# BEING NORTH KOREAN IN KOREATOWN: THE ROLE OF IDENTITY & EXPERIENCE IN ACCOMMODATION IN THE LONDON NORTH KOREAN COMMUNITY

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#### **ABSTRACT**

North Korean refugees living in South Korea frequently adopt a Standard Seoul accent to avoid stigmatization, but in New Malden (London, UK), they are an active part of the large Korean community. In this study, we investigate accommodation in North Koreans in New Malden, focussing on the vowel /\(\Lambda\)/, which is produced differently in North and South Korean accents.

Results demonstrate that whilst age of arrival in South Korea affects production of /n/, identity drives the outcome of accommodation. In read speech, those who left North Korea before age 16yrs (early leavers) patterned more closely with South Koreans than did late leavers. However, in a conversational task, both groups diverged from rather than converged to their South Korean interlocutor. Interview responses showed a clear sense of solidarity within the New Malden North Korean community and we argue that these speakers used this variable to reclaim and index their North Korean identity.

**Keywords**: accommodation, D2 acquisition, sociophonetics, speech production, Korean.

## 1. INTRODUCTION

It is well-known that speakers of different regional accents modify their speech when living in a community where that accent is not commonly spoken (e.g., [1]). Such behaviour typically manifests as convergence, where speakers modify their accent to sound more like that of speakers in their new community. This may be to make themselves more easily understood – speakers might avoid variants that are markedly regional or unusual to facilitate communication (e.g., [2]) – but may also be for social reasons (see [3] for a review). Speakers who have moved to a new community may adopt features of the accent of their new community in order to better fit in and perhaps even to show belonging to their new community (e.g., [4]). Indeed, such short-term accommodation has been hypothesized to be a basis for second dialect (D2) acquisition (e.g., [1]).

Changing one's accent may be particularly important in a community where speakers are both

easily identifiable from their accent and discriminated against as a result of their background. In South Korea, North Koreans who have defected to the South are typically stigmatized as a result of their sociopolitical background [5]. To hide their identity and pass as non-North Korean, they often report trying to lose their distinctive northern accent and adopt Standard South Korean (SK), the prestige accent spoken in Seoul (e.g., [5]). Contemporary SK is typically described as having a 7-vowel system /i e a  $\Lambda$  o u w/, where /e/ is the result of an /e/ and /e/ merger that took place over the past century [6, 7]. North Korean (NK) accents, in contrast, have not undergone an  $/e/-/\epsilon/$  merger [8]. Further, in the northeast, where our participants came from, /A/ is raised (i.e., produced with a much lower F1) such that it overlaps with /o/ [9].

The present study focuses on a group of NK speakers in New Malden, London, who initially defected to South Korea but who then sought asylum in the UK. Due to the stigma they experience and the difficulties they face in building relationships in South Korea, some North Koreans emigrate to other countries in pursuit of a better life [10]. New Malden is attractive because it has the largest concentration of Koreans in Europe (8,000-10,000; [11]) and, although dominated by South Koreans, is also home to the largest population of North Korean refugees in the world (approx. 1,000; [12]). These refugees typically work in the many Korean-run businesses and are relied upon by many South Koreans to staff their businesses [12], despite ongoing tensions between North and South Koreans. North Koreans have also become increasingly visible and active within the community, e.g., establishing their own community schools. In a community where the two Koreans sometimes make strategic alliances in order to survive as minority groups in the UK, New Malden presents a unique sociolinguistic environment for the Korean language that contrasts with that in South Korea.

Of interest in our study, is (1) whether NK speakers living in New Malden have acquired and continue to use SK-like vowels and (2) given the different relationship between North and South Koreans in New Malden, if they continue to

accommodate towards SK speakers in a conversational speech task (Diapix: [13]). We focus on /\(\lambda\), a vowel that differs markedly in NK and SK accents. Given that previous research has suggested that earlier is better in terms of native-like acquisition of a D2 [14], we were also interested in whether those who had left North Korea during their childhood used more native-like SK vowels than those who had left later in life, i.e., in early adulthood.

#### 2. METHOD

## 2.1. Participants

Ten female NK speakers, aged 27–45yrs, were recruited through a Korean school in New Malden, which runs Saturday classes in Korean language and culture for the children of North and South Koreans. All NK participants were refugees who had sought political asylum in the UK: 5 had left North Korea before age 16 (early NK leavers; ENK) and 5 after age 16 (late NK leavers; LNK). The participants were known to the second author, a native SK speaker who had been living in New Malden for 1 year. This was important for recruitment; many NK speakers are concerned that taking part in research could result in reprisals for family who remain in North Korea and so great care was taken to reassure them about the aims of the project.

A male SK confederate was recruited for the Diapix task. This speaker was known to all NK participants. He was aged 53yrs, was born in Busan, South Korea and had spent his childhood in both Seoul and Busan before moving to Seoul for university and work. He moved to Bristol, UK for further study 12 years ago, and at the time of testing, had been living in New Malden for 6 years.

In addition, 4 SK-speaking female teachers from the school, aged 30–45yrs, completed the read speech tasks for comparison.

# 2.2. Stimuli & Materials

All recordings and interviews took place in a quiet room in a Korean community café in New Malden. Recordings were made using a Roland R-09 recorder at a sampling rate of 44.1 kHz, 16-bit resolution and were then transferred directly to a laptop for analysis.

Wordlist & Read passage. The wordlist consisted of 24 bisyllabic words; 8 monophthongs (/i e ε a o Λ u ш/) covering the Korean vowel space in 3 phonetic contexts, /hVdV(C)/, /sVgV(C)/ and /kVbV(C)/. Vowels were embedded in the 1<sup>st</sup> syllable of each word. To enable the use of real words, the 2<sup>nd</sup> syllable of a small number of words (N=4) differed through addition of an extra consonant in the onset of the 2<sup>nd</sup> syllable. The read passage was the Korean translation

of the Aesop fable, "The North Wind and the Sun", which contains all vowels in multiple phonetic contexts.

Diapix. Three Diapix scenes, a Beach, Farm and Street scene, were selected from the DiapixUK materials [13] and adapted for use in this study. These scenes were chosen because it was possible to adapt them to include multiple instances of the target vowel, /Δ/. Words in the pictures were changed into Korean script and object layers modified, e.g., by changing colours, so that all pictures included 3-5 items that were represented by words that included the target variable. All pictures contained 10 differences (reduced from 12 in DiapixUK [13]).

#### 2.3 Procedure

*Recordings.* SK speakers, including the confederate, recorded the wordlist and read passage. NK speakers first recorded the wordlist and read passage. They were then introduced to the confederate before completing the Diapix task.

The wordlist was presented in a randomized order via PowerPoint. To avoid list effects, each word was presented on a separate slide. Participants were recorded producing 1 clean repetition of each word, i.e., good voice quality, no hesitation. The read passage was presented on a laminated sheet of paper. Participants were given time to read through the passage before being instructed to read the passage aloud at their normal reading speed.

The 3 Diapix scenes were completed in a randomized order. The experimenter explained that they had 10 minutes to spot the differences for each scene, that they were not to show each other their pictures but instead were to communicate verbally to describe the pictures. Participants were told to start in the top left corner of the picture and to work clockwise. Pictures were presented on laminated pieces of paper; participants were instructed to circle the differences using the marker pen provided and to shout "all found" when they had finished spotting the differences. As soon as they had spotted all the differences they were instructed to move to the next scene. If they did not finish within the allotted time, they were stopped by the experimenter and told to move on to the next scene (N=10). Before completing the experiment, the NK participants did not know that the SK speaker was acting as a confederate. The confederate himself was instructed to behave in a way that did not indicate that he knew the answers (cf. [15]).

After a short break, NK participants completed a questionnaire which included key personal information, factors affecting language use (length of residence in North and South Korea and the UK; use

of Korean; attitudes towards NK and SK). This formed the basis of a short, informal interview. Interviews were not recorded due to the sensitive nature of the community, but any important information was noted.

All testing was carried out by the second author.

Analysis. For the wordlist, a total of 360 tokens were analyzed. Tokens were manually segmented in Praat [16]. F1 and F2 values were measured at the vowel midpoint for each target word. The read passage was segmented using a Korean forced aligner [17] and F1 and F2 values for /A/ were extracted (N=180). For Diapix, recordings were transcribed using the transcription function in Office 365 and then hand-checked for errors. F1 and F2 values for  $/\Lambda$ that were not in a nasal or liquid context were manually extracted (N=601). For all data, formant measures that were over 2 standard deviations outside the F1 or F2 mean per vowel for either NK or SK speakers were checked and hand-corrected if necessary. Data were normalized using Nearey2 [18]: vowels from the passage and Diapix were normalized using the log-means calculated from the wordlist.

Statistical analysis was carried out in R [19] using the *lmerTest* package [20] using Satterthwaite's approximation to obtain *p* values. Any post-hoc comparisons were conducted using the *emmeans* package [21]. *ggplot2* was used for data visualization [22].

#### 3. RESULTS

# 3.1 Wordlist & Read passage

As displayed in Fig. 1, the majority of vowels in the wordlist were produced similarly by all NK and SK speakers. The only exceptions were for  $/\Lambda$  and  $/e/-/\epsilon/$ . As expected,  $/e/-/\epsilon/$  were fully merged in SK but not NK speakers. LNK speakers had a clear split between  $/e/-/\epsilon/$ , whilst ENK speakers produced /e/ with a lower vowel, intermediate between the NK and SK vowel. SK speakers produced  $/\Lambda/$  as a back, mid-central vowel but LNK speakers produced this as a high back vowel, whilst ENK speakers produced it with a quality intermediate between LNK and SK speakers.

To investigate potential differences in production of  $/\Lambda$ , a linear mixed effects model was built for F1 and F2 separately, with group (SK, ENK, LNK) and phonetic context as fixed factors, and participant as a random factor. For F2, there were no significant effects of group, context or their interaction. Normalized F1 produced by LNK speakers was significantly lower than that produced by ENK speakers (p = .0190), which was in turn significantly lower than F1 for SK speakers (p < .0001). There were also significant interactions between group and

phonetic context. Post-hoc Tukey-adjusted comparisons showed that F1 did not differ by context among ENK or LNK speakers, but was higher in /hVdV(C)/ than in /kVbV(C)/ (p=.0010) and /sVgV(C)/ (p=.0068) for SK speakers.

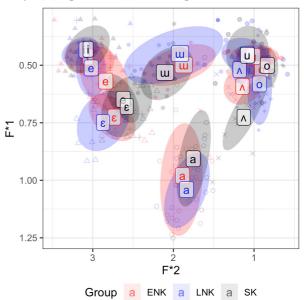
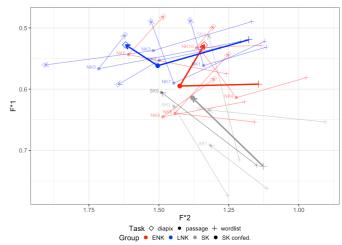


Figure 1: Scatterplot to show vowel production in the wordlist, averaged across 3 vowel contexts and split by accent background: ENK (Early North Korean), LNK (Late North Korean), SK (South Korean).

Fig. 2 shows production of  $/\Lambda$  for all speakers in the wordlist and read passage, and for Diapix (NK speakers only). As expected, there is a clear centring effect from the wordlist to the read passage; in the read passage, all speakers show vowel reduction with  $/\Lambda$  becoming more centralized. However, in the read passage itself, there are few differences between speaker groups. This was confirmed in linear mixed effects models for F1 and F2 separately with group



**Figure 2**: Scatterplot to show average production of /n/ in the wordlist, passage and Diapix by SK and NK speakers, split by accent background: ENK (red), LNK (blue) and SK (grey) speakers, split by group (darker shade) and by individual (lighter shades). The male confederate is SK5.

included as a fixed effect. There were no significant effects for F1 or F2 (p > .05).

# 3.2 Investigating Accommodation: comparison of read speech & Diapix (NK speakers only)

To assess potential phonetic accommodation (i.e., convergence or divergence), we compared production of  $/\Lambda$  in the read passage and Diapix tasks. In this set of models, task, group (ENK, LNK; sum-coded) and their interaction were included as fixed factors and participant as a random factor. For F2, there were no main effects of task or group but there was a significant interaction of group and task (p = .0007). As displayed in Fig. 2, F2 moves in different directions for the two groups: it decreases (i.e., backs) for ENK and increases for LNK (i.e., fronts), with the overall fronting effect for LNK driven by NK2 and NK3. For F1, there was a significant effect of task (p < .0001): F1 in Diapix was lower than that in the passage for all participants. There was no significant main effect of group or interaction between group and task (p > .05).

#### 4. GENERAL DISCUSSION

The current study investigated phonetic accommodation in the New Malden Korean community where North and South Koreans live and work alongside each other. This is very different from the situation in South Korea, where North Koreans struggle to integrate into society and report actively trying to hide their NK identity (e.g., [5, 23]). Of interest was whether, given this very different social environment, North Koreans would continue to use SK-like vowels, particularly when interacting with an SK speaker.

Although not native-like, our results show that some NK speakers do acquire SK-like vowels. In the wordlist, ENKs who had more experience with SK produced /Δ/ with a higher F1 and had a smaller /e/-/ε/ split such that /e/ was intermediate between that of LNK and SK speakers (cf. [24]). LNK speakers, who had less experience with SK, used their native NK vowels (cf. [14, 25]): they produced /Δ/ with a lower F1 and maintained an /e/-/ε/ split typical of NK varieties.

However, regardless of experience, all of our NK speakers diverged from their SK interlocutor in production of  $/\Lambda$  in the Diapix task. This was somewhat surprising. Previous studies have emphasized North Koreans' desire to fit in with their new South Korean community (e.g., [5]) and so, based on this, we had expected that in this task in particular, all our speakers would produce  $/\Lambda$  as a

more central or lower vowel, to better match their SK interlocutor.

Why did these NK speakers diverge? One possibility is that although at least some of the speakers had SK-like variants available in their repertoire (i.e., the ENKs), using these later-learned variants requires a higher degree of cognitive control, and that when attention is diverted (e.g., by a complex task or emotive topic) first-learned variants emerge instead (cf. [26]). Although we cannot rule out a role for cognitive factors, Diapix is a straightforward task and was a format familiar to all participants. There is little time pressure and the pictures are not designed to elicit an emotional response.

Perhaps a more likely explanation is that our speakers diverged as a result of social factors. As previously mentioned, North Korean refugees living in South Korea experience stigmatization as a result of their background and some, like those in our study, emigrate for a better life [10]. New Malden is attractive because of the large Korean community, where North Koreans are an important part of the local workforce. They have created their own community, distinct from that of South Koreans, and characterized by close ties (e.g., [27, 28]) and active participation in the community (cf. [29]). The majority of our participants worked as waitresses and cleaners within South Korean businesses and had formed close relationships with others in the NK community, e.g., through involvement in the North Korean school and workplace. In the interviews, they reported that they no longer felt the need to hide their identity and saw themselves instead as members of a London-based Korean community (cf. [5]). We argue then that these speakers, settled in a new community outside Korea, were able to reclaim and index their NK identity through use of their NK  $/\Lambda$  vowel. It is possible that this effect was magnified because the confederate was known to them. Further, different variants, e.g., the  $\frac{e}{-\epsilon}$  split, may behave differently: NK speakers may develop a hybrid accent in order to signal their new identity as North Koreans in a community where North and South Korea can coexist (cf. [24]). These questions require further analysis and experimentation (i.e., completing Diapix with an unfamiliar interlocutor), both of which we plan to do in the future.

In conclusion, NK speakers who had left North Korea before age 16yrs (i.e., ENKs) had acquired SK-like vowel targets and used these in more formal speech tasks. However, identity rather than experience determined the outcome of phonetic accommodation: in New Malden, where NK speakers are settled, active members of the community, they used their native NK /A/ vowel to reclaim and index their NK identity.

#### 5. REFERENCES

- J.K. 2002. Dynamics of Dialect [1] Chambers, Convergence. J. Sociolinguistics 6(1), 117-130.
- [2] Trudgill, P. 1986. Dialects in Contact. Blackwell: Oxford.
- [3] Foulkes, P. & Docherty, G. 2006. The social life of phonetics and phonology. J of Phonetics 34: 409-438.
- [4] Evans, B.G. & Iverson, P. 2007. Plasticity in vowel perception and production: A study of accent change in young adults. J. Acoust. Soc. Am. 121(6), 3814–3826
- [5] Park, M-Y. 2021 'I don't want to be distinguished by others': language ideologies and identity construction among North Korean refugees in South Korea. Lang. Awareness 31(3), 271-287
- [6] Eychenne, J. & Jang, T-Y. 2005. On the Merger of Korean Mid Front Vowels: Phonetic and Phonological Evidence. J Korean Soc of Sp Sci, 7(2), 119-129.
- [7] Lee, K.-M. & Ramsey, R.S. 2011. A history of the Korean language. Cambridge: Cambridge University
- [8] Kwak, C.-G. 2003. The vowel system of contemporary Korean and direction of change. J. of Korean *Linguistics* 41, 59–91.
- [9] So, S. A. 2021. Hamnam pangŏnŭi moŭm ch'egyewa kŭ pyŏnhwa - hamhŭng chiyŏgŏrŭl chungshimŭro [The Vowel System of the South Hamgyeong dialect and its Change -Focusing on Hamheung subdialect]. Kugŏhak 97, 177-214.
- [10] Lee W. J and Baek. N. S. 2021. Puk'anit'alchumin t'allam shilt'aebunsŏng min taeŭngbangan yŏn'gu [Analysis and countermeasures for North Korean defectors who settled in Korea to leave Korea]. Han'gukkyŏngch'arhak'oebo, 23(3), 49-76.
- [11] Fisher, P. 2015. The Korean Republic of New Malden: How Surrey became home to the 70 year-old conflict. The Independent. https://www.independent.co.uk/news/uk/homenews/the-korean-republic-of-new-malden-how-surreybecame-home-to-the-70-yearold-conflict-10063055.html
- [12] Shin, H. 2018. The territoriality of ethnic enclaves: dynamics of transnational practices and geopolitical relations within and beyond a Korean transnational enclave in New Malden, London. Annals of the American Association of Geographers 108(3), 756-772.
- [13] Baker, R. & Hazan, V. 2011. DiapixUK: task materials for the elicitation of multiple spontaneous speech dialogs. Beh. Res. Methods 43, 761-770.
- [14] Chambers, J.K. 1992. Dialect Acquisition. Language 68(4), 673-705.
- [15] Stamp. R., Schembri, A., Evans, B.G. & Cormier, K. 2016. Regional Sign Language Varieties in Contact: Investigating Patterns of Accommodation. J. of Deaf Studies and Education, 70-82.
- [16] Boersma, P. & Weenink, D. 2021. Praat: Doing phonetics by computer (Version 6.2.14).
- [17] Yoon. T. J & Kang. Y. (2013). The Korean Phonetic Program Suite. https://korean.utsc.utoronto.ca/kpa/

- [18] Nearey, T. 1989. Static, dynamic and relational properties in vowel perception. J. Acoust. Soc. Am. 85(5): 2088-2113.
- [19] R Core Team. 2018. R: A language and environment for statistical computing. R Foundation for Statistical Vienna, Austria. http://www.R-Computing, project.org/.
- [20] Kuznetsova A., Brockhoff, P.B., & Christensen R.H.B. 2017. lmerTest Package: Tests in Linear Mixed Effects Models. J. of Statistical Software 82(13), 1–26.
- [21] Lenth. R., Buerkner, P., Giné-Vázquez, I., Herve, M., Jung, M., Love, J., Miguez, F., Riebl, H. & Singmann, H. (2022). emmeans: Estimated Marginal Means, aka Least-Squares Means. https://github.com/rvlenth/emmeans
- [22] Wickham, H. (2016). ggplot2: Elegant Graphics for Data Analysis. Springer-Verlag New York.
- [23] Kim, H., & Hocking, C. 2018. The stories of North Korean refugees settling in South Korea: Implications for South Korean educators. Multicultural Education Review, 10(3), 203-223.
- [24] Tomé Lourido, G. & Evans, B.G. 2019. The effects of language dominance switch in bilingual: Galician new perception. speakers' speech production and *Bilingualism: Language and Cognition* 22(3), 637-654.
- [25] Tagliamonte, S. & Molfenter, S. 2006. How'd you get that accent? Acquiring a second dialect of the same language. Language in Society 36, 649-675.
- [26] Sharma, D. 2018. Style dominance: Attention, audience, and the 'real me'. Lang. in Soc. 47, 1-31.
- [27] Milroy. L. 1982. Language and group identity. Journal of Multilingual and Multicultural Development 3(3), 207-216,
- [28] Milroy, L., & Milroy, J. 1992. Social Network and Social Class: Toward an Integrated Sociolinguistic Model. Language in Society 21(1), 1–26.
- [29] O'Rourke, B., & Ramallo, F. (2015). Neofalantes as an active minority: Understanding language practices and motivations for change amongst new speakers of Galician. International Journal of the Sociology of Language 231, 147–165.