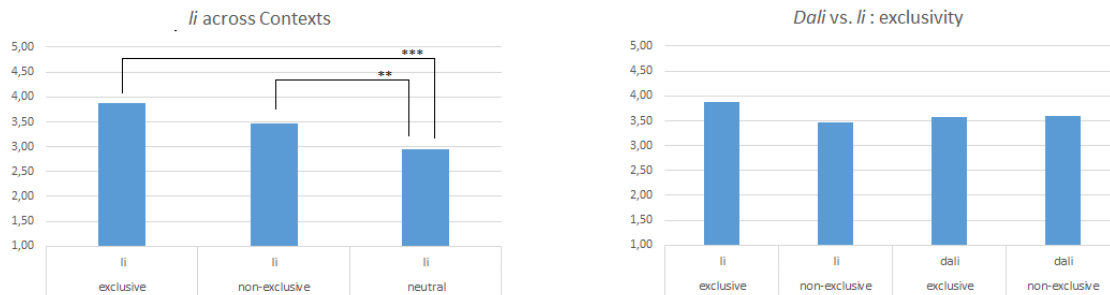

Figure 1: relevant results

Discussion. We conclude that SURPRISE licenses LiQs. We argue that this is not inherent to the meaning of the particle *li*, but rather a result of its function, that we propose to be indicating the shape of the QUD. We follow (Biezma 2009) who proposed a similar analysis for the focal accent in English Polar Questions, as illustrated in (3).

(3)   a.   Did ALFRED play cards? → QUD = Who played cards?
      b.   Did Alfred play CARDS? → QUD = What did Alfred play?

Examples (3-a) and (3-b) are branches of different QUDs. We propose that this effect is exactly the effect that *li* conveys, which (i) accounts for our empirical data, (ii) can be easily integrated in existing syntactic accounts of *li*, and (iii) accounts for the intuitions described in the literature, such as that *li* prompts a negative answer.

Finally, we want to point out that the results of our study do not only provide insight in the usage of *li* in Macedonian, but also open a window into the realization of focus. Concerning the final issue, a natural question for follow-up research is how the labour is divided between focus particles and prosodic cues in marking focus in Macedonian.

Selected References. Biezma. (2009) Alternative vs polar questions: the cornering effect ♦ Kuznetsova et al. (2016) Tests in linear mixed e-ects models. Package 'lmerTest'. ♦

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