

## Pivots of the Caribbean: A Vowel Merger in Bequia

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Studies of English vowel systems have shown long and short open *o* to be inherently unstable, with the resolution of this instability serving as a pivot for further shifts in the vowel system – what Labov (2011) calls “a fork in the road”. However, since the principles of vowel mergers and shifts have been proposed on the basis of North American English (Labov 1994; Labov, Ash & Boberg 2006), where ‘normal’ transmission from adults to children (Labov 2007) has predominated, the applicability of these principles to varieties such as English in the Caribbean, where not only transmission but also different degrees of (adult-to-adult) diffusion have operated, is unclear. Unfortunately, the vowel systems of English in the Caribbean have received little attention: most work focuses on a few locales, and often on a single speaker from each locale (e.g. Thomas 2001; Wassink 1999; Wells 1982).

In this paper, we provide an acoustic analysis of the vowel systems in Bequia (St Vincent and the Grenadines), with a more detailed focus on the pivotal low-back vowels. From a corpus of sociolinguistic interviews recorded in 2003-2005 (Meyerhoff & Walker 2013), we selected a subsample of 16 speakers representing four villages with different demographic and ethnic compositions (Hamilton, Mount Pleasant and the Southside villages Paget Farm and La Pompe). Vowels were automatically force-aligned and formant measurements (F1, F2) of stressed vowels were extracted with FAVE (Rosenfelder et al. 2011) and normalized with the modified Watt-Fabrics method in NORM (Thomas & Kendall 2007; Fabrics et al. 2009). Excluding tokens with preceding obstruent-liquid clusters or glides and with following (underlying) /r/ (Baranowski 2013) yielded a dataset of over 70,000 tokens (about 5,000 of which are low-back vowels), which were coded for speaker village and sex, phonological context and vowel class. The contribution of these factors to F1 and F2 was analyzed via mixed-effects linear regression in Rbrul (Johnson 2009), with the individual speaker and lexical item as random effects.

Contrary to findings for grammatical variation in Bequia (Meyerhoff & Walker 2012), vowel systems show a much higher degree of conformity among speakers and villages, with the main source of variation lying in the low-back vowels. In particular, for two villages (Paget Farm and La Pompe) the PALM-LOT-THOUGHT vowels are merged, while in Mount Pleasant LOT-THOUGHT are merged but PALM is distinct, and in Hamilton the three vowels remain distinct. However, unlike what has been found in North American varieties, the LOT-THOUGHT merger does not appear to have caused any shifts in the rest of the vowel system. Although more detailed analysis is obviously required, these results suggest that the principles of vowel mergers and shifts may need to be modified for varieties of English outside of North America.

## REFERENCES

- Baranowski, M. 2013. Sociophonetics. In R. Bayley, R. Cameron & C. Lucas (eds.), *The Oxford Handbook of Sociolinguistics*. Oxford: Oxford University Press, 403-24.
- Fabricius, A., D. Watt, & D.E. Johnson. 2009. A comparison of three speaker-intrinsic vowel formant frequency normalization algorithms for sociophonetics. *Language Variation and Change* 21: 413-35.
- Johnson, D.E. 2009. Getting off the GoldVarb standard: Introducing Rbrul for mixed-effects variable rule analysis. *Language and Linguistics Compass* 3: 359-83.
- Labov, W. 1994. *Principles of Linguistic Change, Volume 1: Internal Factors*. Oxford: Blackwell.
- Labov, W. 2007. Transmission and diffusion. *Language* 83: 344-87.
- Labov, W. 2011. *Principles of Linguistic Change, Volume 3: Cognitive and Cultural Factors*. Oxford and Malden, MA: Wiley Blackwell.
- Labov, W., S. Ash & C. Boberg. 2006. *The Atlas of North American English: Phonetics, Phonology, and Sound Change*. Berlin: Mouton de Gruyter.
- Meyerhoff, M. & J.A. Walker. 2012. Grammatical variation in Bequia (St Vincent and the Grenadines). *Journal of Pidgin and Creole Languages* 27: 209-34.
- Meyerhoff, M. & J.A. Walker. 2013. *Bequia Talk (St Vincent and the Grenadines)*. London: Battlebridge Press.
- Rosenfelder, I., J. Fruehwald, K. Evanini & J. Yuan. 2011. *Forced Alignment and Vowel Extraction (FAVE) Program Suite* (<http://fave.ling.upenn.edu>).
- Thomas, E. 2001. *An Acoustic Analysis of Vowel Variation in New World English*. Publication of the American Dialect Society 85. Durham, NC: Duke University Press.
- Thomas, E. & T. Kendall. 2007. *NORM: The Vowel Normalization and Plotting Suite* (<http://ncslaap.lib.ncsu.edu/tools/norm/>)
- Wassink, A.B. 1999. *A Sociophonetic Analysis of Jamaican Vowels*. Ph.D. Dissertation, University of Michigan.
- Wells, J.C. 1982. *Accents of English*. Cambridge: Cambridge University Press.