Vowel perception research has demonstrated that people use both intrinsic (e.g. pitch and formant frequency ratios) and extrinsic (e.g., ranges of vowel formant frequencies in a carrier sentence) acoustic information to adjust their vowel categories for individual talkers. The present investigation examined whether listeners also make use of sociolinguistic factors (e.g. dialect) to accomplish vowel normalisation. The experiments contrasted two varieties of British English: Sheffield English and Standard Southern British English (SSBE). Both exhibit differences in vowel distribution, the most salient being the absence in Sheffield English of the SSBE [ʊ]-[ʌ] contrast (e.g. book, buck), and the use in Sheffield English of the short open vowel [a] in e.g. bath where SSBE uses [a]. To investigate the normalisation of such vowel differences, a method of adjustment task was used. Target vowels were presented in synthesised words embedded in carrier sentences, which were spoken in both dialects. Subjects made goodness judgements and a computer program adjusted the acoustic parameters of the target vowel (F1, F2, F3 and duration) until the best exemplar was reached. Preliminary results suggest that listeners, at least those who are highly familiar with SSBE and Sheffield English, adjust their best exemplar locations of vowels to the dialect of the carrier sentence.