To Germanic and Beyond: phonetic comparison of accents and languages

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In recent work with Warren Maguire and Paul Heggarty, we have been exploring the possibilities for quantitative phonetic comparison of English accents. Currently, the ‘Sound Comparisons’ project (www.soundcomparisons.com) includes over 90 varieties of modern English. In some localities, up to three sub-varieties are also included to illustrate the potential of these techniques of comparison for sociolinguistic research.

I will begin by focusing on these modern English varieties in order to illustrate the calculation of phonetic comparison and the display of results, though I accept that these fall strictly outside the domain of interest for the Germanic Linguistics conference. The corpus for comparison consists of 110 narrowly-transcribed cognate words for each variety, and involves a purpose-built computer program for matching phonetic transcriptions against each other and quantifying their similarity. The results of these comparisons are represented in networks, using the phylogenetic network construction program NeighborNet, which shows connections between varieties regardless of whether these reflect common origin, parallel innovation, or contact. The resulting networks can be analysed further to indicate exactly which phonetic features are primarily responsible for particular groupings of varieties.

In the remainder of the talk, however, I shall turn to more immediate concerns for Germanic linguistics, arguing that phonetic comparison of this kind can be developed in two different and novel directions. First, we shall see that it is possible to extend the method from accents to languages, as I shall show using pilot results from an investigation of 28 (non-English) Germanic languages and varieties. Second, given that there is a continuum between variation and change, I shall present the results of a preliminary investigation of phonetic comparison for a range of historical varieties of English, from Old English to Early Modern English. Finally, because networks become increasingly difficult to read when we introduce larger numbers of varieties, I shall explore multidimensional scaling as one alternative method of comparison which also merits further investigation as we extend these methods to Germanic and beyond.