New Ways of Analyzing Perceptual Dialectology Data with GIS and R: Investigating Factors that Influence Koreans' Perceptions of a Standard Dialect Region

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The present study contributes to the growing body of perceptual dialectology and language attitude research through an analysis of how respondents' perceptions are stratified by factors such as age, sex, education, urbanicity, time lived in a particular place, and geospatial information provided in the survey instrument. It does so using data from a recent perceptual dialectology study in South Korea (Jeon 2012) where, except for Long and Yim (2002), relatively little research of this type has been conducted.

Data for this study were collected using the approaches outlined in Preston (1999, xxxiv) and the primary technique for perceptual dialectology research, the 'draw-a-map' task (cf. Preston 1981, 1989). The data were collected in summer 2012 from 436 respondents, aged 18-82, living in nine South Korean provinces. Respondents were randomly approached and given an outline or province map of Korea, next they were asked to identify places where they thought people sounded different, indicating what they would call that way of talking. Once they completed the draw-a-map task, respondents then answered demographic information questions listed on the reverse side of the map. Following the analytical methods outlined in Evans (2011), Cukor-Avila et al. (2012), and Montgomery and Stoeckle (2013), respondents' comments were coded for semantic categories and perceived dialect regions were identified from an 'all polygons drawn' heat map created using GIS software. Since 'standardness' was identified as a salient feature in identifying dialect regions for Koreans (Long & Yim 2002; Jeon & Cukor-Avila forthcoming), factors that influence Koreans' perception of a standard dialect region were also examined through mixed-effects logistic regression modeling using the statistical program R.

Few perceptual dialectology studies have reported on the interaction between demographic factors and dialect perceptions (notable exceptions are Kuiper 1999 and Demirci and Kleiner 1999), and none to date have done so using GIS and R. Using a GIS is beneficial for this type of multi-layered data analysis because it allows areas identified on respondent maps to be quantitatively aggregated and queried, permitting a detailed analysis of the spatial information captured by the hand-drawn map data (Montgomery & Stoekle 2013). Results from an analysis of the data using GIS and R suggest that the amount of geospatial information provided in the draw-a-map task as well as time lived in Korea play an important role in perceived dialect areas. For instance, respondents who were given outline maps of Korea as well as those who had lived in Korea their whole lives or who had lived there for less than five years were more likely to identify a standard dialect region. These findings suggest not only that there are many different perceptual cues used to make evaluations of a linguistic variety but also that further research concerning the interaction between demographic factors and dialect perceptions is needed. Although there is much left to explore, the present study serves as a step toward understanding what factors influence dialect perceptions through a detailed quantitative and qualitative analyses of perceptions of language variation in South Korea.

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