Perceiving the prosody of question focus scope in Korean

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Prosody in Korean is associated with grammatical mood and can also disambiguate open and polar questions in sentences with ambiguous content pro-forms (1).

 (1) halmeni-kkeyse nwukwu-lul manna-syess-eyo grandmother-SBJ.HON who/someone-OBJ meet-HON.PST-POL Declarative: 'Grandmother met someone.'
Open: 'Who did grandmother meet?' Polar: 'Did grandmother meet someone?

Jun & Oh (1996) accounted for the disambiguation of open and polar questions by the placement of accentual phrase (AccP) boundaries. Later work by Jones (2016) showed that AccP boundaries alone cannot account for cases where the content pro-form is not adjacent to the verb. Jones proposed an account including a prosodic feature *expanded pitch range* and generated a formal syntactic analysis using Lexical Functional Grammar.

Although the concept of expanded pitch range is intuitively simple, coming up with a specific definition is more difficult. We undertook an online pilot gating study to identify whether prosodic focus alone allowed hearers to disambiguate between statements, open questions and polar question. The pilot results show that statements and open questions were ultimately reliably disambiguated, and that for open questions, focus prosody at the content pro-form often allowed disambiguation even before the possibility of post-focus compression was available. The picture for polar questions is more complicated. Similar to statements, there was a tendency to identify the utterance as an open question once the content pro-form had been heard, but ultimately disambiguation was not reliably successful.

We report the results of our full experiment, which investigates how the magnitude of pitch expansion affects the reliability and point of disambiguation. Test stimuli are based on index utterances produced by native speakers, with the F0 contour resynthesised following the methodology of Ritter & Grice (2015) to produce four variants of each open and polar question stimulus. We hypothesise that there is a minimum degree of pitch expansion required to convey focus reliably.

References: • Jones, S. (2016). The syntax-prosody interface in Korean: resolving ambiguity in questions. DOI:10.20248/hpsg.2016.17 • Jun, S.-A. and Oh, M. (1996). A prosodic analysis of three types of wh-phrases in Korean. *Language and Speech* 39(1), 37–61. • Ritter, S. and Grice, M. (2015). The role of tonal onglides in German nuclear pitch accents. DOI: 10.1177/0023830914565688