6 Diagnosing contact and change: quantification of phonetic and phonological variation in English
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Quantitative methods for the comparison of linguistic varieties make possible the assessment of global similarities between different languages and dialects. This is potentially very useful in analysing the effects of contact, since it allows us to place specific isoglosses within a wider context of shared retentions and innovations, such that their importance for defining relationships between varieties can be objectively determined.

In this paper, we assess the effectiveness of two quantificational methods for diagnosing contact, common origin, and change. The first of these methods measures the similarity of varieties at the phonetic level (see McMahon et al. 2007), and the second quantifies similarities in the lexical distribution of (stressed vowel) phonemes (see Maguire, forthcoming). Comparison of varieties at the phonetic level allows us to assess, in fine detail, the relationships between varieties of English and other Germanic languages. Quantification of similarities in lexical distribution allows us to look beyond phonetic characteristics of varieties to the deeper structural relationships which obtain between them. Analysing the results of these two methods as applied to regional and Standard varieties of English, we examine whether they can be used to address questions such as:

1. What are the dialectal origins of Standard English?
2. How has Standard English impacted on the development of regional varieties?
3. Can these quantifications provide evidence that certain varieties are the result of processes such as language shift and new dialect formation?
4. Can we determine the dialectal origins of colonial varieties (such as Shetlandic, Ulster English and New Zealand English)?
5. How have recent shared innovations in British English (‘dialect levelling’) affected relationships between varieties?

The results of the similarity comparisons, which are visualised cartographically and in network form, suggest that these methods are indeed a useful tool for investigating the effects of contact on the phonetics and phonology of varieties of English.

References