1. North Koreans in Seoul

- North Korea and South Korea were separated after World War II and underwent independent linguistic development but the economic hardship in the 1990s led to a large influx of North Koreans to South.
- As of September 2017, 31,093 North Korean settlers are in South Korea; 71% are female and 64% live in Seoul Metropolitan Area; 70% are from Hamkyeong (northeastern region of North Korea) (Ministry of Unification 2017)
- While the languages of the two Koreas are mutually intelligible, there are lexical, phonological, and phonetic differences, some highly salient, and many North Korean settlers report experience of discrimination or embarrassment due to their language (Chung 2001, Yang 2013).
- This study focuses on the speakers from the Northern Hamkyeong region of North Korea residing in Seoul Metropolitan area.
- Goals:
  - Description of an understudied dialect of Korean
  - A case study of dialect contact-induced change (Dialect acquisition)

2. Dialect Acquisition

- Adult speakers continue to change their speech throughout their lifespan adapting to the changing linguistic environments.
- Adults who move to a new dialect area acquire speech characteristics of the new dialect but linguistic, attitudinal, and cognitive factors that condition the change are not fully understood. (Shockey 1984, Munro, Derwing, & Flege 1999, Sankoff 2004, Evans & Iverson 2007, Nyzc 2011, 2015, Walker 2014, Yun & Kang 2018).
- Length of residence (LOR) effect
  - The length of residence in the new dialect region, the more closely the new dialect target is approximated (Zilik 2012).
  - Other things being equal, North Korean speakers who have been in Seoul longer are predicted to show more Seoul-like production.
- Word-specific effect
  - Exemplar model (Pierrehumbert 2016 for a recent review) and Usage-based model (Bybee 2001) assume word-specific phonetic representations. Words' phonetic representations can retain word-specific differences and also be constrained by shared phonological category labels (a top-down effect).
  - Depending on the specific tokens of words speakers experience, words can manifest different phonetic effects (Yaeger-Dror 1996, Hay et al. 2016) and are affected differently in the acquisition of new dialect phonological/phonetic features (Pesqueria 2008; Nyzc 2011; Lee 2016).
  - If speakers’ production reflects word-specific experience, North Korean speakers are predicted to produce new words they learned in South Korea as more Seoul-like than words used in North Korea only.
  - If contact-induced changes affect the phonological categories, not specific words, words of comparable phonological structure will be produced similarly.

3. Methods

- Speakers: recruited in Seoul, December 2016 ~ January 2017
- Dialect: Hamkyeong (HK) [4M 31F Seoul (SK) 10M 10F]
- Age (40 yrs.)
  - old (18) young (17) old (10) young (10)
- LOR (3 yrs.)
  - long (9) long (10) short (9) short (7)
- Materials: 92 containing target structures expected to differ by dialects
- lenis vs. aspirated stops: Affricate POA /f/ vs. /f/ /o/ vs. /o/
- SK VOT merger in progress: More posterior Merged /f/ higher than /f/
- HK Large VOT difference: More anterior Contrast /a/ higher than /a/
- Word origin: Northern & Southern
  - stop-initial words: 79 Northern & 7 Southern
  - stop-initial words: //-/initial words
- Task: word reading with 2 rep.'s; embedded in a larger list blocked by word origin
- Acoustic analysis: stop VOT, affricate COG (mid 10 ms of frication, female only), vowel F1 & F2 (normalized by speaker)
- Statistical analysis: Mixed effects linear regressions for each stop type
  - Fixed effects: DIALECT (Short LOR vs. Long LOR vs. SK), AGE (Old vs. Young), Word origin (Northern vs. Southern), & interactions
  - Random effects: Word, Subject

4. Results

- Stop VOT
  - Fortis
  - Dialect LOR
  - Age
  - SK
  - Expected dialect differences confirmed; larger difference in VOT between lenis and aspirated stops in HK
  - In HK, younger speakers produce long VOTs for lenis (= similar to SK)
  - HK speakers with long LOR produce shorter VOTs for aspirated (= similar to SK)

- Word origin
  - n.s.
  - Short > Long
  - No word-specific effect

5. Conclusion

- Dialect differences predicted based on cognate dialects are confirmed.
- We found a number of age-conditioned changes in HK, in the same direction as change toward SK. It is not clear whether this is a case of younger speakers quicker to adopt to SK or a reflecting of independent HK-internal sound change.
- The only effect of LOR is found in aspirated stop VOTs.
- No evidence of word-specific effect. In this laboratory-based word reading task, a top-down effect of shared phonological categories trumps potential effects of word-specific phonetic representations.