

## Loanword variation as a result of social influences on loanword adaptation

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This multi-method study intersects the sociolinguistics of loanword variation with the phonetics and phonology of loanword adaptation, testing the hypothesis that loanword variation may stem from social influences on loanword adaptation. Or, framed the other way, that the social factors found to influence loanword variation may also influence initial adaptation. Hall-Lew et al. (2010) found the pronunciation of *Iraq* to differ amongst U.S. politicians, with liberals preferring unnativized [ɑ] and conservatives preferring nativized [æ]. However, I argue that such a pattern may be a result and reflection of this factor's correlation with other social influences more directly related to language contact: attitude toward the language, group, or place of origin (Weinreich 1968, Lev-Ari et al. 2014), ideology regarding language contact (Poplack et al. 1988, Kroskrity 1998, Thomason 2001), and the newly considered factor of a 'global' persona and ideology. I hypothesize that these are better predictors of loanword variation. I also hypothesize that such effects hold at the initial adaptation and dissemination of a loanword. This is tested using a phonetic imitation experiment, motivated by considering loanword adaptation a form of sound imitation that can be influenced even by the replication and mapping of fine-grained phonetic detail (e.g., Kang 2003, Davidson 2007, Peperkamp et al. 2008, Boersma and Hamann 2009, Broselow 2009, cf. Paradis and LaCharité 1997) in tandem with findings that social factors like attitudes can influence such imitation (e.g., Babel 2010, Yu et al. 2013).

Participants (N=30) are exposed to nonce words within short stories, manipulated between [ɛ] and [ə] variants: e.g., [dɛníɹ]~[dəníɹ]. Within, the words are framed as Samoa- or Iran-sourced loans or as unfamiliar English words by manipulating factors like story setting and orthography. Participants then read a sequel out loud, to examine how strongly the exposure form influenced their subsequent pronunciation. The two loan framings allow for the examination of participants' relative attitudes between the two posited places of origin, predicting that if one holds a more negative attitude toward a particular origin, they won't as strongly imitate the exposure form of loans positedly originating from it. The English framing then allows for the comparison of loan vs. non-loan status, to relatively test for the influences of social variables hypothesized to affect loanwords more broadly. Participants then read a randomized word list including potentially variable established loanwords. Follow-up tasks test for the social factors of interest. An Implicit Association Test (Greenwald et al. 1998) between Iran and Samoa measures implicit biases regarding the Middle East and Polynesia. Finally, participants answer an extensive Likert agreement questionnaire, eliciting stances regarding political alignment, the Middle East and Polynesia, language contact ideology, and globalism vs. nationalism using multiple distinct items per factor.

Logistic regression models compare predictors of [ɑ]~[æ] pronunciation of *Iran* and *Iraq* from the word list task. Political leaning is not a strong predictor; rather, explicit (but not implicit) relative attitudes between the Middle East and Polynesia, language contact ideology, and 'global persona' indexation are—all significant in expected directions. This pattern also holds for the variation between nativized and unnativized variants across additional established loans besides just the two Middle East-sourced ones, except (as expected) region-specific attitude is no longer significant. Parallel effects surface in simulated loanword adaptation, examined with Euclidean distance measurements of phonetic imitation between [ɛ] and [ə] categories (see Figure). Individuals more strongly disfavoring the Middle East relative to Polynesia imitate the exposure form of Iran-framed nonce loans less, relative to Samoa-framed ones. Individuals identifying as less 'global' imitate the form of loan-framed nonce words less, relative to unfamiliar English words. These findings demonstrate that factors besides political identity may more strongly and directly predict loanword variation, such that political identity falls out from and reflects factors of political ideology: e.g., source-directed attitudes and globalism. They also demonstrate that loanword variation may result from the same social effects on adaptation.

## References

- Babel, M., 2010. Dialect divergence and convergence in New Zealand English. *Language in Society* 39, 437–456.
- Boersma, P., Hamann, S., 2009. Loanword adaptation as first-language phonological perception. In: Wetzels, L., Calabrese, A. (Eds.), *Studies in Loan Phonology*. Amsterdam: Benjamin, pp. 11–53.
- Broselow, E., 2009. Stress adaptation in loanword phonology: Perception and learnability. In: Boersma, P., Hamann, S. (Eds.), *Phonology in Perception*. Berlin: Mouton de Gruyter, pp. 191–234.
- Davidson, L., 2007. The relationship between the perception of non-native phonotactics and loanword adaptation. *Phonology* 24, 261–286.
- Greenwald et al., 1998. Measuring individual differences in implicit cognition: The implicit association test. *Journal of personality and social psychology* 74, 1464.
- Hall-Lew, L. et al., 2010. Indexing political persuasion: Variation in the Iraq vowels. *American Speech* 85, 91–102.
- Kang, Y., 2003. Perceptual similarity in loanword adaptation: English postvocalic word-final stops in Korean. *Phonology* 20, 219–273.
- Kroskrity, P., 1998. Arizona Tewa Kiva speech as a manifestation of a dominant language ideology. In: Schieffelin, B., Woolard, K., Kroskrity, P. (Eds.), *Language Ideologies*. New York: Oxford University Press, pp. 103–122.
- Lev-Ari, S., Peperkamp, S., 2014. An experimental study of the role of social factors in language change: The case of loanword adaptations. *Laboratory Phonology* 5, 379–401.
- Paradis, C., LaCharité, D., 1997. Preservation and minimality in loanword adaptation. *Journal of linguistics* 33(2), 379–430.
- Peperkamp, S., Vendelin, I., Nakamura, K., 2008. On the perceptual origin of loanword adaptations: Experimental evidence from Japanese. *Phonology* 25(1), 129–164.
- Poplack, S. et al., 1988. The social correlates and linguistic processes of lexical borrowing and assimilation. *Journal of Linguistics* 26, 47–104.
- Thomason, S., 2001. *Language contact*. Edinburgh University Press.
- Weinreich, U., 1968. *Languages in contact: Findings and problems*. The Hague: Mouton.
- Yu, A. et al., 2013. Phonetic imitation from an individual-difference perspective: Subjective attitude, personality and “autistic” traits. *PLoS ONE* 8, e74746.

## Figure

