



Stuart-Smith, J., Timmins, C., and Alam, F. (2011) *Hybridity and ethnic accents: A sociophonetic analysis of 'Glaswasian'*. In: Gregersen, F., Parrott, J. and Quist, P. (eds.) *Language Variation - European Perspectives III: Selected papers from the 5th International Conference on Language Variation in Europe (ICLaVE 5)*, Copenhagen, June 2009. Series: *Studies in language variation* (7). John Benjamins Publishing Company, Amsterdam, pp. 43-57. ISBN 9789027234872

<http://eprints.gla.ac.uk/42889/>

Deposited on: 8 October 2012

Hybridity and ethnic accents: a sociophonetic analysis of ‘Glaswasian’

Jane Stuart-Smith, Department of English Language

Claire Timmins, Speech Science Research Centre, Queen Margaret

University Edinburgh

Farhana Alam, University of Glasgow

This paper presents the results of acoustic phonetic analysis of two small-scale studies of a regional ethnic accent, Glasgow Asian. Three accent features indicate patterning according to both ethnicity and local personal identity for these speakers. Fine-grained phonetic analysis of the data, particularly for the realization of /l/, support the extension of Harris’ (2006) notion of ‘Brasian’ to the phonetic level, and so here, to ‘Glaswasian’, an accent which integrates features of Glaswegian and Asian heritage together.

1. Background

Recent research into language variation and change in European urban accents is characterized by an emerging focus on a key factor which relates to linguistic behaviour – ethnicity. New studies of language in urban contexts across Europe are explicitly considering ethnicity alongside identity (e.g. Audrit 2009; Maegaard and Quist 2009). Research in the UK

has also moved in this direction, reflecting, as elsewhere in northern Europe, shifts in demography and linguistic practice. The 2001 Census reported 7.9% of the population of England, Wales and Northern Ireland as belonging to a minority ethnic group, with minority ethnic populations concentrated in conurbations. Informal popular awareness of ethnicity and accent is substantiated in studies of British urban accents (e.g. Khan 2006; Fox 2007); and recent work on London English has identified ethnicity as a potentially important factor in language innovation for mainstream English (e.g. Cheshire et al. in press).

There is also a growing interest in regional ethnic British accents. This has concentrated on the British Asian community, which is the main reported minority ethnic group in the UK, but which is actually made up of a range of different intersecting communities, speaking varieties continuing various Modern Indo-Aryan languages (Punjabi, Urdu, Gujarati, Bengali), originally from the Indian subcontinent (e.g. Ballard 1994). Studies have been carried out in England, in Bradford (Heselwood and McChrystal 2000), Blackburn (Blakeley and Torgersen 2009), Leicester (Rathore 2009) and London (Hirson and Sohail 2007; Sharma and Sankaran 2009). All bar the study of London Gujarati speakers in Wembley by Evans et al (2007), have shown links between accent and ethnicity.

The focus of this paper is a regional ethnic variety of British Asian spoken in Scotland, Glasgow Asian. In Scotland too, the main minority ethnic group is of Asian heritage, which is mainly resident in Scotland's

largest city, Glasgow. In these respects, Scotland's Asian community shows some similarities with that elsewhere in the UK. But there is a demographic difference – in Scotland only 2% of the overall population is reported as belonging to a minority ethnic group, so the Glasgow Asian community is the core of a much smaller minority ethnic group. Within the city, the notion of a Glasgow Asian accent is accepted to the extent it is stereotyped in a local TV comedy, in 'Navid', a Glasgow Asian shopkeeper.

An auditory phonetic analysis of Glasgow Asian identified certain features which varied according to ethnicity and identity, such as the auditory retraction of /t d/ (Lambert et al. 2007). Phonetically such features probably result from interference from the heritage language, still heard in older first generation speakers, and are now being exploited – with different phonetic realizations – by second generation speakers for the purposes of personal identity construction. For example, original Punjabi/Urdu retroflex plosives substituted for Glasgow English denti-alveolar /t d/ are now found in second generation speakers as auditorily retracted, probably articulatorily postalveolar stops (Stuart-Smith 2009; Alam 2009). Sharma and Sankaran (2009) show how a feature like 'retroflexion' can percolate through first and second(?) generation speakers of different ages.

Here we report results from a small-scale study during which we carried out fine-grained acoustic analysis of the same recordings. We used acoustic analysis because this yields objective continuous measures which permit the observation of fine-grained differences in accent which may

relate to ethnicity. We have two main questions: (1) Is ethnicity reflected in acoustic characteristics of accent? (2) How does ethnicity intersect with local personal identity?

2. Methodology

The data for the study are taken from two small complementary datasets: Study One derives from an undergraduate dissertation on the phonetic basis for a ‘Glasgow Asian’ accent (Lambert 2004). Lambert, a monolingual Glaswegian speaker, collected high-quality digital recordings of read speech (wordlist and a reading passage) from 6 Glasgow Asian speakers (5 males and 1 female) and 4 Glasgow non-Asian speakers (2 male and 2 female), with an average age of 24 years. All Glasgow Asian speakers reported themselves as English-dominant Punjabi bilinguals. The study was experimental: speech data were elicited in a controlled manner to test hypotheses relating to speech perception and production. A perceptual study ascertained that listeners could distinguish and correctly identify the Glasgow Asian speakers (who all reported that they spoke with a Glasgow Asian accent).

Study Two draws on an ethnographic study with 18 eighteen year-old, English-dominant Punjabi/Urdu trilingual girls in a Glasgow High School, whose roll has the highest proportion of Asian-heritage pupils in the city.

The digital recordings were collected by Alam, a trilingual English/Punjabi/Urdu-speaking researcher, herself a member of the Glasgow Asian community, for her Masters study of linguistic variation, identity and social practices (Alam 2007). The study used the Communities of Practice (CoP) framework (Eckert 2000). During the ethnography, Alam identified three main CoPs (see Table 1), the Moderns, girls who shared more western social practices, such as dating and talking about boys, the Conservatives, girls whose practices were more conservative, and also visibly so, in the wearing of the headscarf, and the In-betweens, girls whose practices shifted between the two. Within the Conservatives, despite the visible similarities between them, Alam noted two groups, ‘Cultural’ and ‘Religious’: the former saw their religious identity as strongly connected to Pakistani cultural values such as getting married after leaving school, while the latter eschewed such views, maintaining a strong Muslim religious identity with aspirations of going on to further education and work. Given the timescale of the Small Grant which funded the project, a full acoustic analysis of all eighteen speakers was not possible; two girls who were felt to be typical of each CoP in terms of their social practices were selected by Alam (cf Drager 2008; Table 1).

CoP	Social Practices	Speakers
-----	------------------	----------

Moderns	<ul style="list-style-type: none"> • trendy, designer fashionable clothes (often quite revealing) • fashionable short hairstyles (none wear headscarf) • heavy make-up and fashionable jewellery • dating, talking about boys • aspirations for further education and careers 	Huma Zahida
In-Betweens	<ul style="list-style-type: none"> • modest clothing but semi-fashionable • some wear headscarf • wear some make-up, e.g. eyeliner, and pieces of eastern jewellery • some in relationships but generally favour marriage • some aspire to further education 	Nyla Aneela
Conservatives	<ul style="list-style-type: none"> • modest but untrendy clothing, e.g. long baggy tops • most wear headscarf • little or no make-up or jewellery • favour marriage, no relationships 	Saiqa Inaya
Cultural: Religious:	<ul style="list-style-type: none"> • Pakistani values, e.g. marrying young and becoming a housewife • more Islamic values, e.g. such as equality through further education 	

Table 1: Differential social practices of the CoPs observed during an ethnography with 18 girls in a Glasgow High School; named speakers are those analysed in Study Two.

Here we present results for three linguistic features, the vowels of FACE and GOAT, and the consonant /l/ in syllable-initial position. A closer

realization of the vowels and a clearer realization of /l/ are anecdotally thought to be typical of Glasgow Asian. Glaswegian typically shows close monophthongs for the two vowels, and dark /l/ (e.g. Stuart-Smith 1999). Clearer realizations of /l/ could ultimately go back to Punjabi/Urdu /l/ which is typically very clear (e.g. Naseem 2002). The Punjabi vowels /e/ and /o/ show differences of quality and quantity, but are generally realized as close-mid vowels (Bhardwaj 1995).

The acoustic analysis of the data was carried out in Praat. All possible tokens of the two vowels were hand segmented on the waveform and the first three formants were taken at the temporal midpoint. The Hertz measures were normalized using the Bark Difference Metric in NORM. Acoustically /l/ shows a formant structure, often with transitions in and out of adjoining vowels. Darker /l/s usually show a lower second formant frequency, and continuous falling and rising formant transitions; clearer /l/s show higher second formant frequencies, and discontinuity between vowels and the hold phase of the lateral, which may also show weaker acoustic energy (cf Recasens and Espinosa 2005). The acoustic analysis of /l/ was carried out following Carter and Local (2007), which segments lateral and following vowel into four temporal phases: transition into the lateral; the steady phase of the lateral; transition out of the lateral; and vocalic portion. We report second formant values from the steady phase. Statistical analyses were carried out using unpaired t-tests for Study One and ANOVAs for

Study Two. Phonetic context was significant for both vowel and lateral measures but only overall results are presented here.

3. The vowels FACE and GOAT in Glasgow Asian

The vowel results for Study One are illustrated for the male speakers in Figures 1 and 2.

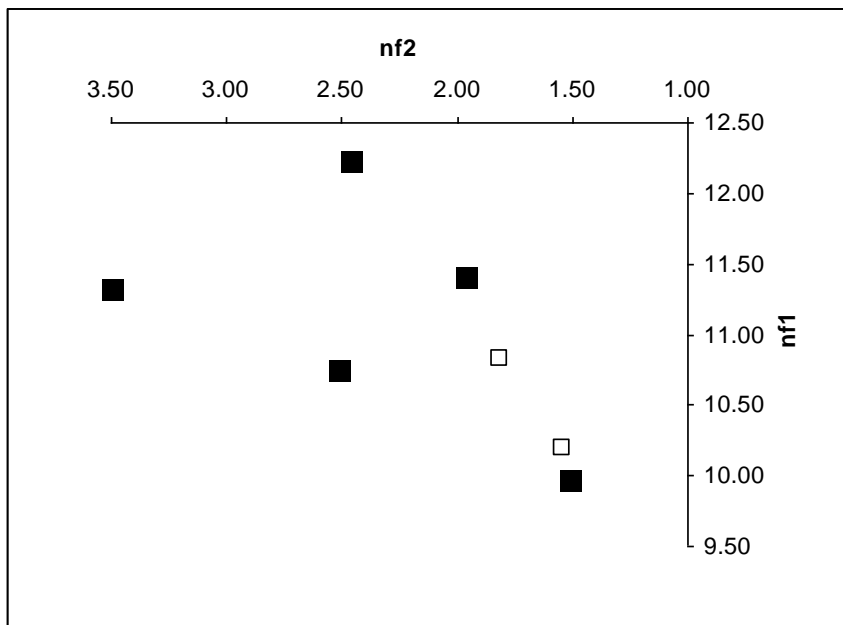


Figure 1. Mean normalized formant values for FACE for Glasgow Asian (■) and Glasgow non-Asian (□) male speakers from Study One (n=80).

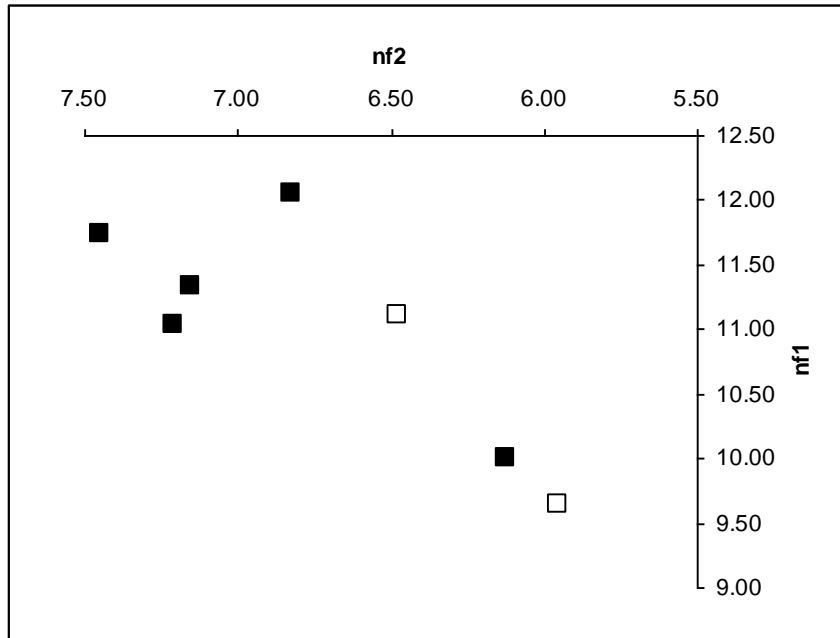


Figure 2. Mean normalized formant values for GOAT for Glasgow Asian (■) and Glasgow non-Asian (□) male speakers from Study One (n=162).

Glasgow Asian speakers have closer and fronter FACE and GOAT vowels, with clearer separation in terms of fronting for GOAT. For both vowels, though, we see that one Glasgow Asian male speaker is separated from the other four, and is located with the Glasgow non-Asian speakers. In both cases this is the same speaker, who also reported having the lowest percentage of Asian friends (50%).

The results for FACE and GOAT from Study Two are shown in Figures 3 and 4.

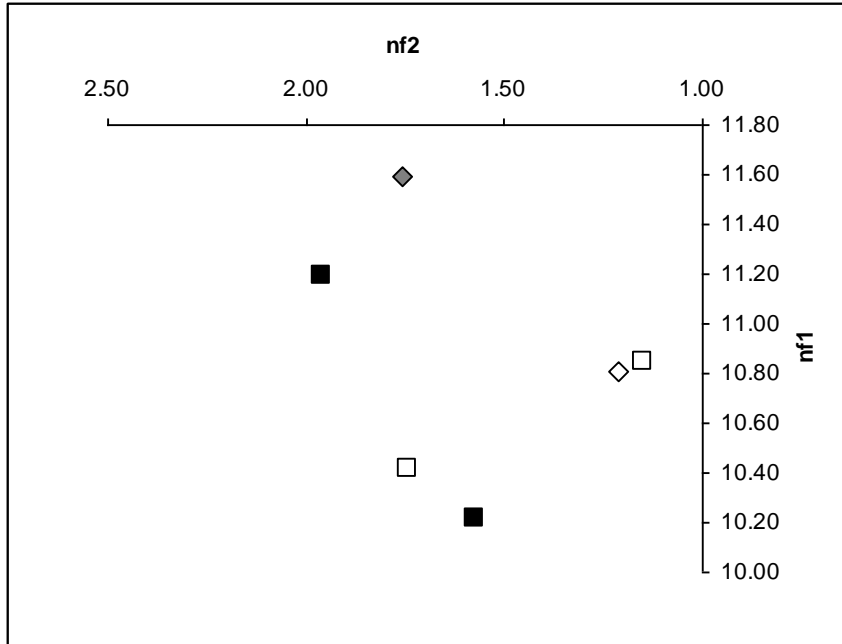


Figure 3. Mean normalized formant values for FACE for Modern (■), Inbetween (□), Conservative Cultural (◇) and Conservative Religious (grey diamond) girls from Study Two (n=424).

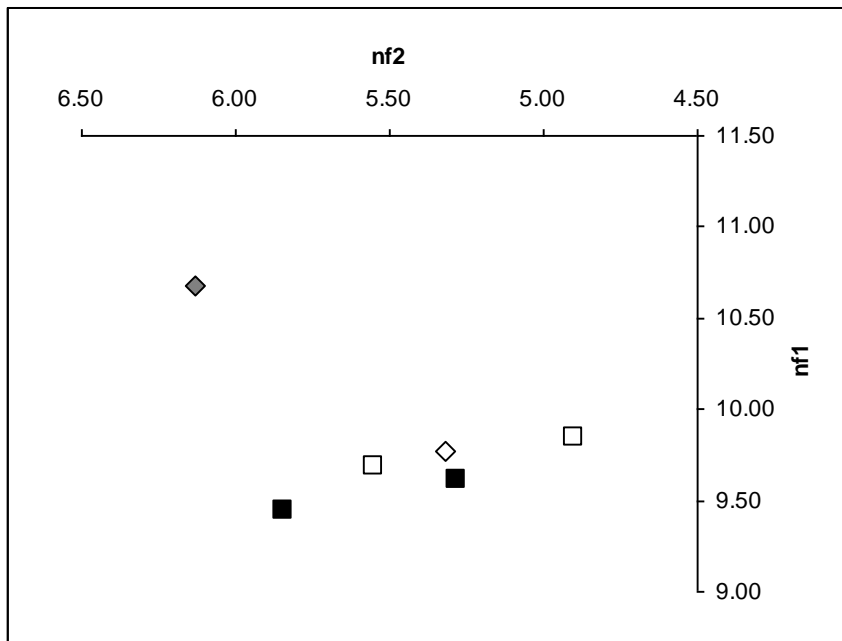


Figure 4. Mean normalized formant values for GOAT for Modern (■), Inbetween (□), Conservative Cultural (◇) and Conservative Religious (grey diamond) girls from Study Two (n=463).

The FACE vowel shows some patterning according to CoP, such that the average for the two Moderns is fronter and that for the two In-betweens is more retracted. But the clearest result is that the Conservative Religious girl is different from the Conservative Cultural girl on both dimensions of frontness and height. Statistically the factor of ‘Speaker’, i.e. each individual girl, showed a better explanation of variance (reflected in the R^2), than the factor of ‘Community of Practice’.

The GOAT vowel, on the other hand, shows clearer separation according to CoP. The Moderns are together both showing slightly lower vowels, and partly overlapping with the two In-between girls who are also together with a slightly higher vowel. The Conservative Cultural girl is only different from the Conservative Religious girl who is fronter and closer than all other girls. For this vowel CoP and Speaker give similarly good explanation of variance, e.g. for normalized F1.

Study One confirms the expectation that FACE and GOAT vary in quality according to ethnicity, with Glasgow Asian speakers showing closer and fronter vowels than Glasgow non-Asian speakers, but there is also variation according to engagement with local minority ethnic networks. Study Two reveals patterning of vowel quality according to the CoPs to which the girls belong. Note that the two Conservative girls are substantially different from each other in a systematic way which relates to their differentiation in social practices shared with other girls observed during the ethnography. In both studies, GOAT shows better separation than FACE; at

present these results are based on small numbers of tokens from a few speakers, but taken together, we tentatively suggest that GOAT may carry more weight in constructing ethnicity and identity for these speakers.

4. Syllable-initial /l/ in Glasgow Asian

The results for the mean second formant values for the steady phase of the lateral from Study One show that Glasgow Asians show a higher F2 than Glasgow non-Asian speakers, suggesting that these speakers have a clearer realization of syllable-initial /l/ (Figure 5).

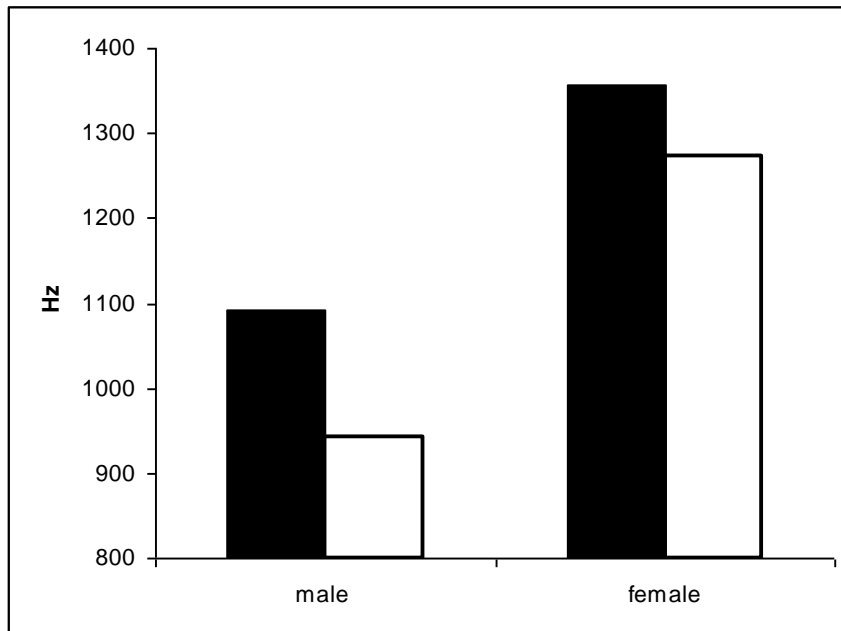


Figure 5. Mean second formant values of syllable-initial /l/ for 6 Glasgow Asian speakers (solid black bars) and 4 Glasgow non-Asian speakers (clear bars) from Study One (n=90).

The average F2 value for the male Glasgow non-Asian speakers is 943Hz, which is very low, and similar to dark or velarized laterals observed in Russian and Portuguese (Recasens and Espinosa 2005). However, note that the mean value of Glasgow Asian F2 is still very low (1092 Hz for male speakers), and is similar to second formant values for dark realizations of /l/ in other accents of English, such as Leeds English (Carter and Local 2007). Glasgow Asian /l/ is then both darker than many varieties of English, e.g. RP, but relatively clearer than local realizations of dark /l/ in Glasgow. Mean F2 does not just pattern with ethnicity, but also with reported engagement with local minority ethnic networks. Figure 6 shows that those speakers with the lower proportion of Asian friends also show lower mean F2 values.

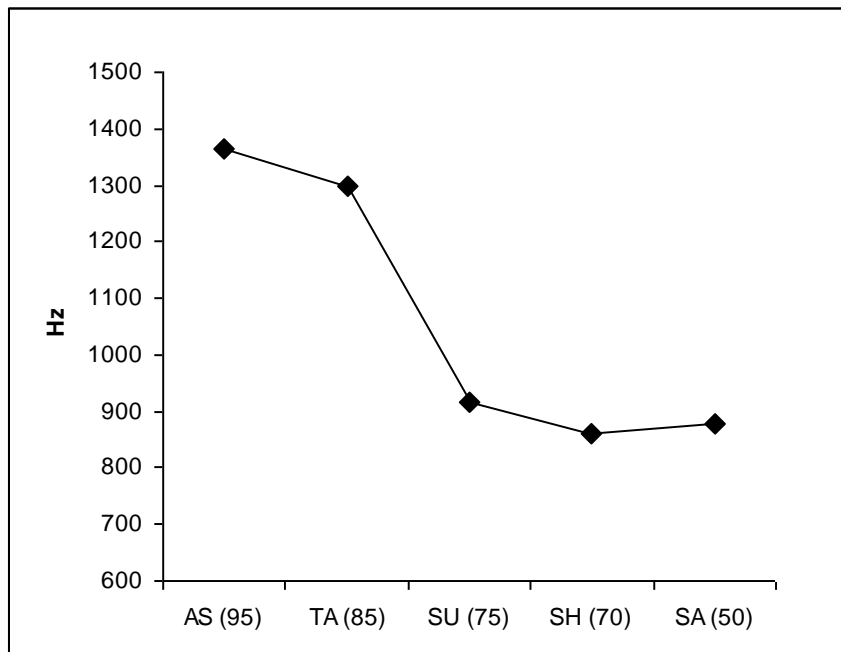


Figure 6. Mean second formant values of syllable-initial /l/ for male Glasgow Asian speakers from Study One; capitals indicate subject code, number in brackets proportion of Asian friends (n=65).

In Study Two, mean F2 varies according to the CoP to which the Glasgow Asian girls belong (Figure 7).

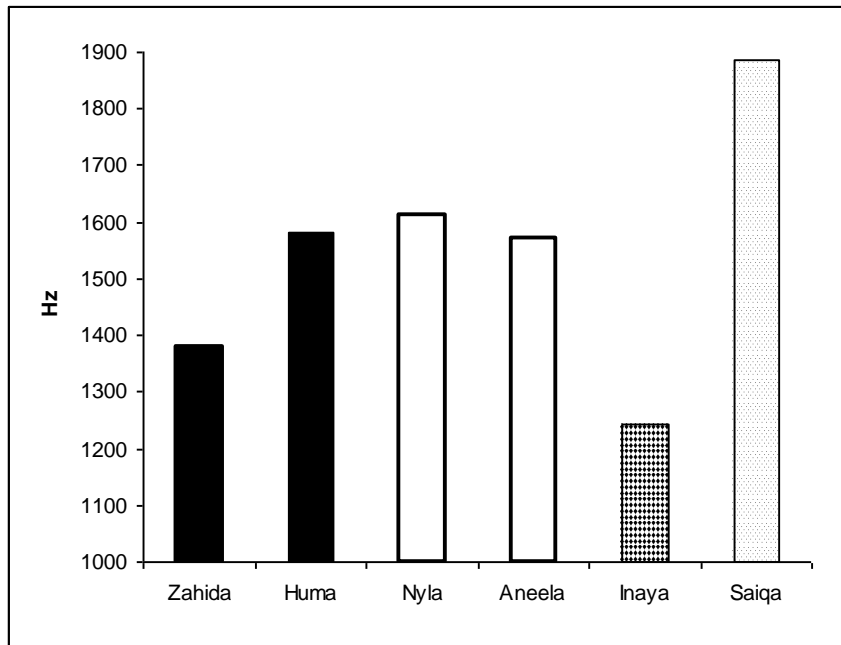


Figure 7: mean second formant values of syllable-initial /l/ for Modern (black), Inbetween (white), Conservative Cultural (dots), and Conservative Religious (diamonds) (n=221).

The In-betweens show similar values which fall between the average for the Moderns and the very high mean for the Conservative Cultural, reflecting a much clearer realization of the /l/. The darkest realization, however, is that of the Conservative Religious girl, whose mean F2 is the lowest of all of the girls, and even the Moderns. Whilst this difference might appear idiosyncratic, two points argue against this. First, she is in her social and

linguistic practices typical of the other Conservative Religious girls from the ethnography. Second, her production of an ultra-dark /l/ aligns entirely with the general affinity of the Conservative Religious girls with the Moderns in their shared aspirations for higher education and a career.

Overall, Glasgow Asian shows acoustic patterns consistent with the assumption of clearer realizations of syllable-initial /l/. We also find that patterning associated with ethnicity always occurs alongside that relating to identity.

5. Discussion

The data presented here suggest that ethnicity is a factor in the realization of all three features, which is in line with previous findings for speakers of Asian heritage languages for consonants (Heselwood and McChrystal 2000) and vowels (Fox 2007; Khan 2006). We also note a potential phonetic similarity in the more peripheral qualities of FACE alongside closer onsets of /eɪ/ in Blackburn Asian speakers (Blakeley and Torgersen 2009). Like Blakeley and Torgersen we wonder about the extent to which factors of dialect contact amongst different regional Asian communities may be leading to similarities across regional Asian accents. Evans et al's (2007) study of London Gujarati is the only comparative sociophonetic study which

does not show differences according to ethnicity in non-Asian and Asian heritage second-generation speakers, which may in part relate to the recent perceptual findings of Torgersen et al (2009) for inner London. However, here ethnicity is not a sole factor, but always intersects with local identity for all features. Thus it does not seem possible to identify ‘ethnic accent features’ as such, since regional ethnic accent features are always an expression of locally-relevant ethnicities *and* identities; see Hirson and Sohail (2007) who also found differences in rhoticity in London Asian speakers in conjunction with reported ethnic identity.

Two other findings emerge. Features vary in the extent to which they pattern with ethnicity and identity. GOAT and syllable-initial /l/ show more differences than FACE. As is often observed for regional and social variation, so some features of ethnicity and identity may carry more symbolic weight than others (e.g. Eckert 2000). We also found evidence for fine-grained acoustic variation patterning closely with engagement with local minority ethnic networks (cf Cheshire et al. in press), and with social practices, ethnicity and identity construction (e.g. Drager 2008).

Finally, we turn to Harris’ (2006) study of language and identity in young British Asians in London for ways of conceptualizing our results. Harris moves away from binary expressions like ‘British Asian’, and drawing on Hall’s (1992) notion of ‘cultures of hybridity’, suggests the emergence of new ethnicities/identities in conjunction with language use: ‘*Brasian* ... suggests a continuous flow of everyday life and cultural

practices in which, at any given moment, both British and particular South Asian derived elements are always co-present': pp. 1-2. Interestingly, from an early stage, and whilst still ignorant of Harris' term, Alam (2007) referred to the linguistic and social practices of her Glasgow Asian girls using the blended term, 'Glaswasian', encoding her informants' pride in being both Glaswegian and also Scottish as opposed to English, whilst at the same time enjoying their Pakistani/Muslim heritage as an intrinsic part of their daily life, shaping their social and ideological practices, albeit to a more polarized degree than is apparent in communities in Southern England.

While Brasian is applied at the level of cultural and social practices, linguistic interaction, and ways of speaking, Harris (2006:5) refers to the 'landscape of sound rather than of vision alone', and later (p.11) makes specific reference to the interweaving of linguistic markers, including at the phonological level, of 'Londonness', with both traditional 'residual linguistic markers in their speech connected with languages like Panjabi, Gujarati and Hindi', and also 'emergent contemporary', relating to contact from local contact with other ethnicities and/or those 'apparently encountered through popular culture'.

The acoustic data for syllable-initial /l/ in Glasgow Asian speakers suggests that such a notion might also extend to the fine phonetic level. Recall that the average F2 values in Glasgow Asian speakers reflect relatively clearer /l/s than those of the Glasgow non-Asian speakers, but at the same time, that they are still darker than for English accents overall. This

suggests an integration of Glaswegian, and Asian-derived, features at the phonetic level. However, this impression is gained more clearly from considering the dynamic patterns for /l/. Consider Figures 8 to 10, of three male speakers from Study One saying *daily*.

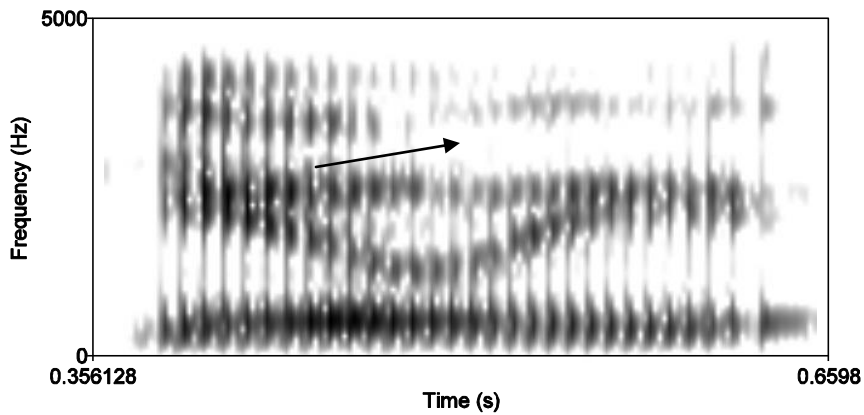


Figure 8. Spectrogram of Glasgow non-Asian male saying *daily*: arrow marks the falling F2 typical of a dark /l/, with only slightly weaker acoustic energy between 1000-2000 Hz during the steady phase.

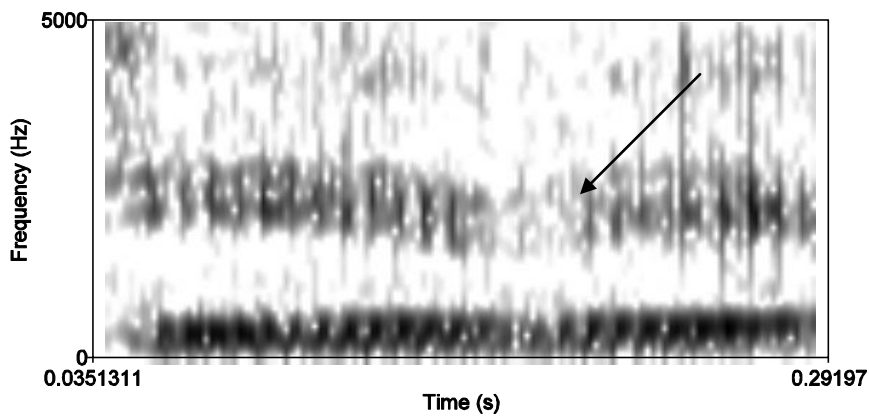


Figure 9: Spectrogram of Glasgow Asian male with the highest proportion of Asian friends saying *daily*: the arrow marks the weakened acoustic energy during the steady phase, which is more typical of a clear /l/.

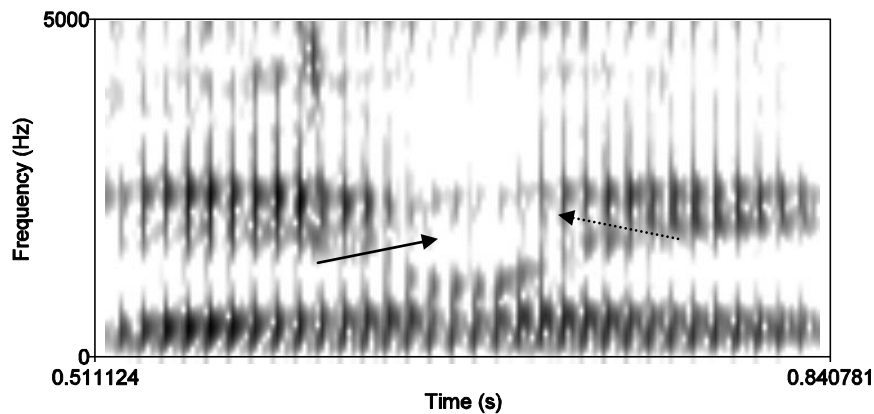


Figure 10. Spectrogram of Glasgow Asian male with the lowest proportion of Asian friends saying *daily*. This speaker shows features typical of Glaswegian dark /l/ (falling F2; solid arrow) but also weaker acoustic energy typical of a clearer /l/ during the steady phase (dotted arrow).

Figure 8, from a Glasgow non-Asian speaker, shows a falling F2 together with only a slight weakening of acoustic energy during the hold phase, all typical of a dark /l/. Figure 9 shows the Glasgow Asian speaker with the highest proportion of Asian friends. His /l/ shows a period of weakened acoustic energy during the steady phase of the lateral, which is more typical of a clear /l/. Figure 10 shows the Glasgow Asian speaker with the lowest proportion of Asian friends. Here we find features typical of dark /l/, so falling F2, and clear /l/, so weakened amplitude during the steady phase, occurring together.

The fine-grained acoustic patterning reveals features that are both ‘Glaswegian’ and ‘Asian’ (ultimately from Punjabi), integrally interwoven; in other words, ‘Glaswasian’ at the fine phonetic level. And indeed, whilst this is apparent in Figure 10, this is also so in Figure 9, since the clearer /l/ still shows lowering of F2, consistent with the steady state measures. Even

clearer realizations are clear only relatively, and with respect to the local continuum of clearness/darkness which operates within Glasgow.

5. Conclusions

This paper considered acoustic data for three features from two small-scale studies. Taken together, we find differences in speech which relate to ethnicity, but also at the same time, to personal local identities. Thus we find preliminary evidence for regional ethnicity and identity amongst Glasgow Asian speakers in terms of accent, but also for the notion of hybridity at the fine phonetic level, so for ‘Glaswasian’, integrating features typical of Glaswegian and Asian-heritage together.

Our work raises questions which are relevant both to the national context, and more generally across Europe. To what extent do realizations of this kind relate to other forms of regional Asian English across the UK?

The Glasgow community is the result of a two-step migration: Asians migrated first to the North of England, and then subsequently further north to Scotland. There is much contact between these communities, and also those in the South of England. There seems to be a clear need for a study which explicitly investigates personal mobilities and ethnicity amongst speakers in UK Asian communities. What is happening to Asian heritage accents in London communities, given the differing suggested implications

of studies like Evans et al (2007) and Torgersen et al (2009) beside Sharma and Sankaran (2009)? And finally, what is the impact of local regional forms of English on the heritage languages themselves, Punjabi, Urdu, Gujarati? Anecdotally speakers of British Asian languages report that in Pakistan and India, speakers of the ‘same’ languages remark on their ‘accents’. We have similar reports in the conversations of our Glaswegian girls. It is high time that there was serious investigation of language variation and change in minority ethnic languages themselves, in Scotland, the UK, and Europe.

References

- Alam, Farhana. 2007. Language and identity in 'Glaswasian' adolescents.
MLitt diss, Glasgow University.
- Alam, Farhana. 2009. Ethnicity, religion, and language in adolescent
Glasgow-Pakistanis. Poster presented at UKLVC7, 1-3 September,
Newcastle.
- Audrit, Stephanie. 2009. Non-standard phonetic variants used as identity
markers by immigrated Moroccan adolescents in Brussels. Paper
presented at ICLaVE5, 25-27 June, Copenhagen.
- Ballard, Roger. 1994. *Desh Pardesh: The South Asian Presence in Britain*.
London: Hurst.
- Bhardwaj, Mangat. 1995. *Colloquial Panjabi*. London: Routledge.
- Blakeley, Laura and Eivind Torgersen. 2009. Language and ethnicity in
Blackburn. Paper presented at UKLVC7, 1-3 September,
Newcastle.
- Carter, Paul and John Local. 2007. "F2 variation in Newcastle and Leeds
English liquid systems". *JIPA* 37.183-99.
- Cheshire, Jenny, Sue Fox, Paul Kerswill and Eivind Torgersen. In press.
"Ethnicity, friendship network and social practices as the motor of
dialect change: linguistic innovation in London". *Sociolinguistica*
22 ed. by Alexandra Lenz and Klaus Mattheier.

- Drager, Katie. 2008. A sociophonetic ethnography of Selwyn Girls' High. PhD diss., Canterbury University, New Zealand.
- Eckert, Penny. 2000. *Linguistic Variation as Social Practice*. Oxford: Blackwell.
- Evans, Bronwen, A. Mistry and C. Moreiras. 2007. "An acoustic study of first- and second-generation Gujerati immigrants in Wembley: Evidence for accent convergence?" *Proceedings ICPHS XVI* ed. by Jurgen Trouvain and William Barry, 1741-4. Saarbrücken.
- Foulkes, Paul and Gerry Docherty. 1999. "Urban voices – overview". *Urban Voices* ed. by Paul Foulkes and Gerry Docherty, 1-24. London: Arnold.
- Fox, Sue. 2007. The Demise of Cockneys? Language change in London's 'Traditional' East End. PhD diss., Essex University.
- Hall, S. 1992. 'The question of cultural identity'. *Modernity and its Futures* ed. by Stuart Hall, David Held, and Tony McGrew, 273-316. Cambridge: Polity Press.
- Harris, Roxy. 2006. *New Ethnicities in Language Use*. London: Palgrave.
- Heselwood, Barry and Louise McChrystal. 2000. "Gender, accent features and voicing". *LWPLP* 8.45-69.
- Hirson, Alan and Nabiah Sohail. 2007. "Variability of rhotics in Punjabi-English bilinguals". *Proceedings ICPHS XVI* ed. by Jurgen Trouvain and William Barry, 1501-4. Saarbrücken.

- Kerswill, Paul, Eivind Torgersen and Sue Fox. 2008 "Reversing "drift": Innovation and diffusion in the London diphthong system". *LVC* 20.451-91.
- Khan, Arfaan. 2006. A sociolinguistic study of Birmingham English: Language variation and change in a multi-ethnic British community. PhD diss., Lancaster University.
- Lambert, Kirsten. 2004. The Asian Glaswegian accent. Undergraduate diss., Glasgow University.
- Lambert, Kirsten, Farhana Alam and Jane Stuart-Smith. 2007. "Investigating British Asian accents: Studies from Glasgow". *Proceedings ICPHS XVI* ed. by Jurgen Trouvain and William Barry, 1509-11. Saarbrücken.
- Maegaard, Marie and Pia Quist. 2009. "Multiethnic linguistic practices – a future standard Copenhagen?" Paper presented at ICLaVE5, 25-27 June, Copenhagen.
- Naseem, T. 2002. "Acoustic analysis of Punjabi Phonemes /ʌ/ and /ɛ/". *CRULP Annual Student Report 2002-3*.
- Rathore, Claudia. 2009. Indian English in Leicester: phonological variation among 'twice migrants' from East Africa. Paper presented at ICLaVE5, 25-27 June, Copenhagen.
- Recasens, Daniel and Aina Espinosa. 2005. "Articulatory, positional and coarticulatory characteristics for clear /l/ and dark /l/: evidence from two Catalan dialects". *JIPA* 35.1-25.

Sharma, Devyani and L. Sankaran. 2009. Retroflexion in first and second generation Punjabi London English'. Paper presented at UKLVC7, 1-3 September, Newcastle.

Stuart-Smith, Jane. 1999. "Glasgow: Accent and voice quality". *Urban Voices* ed. by Paul Foulkes and Gerry Docherty, 201-22. London: Arnold.

Stuart-Smith, Jane. 2009. Investigating ethnic accents: An acoustic phonetic analysis of Glasgow Asian. Final Report to British Academy (SG48480).

Torgersen, Eivind, Paul Kerswill, Sue Fox and Arfaan Khan. 2009. Investigating language and ethnicity in London: Production and perception data. Paper presented at UKLVC7, 1-3 September, Newcastle.