The role of the individual in language variation and change

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1. Introduction
Leeann and Debbie are two thirteen-year-old teenagers from one of Glasgow’s inner city districts. They are being recorded talking to each other in a room in school as part of our sociolinguistic study. They leaf through a magazine and Leeann notices a story about her favourite television programme, *EastEnders*, a soap drama set in the East End of London:

1. Leeann: Oh my God!
2. Debbie: What?
3. Leeann: Mark tries to kill himself!
4. Debbie: What?
5. Leeann: Don’t do it Mark. He’s a bit shy. *inaudible*
6. Debbie: *high voice* Don’t do it Mark! Don’t kill yourself!
7. Leeann: Oh, but Kat’s pregnant, that’s just pure, d’you no’ think he’s nice lookin’?
8. Debbie: Is that who she’s pregnant to?
9. Leeann: No, I, I think it’s Anthony’s.
10. Debbie: I think …
11. Leeann: But d’you no’ think he’s kinda nice lookin’?
12. Debbie: No, I do-
13. Leeann: I d-, I just *inaudible* the way I see him
15. Leeann: Hm, he’s a wee bit annoyin’.

Here Leeann confirms what she has reported in a formal questionnaire, that she is deeply engaged with the characters and plot of this particular TV show. At first glance, this might also appear to be an obvious illustration of a finding which applies to the larger cohort of adolescents to which the two girls belong; that they are leading in the use of innovative phonetic variation within Glaswegian, and that this linguistic behaviour is linked to a range of social factors, including engagement with the TV show that they are discussing. But there is a problem with such an assumption: Leeann’s own linguistic variation for TH-fronting and DH-fronting, two features associated with London and the South East of England, reveals very low usage of [f] and [v] for (θ) and (ð); and in fact every instance of (θ) in this extract (*think* in lines 7, 9, 11) is realized with the local non-standard [h]. So the question arises, how might we account for this apparent anomaly? Should we expect personal engagement with television to be linked to observed instances of linguistic variation in a straightforward way? And, more generally, how does modelling the behaviour of individuals contribute to how we account for linguistic variation and the transmission of language change?

In this chapter, we add another dimension to the discussion of identity and language at the level of the individual by looking at an alternative way of characterising personal responses to participation in language change. We explore the usefulness of a model of individuals’ relative propensity to adopt innovations over time, Rogers’ (2003) ‘adopter categories’, by examining the extent to which it can be applied to two sound
changes in progress in Glaswegian. This model is not new to sociolinguistic theory (cf e.g. Milroy 1987: 202f.); we revisit it here because these changes are linked with media influence, and specific observations are made about how different adopter categories may respond to the media in the diffusion of innovations.

2. Individuals and language variation and change
Individuals are inevitably at the heart of language variation and change, because it is the adjustments in linguistic behaviour of individuals, whether consciously or more usually subconsciously, which constitute variation, and potentially change. It is no surprise, then, to discover modelling of individuals’ social and linguistic traits, albeit from differing perspectives, permeating quantitative sociolinguistic research from the outset, starting with Labov’s (1963) account of sound change in Martha’s Vineyard, where identity with respect to the island emerged as a key factor. And while Labov’s early New York studies are known for concentrating on language variation and social groups, his major work on social factors in language change, reporting the substantial study from Philadelphia, culminates in detailed discussion of the personal histories, characteristics, and revealed identities of identified leaders of linguistic change. He notes in the introduction: ‘[t]o understand the forces operating in linguistic change, we will necessarily be focusing upon a handful of individuals’ (Labov 2001: 33)

The shift from stratification and groups to the abstract social ties that bind individuals together, and how these might relate to language variation (e.g. Milroy 1987), moved the focus of quantitative sociolinguistics closer to individual speakers, both in terms of the use of ethnography to gain access to language data and a deeper understanding of social relationships (see also, Eckert, 2005, on ‘second wave’ research). How social network ties may relate to language change is explored by Milroy and Milroy (1985), and Milroy (1992). More recently, ‘third wave’ sociolinguistic work (Eckert 2005), explicitly brings the individual and identity to the fore, as models of language variation and change intersect with theoretical constructs which allow insight into how individuals negotiate meaning with others through the development of social and linguistic practices, and with these shared and personal sociolinguistic identities (cf Eckert 2000). Stylistic variation in language, particularly seen from the perspective of speaker design/persona construction, has at its core individual speakers exploiting arrays of linguistic variation (see e.g. Eckert and Rickford 2001; Eckert 2005; Coupland 2007); such exploitation may entail shifting in language norms.

No doubt if we are even to approach an understanding of the complex motivations that underpin the linguistic behaviour of any individual speaker as they negotiate their identities, locating themselves ‘in a highly complex multi-dimensional social space’ (Hudson, 1996: 147), we need several, complementary, but probably different, theoretical approaches (see e.g. Cheshire et al in press, who discuss the intersection of multi-ethnic networks, brokering and personality traits in their seven linguistic innovators in London); this chapter considers another possible addition to the theoretical arsenal.

3. The context: language variation and change in Glaswegian
The results discussed belong to a larger study on language variation and change in Glaswegian which in turn contributes to the broader debate concerning the potential
influence of the broadcast media, especially television, on changes to core features of language (cf Stuart-Smith 2006). TH-fronting and DH-fronting, [f] for (θ) as in e.g. think, both, and [v] for (ð) in e.g. brother, smooth, respectively, are classic instances of linguistic innovations which are spreading through UK urban accents from London (e.g. Foulkes and Docherty, 1999). They are prime illustrations of linguistic diffusion through dialect contact if we consider the overall history and pattern of reported instances (Kerswill 2003), but at the same time, the predominance of the innovative variants occurring in the speech of working-class adolescents with less apparent opportunities for mobility (passive or active), suggests that other factors are also involved, such as less overt opportunities for contact between weakly-tied individuals, in conjunction with positive attitudes towards London accents (Trudgill e.g. 1988; Milroy 1987: 203), and/or speculation about orientation towards ’youth norms’ experienced at least in part via exposure to the broadcast media (e.g. Williams and Kerswill 1999).

Neither change is historically expected in Scottish English, where varieties towards the Scots end of the continuum also have local non-standard variants for these phonemes, so [h] for (θ) in a restricted set of lexemes, e.g. think, and [ɾ] for (ð) intervocally, in e.g. bother. However, there are informal reports of [f] since the 1950s, and both variants were reported as sporadic in the early 1980s (Macafee 1983: 34, n.26). An analysis of the two variables in a socially-stratified Glaswegian corpus collected in 1997 revealed a similar distribution to other parts of the UK, showing both changes only apparent in younger working-class speakers, and TH-fronting more established than DH-fronting. In the absence of direct evidence for factors external to Glasgow, we examined the role of the local context, and concluded that local network history and accompanying class-based language ideologies relating to recent changes to the city itself, were important in understanding the exploitation of these resources by these speakers (Stuart-Smith et al 2007).

A subsequent project on Glasgow accent (ESRC R000239757; 2002-5), comprising a research team of sociolinguist/phoneticians, a statistician (Gwilym Pryce) and a media studies expert (Barrie Gunter), enabled us to confirm these patterns as language change, and relate them to a much wider range of social factors, internal and external to the city, including for the first time a systematic consideration of the potential role of the media. We worked with 36 adolescents and 12 adults from the same broadly working-class inner-city area (Maryhill) as in our previous study, recruiting our younger informants from the same secondary school, and a feeder primary, and men and women from local pubs and the same woman’s centre respectively; see Table 1.

In the spring of 2003, and then again in 2004, the same fieldworker collected high quality digital recordings of unobserved conversations from same-sex self-selected pairs, followed by a read wordlist for each speaker. We also collected a substantial amount of additional information (demographic, social, attitudinal, relating to dialect contact, media exposure and engagement) from the adolescents using a structured questionnaire, a one-to-one informal interview, and participant observation over the four month periods of data collection. We used several complementary methods from sociolinguistics and media studies research to investigate the role of the media in these changes, including a language experiment and a large-scale multi-factorial correlational study (Stuart-Smith 2005; Stuart-Smith et al in progress). We analysed
every instance of (θ) and (ð) in the wordlists, and (θ) in the conversations, using narrow auditory phonetic transcription from the recordings after they had been digitized into a PC at 44,100 Hz. (ð) in the conversations was also transcribed, but only six instances of [v] occurred, and so the quantitative results for the variable in that style are not presented here.

The overall results for the main phonetic variants of (θ) and (ð) in the speech of the two groups of working-class adolescents recorded in 1997 and 2003 are given in Table 2. Real time change is apparent in the increase in the use of [f] for (θ) in both speech styles (read speech, \(\chi^2(1, N=733) = 14.05, p = 0.0002\); spontaneous speech, \(\chi^2(2, N=1654) = 24.44, p < 0.000\)). The low number of [v] in 1997 makes statistical analysis across the two samples difficult. Proportionally, the use of [v] for (ð) seems to be similar (or even slightly more in 1997), but the 1997 figures represent only 7 instances out of a potential 46, with six out of eight speakers using [v] for smooth, and only one using it intervocally. In 2003, we gave our informants more opportunities in the wordlist (21 words contained /dh/), and more were taken; 29 out of the 36 children showed [v], with eleven also using it in intervocalic position. In 1997, there were no instances of [v] in the conversations; in the conversations recorded in 2003, [v] was used six times by three speakers, in the only instance of word-final /ð/ (breathe), and in breathing, either, other, neither. We interpret these, and in particular the extension of [v] into intervocalic position even in spontaneous speech, despite the strong presence of local [ɾ], as indicative of DH-fronting as a change in progress in Glaswegian vernacular, but one which is less advanced than TH-fronting.

Our first attempt to account for these patterns was a large-scale regression analysis of [f] and [v] for all speakers together as a group, with respect to the key linguistic factor of position in word, and numerous extra-linguistic factors derived from information gained during the study, capturing: potential for dialect contact within and beyond Glasgow, attitudes to urban accents derived from responses to audio recordings and mental images of those accents, social practices and identity, music, film, video/DVD preferences, engagement with computers and the internet, involvement in sport, and exposure and engagement with television, both generally and with specific programmes; see Stuart-Smith et al in progress. In brief, the correlational study shows robust links with linguistic factors for TH-fronting and DH-fronting, and also with a range of extra-linguistic factors, including strong relationships with variables relating to anti-establishment social practices, contact with relatives in the south of England, and engagement with the TV soap, EastEnders; links with positive attitudes towards the London accent sample are less robust, and only for TH-fronting. A further result is that the final models with the full range of social factors show an explanation of variance which is at least three times better than any single category model alone (e.g. just dialect contact, or attitudes, or social practices and so on).

Interpreting significant correlations for extra-linguistic factors in the model in terms of causality, especially those of theoretical importance, such as social practices or dialect contact, requires also the assumption of an underlying mechanism which allows the translation of the statistical links between linguistic and extra-linguistic variables. For example, consider our regression results for social practices and
identity, where we find that using more [f] is linked with disliking school. Understanding this link as evidence that social practices and identity are related to language variation and change, also means making additional assumptions about how to interpret the link. In this case, we could take the link partly as the product of class-based language ideologies which index [f] as ‘us’ [= local kids], ‘normal’, and [0] as ‘them’ [=school], ‘posh’, as suggested before (Stuart-Smith et al 2007), though other explanations could also be relevant. That we cannot easily supply processes behind the links between linguistic variation and engagement with television, does not in itself negate a causal relationship, but rather makes it more difficult to understand how it might be explained.

However we try to interpret the model, two additional points must be made. The first is that the results of the correlational study represent an appreciation or summary of relationships for all our informants together as a group, in other words that we gain answers to our question as to why the changes might be taking place at the level of the group. The second is that for all linguistic variables, the models require several different kinds of factors together, which suggests that the linguistic performance of particular individuals may relate to one or more factors, or ‘causal pathways’ (see Figure 1). In order to begin to identify which causal pathways might be relevant for specific individuals, and more generally to consider one possible answer to the question of why these changes might be taking place at the level of the individual, we need to look at our informants more closely. We structure our discussion from a particular perspective on individuals’ potential response to innovations drawn from diffusion research.

4. Individuals and the diffusion of innovations
Rogers (2003: 35-7) summarizes the diffusion of innovations as the communication of new ideas/practices/objects over time amongst members of a social system through two kinds of communication channel, interpersonal or mass media. Individuals encountering an innovation are identified as going through a process conceptualized in steps: knowledge, persuasion, decision, implementation and confirmation. The decision step is crucial since at this stage they may adopt or reject the innovation.

Members of a social system can be categorized in terms of their ‘innovativeness’, ‘the degree to which an individual … is relatively earlier in adopting new ideas than other members of a social system’ (p.37). Results of diffusion research has lead to the specification of ‘adopter categories’ based on the S-curve of cumulative adoption of innovations over time (p.272f.); at first few individuals adopt and the number of adoptions rises slowly but then this increases rapidly and with a cumulative effect on the system until around half the individuals in the system have adopted, after which point the rate slows down as the remaining members adopt. The observation that adoptions over time tend to show a bell-shaped distribution which approaches normality justifies an abstract distribution of the innovativeness dimension which is then divided up into five adopter categories as standard deviations from the mean/average time of adoption (see Figure 2). The five adopter categories are (pp. 282-5):

Innovators: ‘venturesome’: the few innovators are daring and risky, they exist at the edge of the local system, and communicate with other innovators across systems.
They are able to cope with high levels of uncertainty about an innovation, especially since some can prove unsuccessful. They ‘[launch] the new idea in the system by importing the innovation from outside of the system’s boundaries’ (p.283).

Early adopters: ‘respect’: early adopters are a small number of respected members of the local social system to whom other, potential adopters, turn for advice and information about new ideas before adopting themselves (many early adopters act as ‘opinion leaders’, those who influence the views of others about innovations; p. 300f.). They ‘put their stamp of approval on a new idea by adopting it’ (p. 283).

Early majority: ‘deliberate’: the early majority are a large adopter category, and are engaged in frequent interaction with their peers in the local system. Their characteristic is one of a longer deliberation before taking up the innovation. Their ‘unique location between the very early and the relatively late to adopt makes them an important link in the diffusion process’ (p.283-4).

Late majority: ‘skeptical’: like the early majority, the late majority constitute a third of the social system; unlike the early majority they wait cautiously until at least half of the overall system has adopted before they venture. ‘The weight of system norms must definitely favor an innovation before the late majority are convinced … most of the uncertainty about a new idea must be removed before the late majority feel that it is safe to adopt’ (p.284).

Laggards: ‘traditional’: in the tail of the adopters are the laggards, who are most local in their outlook, mixing largely with those who also have traditional values, and whose reference point for decisions is past experience. ‘Resistance to innovations on the part of laggards may be entirely rational from the laggards’ viewpoint, as their resources are limited and they must be certain that a new idea will not fail before they can adopt’ (p.284-5).

Diffusion of innovations research has already attracted attention from sociolinguists, notably James and Lesley Milroy, both in their discussion of networks and individuals in the transmission of language change and of the role of the media in language change. Their third main objection to the influence of the broadcast media on language (Milroy and Milroy, 1985a: 30), that speakers are far more likely to be influenced by their everyday personal contacts, is based on Rogers and Shoemaker’s (1971) generalization that interpersonal channels of communication are relatively more important at the persuasion stage, whereas mass media channels are relatively more important at the knowledge stage of the innovation-decision process (now Rogers, 2003: 205). Milroy and Milroy (1985) outlines their theoretical model of social networks and language change; a key aspect of their argument in understanding weak ties as ‘bridges’ across which innovations may pass between close-knit networks draws on understanding the role of ‘innovators’ and ‘adopters’ in the process, though they are concerned about being able to establish this empirically for any sound change. Milroy (1987: 202) again discusses the possible role of ‘innovators’ and ‘early adopters’ in spreading linguistic innovations from the perspective of social network theory, and argues for the relevance of this model for understanding the transmission of linguistic innovations, given that linguistic innovations also tend to show an S-curve distribution over time. Milroy (1992: 183f.) continues this discussion, and offers some useful critique: that the diffusion of
linguistic forms may be more complex than of other innovations; that the schema
relates not to personality types but to relations between groups and individuals (see
Roger’s emphasis on adopter categories as abstract ideal types which relate to other
dimensions such as personality traits; p.282); and that people may be innovative in
certain respects and not in others; see his discussion of the Amish as more or less
conservative with respect to farming innovations, depending on their perceived
compatibility with their existing belief systems.

What makes adopter categorization so interesting for the Glaswegian changes is that
there are observed differences in how communication channels function in the
diffusion process for the different categories. Rogers (2003: 211) expresses this in his
Generalization 5-13: ‘Mass media channels are relatively more important than
interpersonal channels for earlier adopters than for later adopters’, illustrating it with
evidence from a study on the adoption of a pesticide in Iowa. Figure 3 shows that
both channels function at all stages, but that at the knowledge stage all categories bar
laggards use interpersonal channels less and mass media channels more, and then at
the persuasion stage there is a separation between laggards, late majority, and early
majority favouring interpersonal channels, and early adopters and especially
innovators favouring mass media channels.

If we assume that linguistic diffusion operates through similar processes to the
diffusion of other types of innovation, we might expect the media to be involved in
the diffusion of linguistic innovations in general, and that the media are likely to be
more influential for some individuals than others.

These observations lead us to pose three questions for the Glasgow data:

1. How does our sample of informants pattern in terms of adopter category?
2. Does adopter category relate to linguistic change in progress?
3. How does adopter category intersect with the causal pathways arising from the
   regression results, and in particular:
   a. with those relating to communication channel, dialect contact
      (interpersonal) and engagement with specific television programmes
      (mass media)?
   b. with that relating to social identity?

5. Individuals and linguistic diffusion in Glasgow
5.1. Adopter categories in the Glasgow sample
Towards the end of the project, the second author of this paper, who was also the
fieldworker, and who had worked closely with two-thirds of our informants for
around 8 months, and one-third for four months, assigned each informant to an
adopter category. This was done on the basis of: their observed participation in social
relationships with others; their social behaviour towards each other during the course
of the project (i.e. who respected whom, who followed whom); their innovativeness
behaviour with respect to social pursuits and technological innovations; their observed
personality traits. Rogers’ listing of structural, social, and personality traits was used
as a guide. The classification was undertaken separately from any linguistic analysis.

The distribution of our sample in terms of adopter category is shown in Figure 4.
Even in such a small sample, there are some similarities with the expected ‘ideal’
distribution shown in Figure 2. We have more than expected innovators/early adopters/early majority, and less than expected late majority and laggards. This probably reflects our recruitment method which involved the fieldworker giving a class in school and at the end asking for volunteers, who then had to find friends, leading to three pairs for each gender in each age group.

Adopter categories and the basic social relationships of the sample for the three age groups are shown in Figure 5. Our sampling caught some existing networks and fragments of others, and some more peripheral individuals. Innovators are not connected to the main networks, and in three cases chose to talk to laggards. Early adopters are largely members of dense networks.

Adopter categorization and social identification is shown in Table 3. We explored identifying self and identifying others with our informants in the second year of the study. Three social categories were used by the adolescents to talk about each other:

- ‘ned’: for our informants this was a pejorative term, applying to someone who is involved in antisocial, often violent, behaviour, and wearing particular clothing, e.g.

  ‘They wear … like the neds wear the trackies an’ Lacoste stuff an’ aw that.’ Kate (1F6)

  15 out of our 23 informants in year two were labelled by others as ‘ned’ (or ‘tart’), but no one identified themselves as a ‘ned’, preferring ‘normal’, or not giving themselves a label, e.g.

  ‘I’m a wee Glasgow person. I wouldnae say I’m a ned ‘cause I don’t like go oot and start fights an’ aw that.’ Declan (2M3)

  Being a ‘ned’ was also associated with particular speech patterns:

  ‘Then when I talk, my pals go – you pure talk like a wee ned.’
  Catherine (2F1) (who identifies herself as ‘normal’)

  and this was reflected in significant links between being identified as a ‘ned’/’tart’ and TH-fronting in regressions which modelled social practices and identification for this group of speakers.

- ‘geek/wimp’: this was also a negative term sitting at the opposite end of the continuum from ‘ned’, also linked with speech:

  ‘see when you hear them, man, they just talk dead … posh, man.’
  Declan (2M3)

  We shall see that this is also reflected in our sample.

- ‘goth’: this was a separate category for a group who could rival the neds, with whom they fought, and who were associated with particular dress:
‘An’ the Goths wear like rock tops wi’ skeletons on it an’ big baggy troosers an’ aw that … and the purple hair.’ Kate (1F6)

Four of our informants were identified as ‘goths’ by others, but only two self-identified as ‘goths’ (Martin, 1M4 and Rory, 2M1).

There is an alignment of social identification and adopter categories at the edges of the distribution, so that innovators and laggards are ‘goths’ or ‘geek/wimps’ (one ‘geek/wimp’ is a late majority), whilst between them, late and early majority and early adopters are mainly ‘neds’. Whilst we could perhaps understand a laggard being classed as a ‘geek/wimp’, it seems odd that two laggards are classed as ‘goths’ beside the two ‘goth’ innovators. But there is a difference: the innovator ‘goths’ both self-identify themselves as something different (‘goth’ and ‘punk’), while the laggards see themselves as ‘normal’ or don’t identify. Certainly their dress did not mark them as ‘goth’, as both adhered closely to school uniform. It seems likely that they were classed as ‘goths’ partly to mark them as socially peripheral to the main group.

5.2. DH-fronting

We begin by considering the change which is least advanced in Glaswegian: [v] constitutes just under 10% of the overall variation for the wordlists, and only occurs six times in spontaneous speech. Table 4 presents the overall results for the linguistic variables for our informants according to adopter category. There is a striking coincidence of the patterning of degree of [v] usage and adopter category: the laggards show no instances at all; the late majority show more, but do not use more than 14%; the early majority have several speakers with low usage, but peak at 19%; the early adopters show a range, but relatively more use of [v] overall; finally the innovators have both the highest score, and three speakers with low rates. The few instances of [v] in the conversations occur in one member of the early majority, early adopter and innovator categories.

For this change, as for TH-fronting, we cannot work through the results for individual informants in detail; we therefore limit our discussion to specific aspects of interest, first the behaviour of the innovators, second adopter category and social identification, and then the intersection of linguistic usage with adopter category and peer networks in the oldest informants.

The highest user of [v] is also an innovator. Martin (1M4) appears opinionated and confident, someone who shows an active interest in technology, and whose social pursuits, which include skateboarding, have brought him into contact with those outside Glasgow, though only via the internet. He does not report any active mobility beyond a few visits to Edinburgh, and all his family live in Glasgow. Martin is identified as a ‘goth’, but in his conversation with his best friend, Sean (1M5), he describes himself as ‘a punk’, a label not used by any other informants. Martin shows enthusiastic engagement with a number of TV programmes. His favourite is reported to us as Buffy, the Vampire Slayer, and to Sean as The Simpsons, he also likes the local comedy, Chewin’ the fat, and London-based EastEnders and Grange Hill. An indication of his strong engagement with EastEnders emerged during the imitation task. He was shown a photo of a key character (‘Phil Mitchell’) and asked to imitate and discuss his accent: ‘Walford … he’s fae [=from] England …. Walford, or …. is it Walford? Yeah, it’s Walford. Ah’m from Glasgow.’ Martin knows that EastEnders,
or at least this character from this show, is located in England, but the name he gives is the fictional location of the drama. Martin’s high degree of DH-fronting fits with his adopter categorization as an innovator, and as an innovator, his engagement with London-based dramas, in the absence of opportunities for direct dialect contact, seems likely to be one of the causal pathways which accounts for his linguistic behaviour.

Innovators do not always have to innovate; their profile means that they are more marginal and refer less to others in the social system, and this means that their behaviour can be independent – in either direction. The innovator who shows the lowest use of [v], Debbie (2F5), who we saw talking to Leeann in the opening extract, may be such an example. Debbie comes across as an independent girl who does as she pleases. She reports high engagement with London-based programmes, especially liking *EastEnders* and *Only Fools and Horses*; but she is also very engaged with a range of other programmes including *The Simpsons*, and local comedienne, *Karen Dunbar*. Unlike Martin, Debbie has opportunities for dialect contact with those outside of Glasgow, as she has relatives in Bolton and has visited a number of cities including London. As an innovator, Debbie could use both channels, media and interpersonal, in the process of acquiring [v]; she seems to be using neither.

Social identification and adopter category intersect and roughly align with linguistic variation at the periphery: we have seen that the most prolific use of [v] is by Martin (1M4), an innovator, and also a ‘goth’ and the self-identified ‘punk’; at the other end, neither ‘geek/wimp’ uses [v], nor do the two socially-peripheral ‘goths’, they are also laggards and a late majority.

We can explore the extent to which adopter category fits with dialect contact and engagement with television by considering members of the third age group. All but two informants belong to a dense network (see right most cluster in Figure 5). Tommy (3M3) is the early adopter with most [v]; he reports a number of visits to his cousins in Warrington, and his aunt and uncle who have moved to London (‘s awright, you can still underston’ them still’). Dialect contact seems a likely causal pathway for his use of [v], probably in conjunction with engagement with TV given his reported interest in *EastEnders*. Sheena (3F1) is also an early adopter, who talks with her best friend Kirsty (3F6), early majority; both show high use of [v]. Neither girl has many opportunities for contact with those outside Glasgow, but they are both very engaged with London-based dramas (Kirsty more so than Sheena); we could speculate that Sheena’s early adopter status helps her cross the decision threshold to use [v], and that Kirsty’s usage may reflect her reference to Sheena’s behaviour.

But the model predictions do not always work out: Rachel (3F5) is an early adopter, immensely engaged with *EastEnders*, and her father lives in London so she has visited the city many times. Rachel does not use [v] at all. However, if we remain within the model, we could suggest that this innovation may be incompatible with her existing arrays of sociolinguistic variants, their ranges of social symbolic functions, and the ideologies and beliefs underlying them, which we call loosely here her ‘sociolinguistic system’. Rogers (2003: 240f.) emphasizes the importance of compatibility of innovations with existing belief systems for their successful adoption.
5.2. TH-fronting
The fit between adopter category and the distribution of TH-fronting in either speech style is far less good. As well as the change being more advanced, another factor is involved in the diffusion of [f] in Glaswegian. In spontaneous speech, as in the 1997 data, the degree of TH-fronting for most speakers shows an upper limit. This is largely due to the tenacity of the existing local (stigmatized) variant, [h], which occurs in think and thing and related words. In the wordlists, [h] is blocked by several constraints including the influence of standard orthography and the fact that the words are citation forms; TH-fronting is far more frequent (Stuart-Smith and Timmins 2006).

In read speech only an approximate relationship between adopter category and TH-fronting seems to exist, possibly for laggards, early majority, and innovators. In spontaneous speech only the edges of the adopter category distribution seem to fit: the lowest scores for [f] are found in two laggards and a late majority informant, the highest score is found in an innovator. Again at the edges, social categorization fits roughly with adopter category for TH-fronting: the two ‘geek/wimps’ avoid [f] in the wordlists and show only one instance in the conversations, while Martin (1M4) the innovator ‘goth’/’punk’ uses most [f] in the wordlists.

Nevertheless, as for DH-fronting, closer inspection suggests that individuals could be using causal pathways for TH-fronting which may relate to adopter category. Kate (1F6) uses the most [f] in spontaneous speech. Classified as an innovator, confident and knowledgeable, Kate has very few opportunities for dialect contact, but she is a highly engaged viewer of EastEnders and The Bill. Sarah (2F4) is an early adopter with the highest amount of [f] in read speech. She likes London-based programmes a good deal, but it seems likely that dialect contact (and associated positive attitudes towards Southern English accents) are at least as important for her TH-fronting; her father lives with his English girlfriend in the South of England and comes up to Glasgow to visit her: ‘I like the way the English people talk … just the like the ways my dad’s girlfriend talks, and I just sort of listen to her talking’.

We conclude this section by returning to Leeann (2F6) and Debbie (2F5). We have seen that Debbie is an innovator, who avoids [v]; she also shows a very low percent score for [f] her conversation. We have speculated that Debbie’s usage is consistent with her as an innovator, someone who sets her own standards for her own behaviour. Leeann, on the other hand, is a laggard who summarizes herself as: ‘I like to talk nice’. She has few opportunities for dialect contact, but is extremely engaged with London-based dramas, especially EastEnders. Leeann’s reluctance to use [f] and [v] despite her strong engagement may be related to her status as a laggard, both generally and possibly also in response to her interlocutor, Debbie.

5.3. Summary and critique
We may summarize our answers to the questions posed earlier:
1. It is possible to assign members of the Glasgow sample to adopter categories, and the resulting distribution shows some similarities to the ideal distribution
2. There is some evidence that adopter categorization relates to these two sound changes in progress, though the patterning is better for the more recent change (DH-fronting), than the more advanced one (TH-fronting).
3. (a) Adopter category relates to communication channels, and so to causal pathways for dialect contact and engagement with specific television programmes, partly as predicted, though different speakers use different pathways or combinations of pathways. But adopter category and communication channel do not always align with linguistic behaviour.
(b) Adopter category broadly relates to social identity, in terms of the social categories used by our informants, and these align with linguistic variation at the edges of the distribution.

Assuming that our implementation of adopter categorization was appropriate – and it was not always easy to assign informants to categories – it seems that this model does help account for the linguistic behaviour of our sample to a certain extent, and so begins to provide some kind of substance to a possible causal pathway for engagement with TV, as well as for the dialect contact links, as previously assumed.

But there are also limitations to what we did. We only looked at speakers’ behaviour in terms of a static snapshot of their behaviour at a single point in the process, and only at an overall score for a speaker. While we gathered a certain amount of information about our informants, we lacked the kind of in-depth understanding that might be necessary to examine, for example, compatibility of innovations with particular individuals’ sociolinguistic system (see our discussion of Rachel above). Again, we would want the detailed insights from ethnographic research with our informants to gain a better understanding both of the kinds of social categories that were discussed, and how these might relate in a more subtle way to adopter categorization.

The model too has its limitations, some summarized already by Milroy (1992:185). Certainly the diffusion of linguistic innovations is fundamentally different from the diffusion of many innovations in that communication about them is often characteristic of the later stages of a language change, whereas the important role of interpersonal channels at the persuasion stage is often emphasised in terms of potential adopters overtly discussing and evaluating a new idea/object/practice. And Rogers (2003: 107) himself points out a crucial obstacle to diffusion research, the pro-innovation bias, which leads to a tendency ‘to underemphasize the rejection or continuance of innovations’ which continues to be less well understood.

6. Concluding remarks
In this chapter we have taken a particular view towards modelling individuals and language change. The notion of adopter categories from diffusion research seems to present an additional and potentially useful theoretical dimension to help understand how individuals might – or might not – respond to the transmission of linguistic innovations through different kinds of influence, and in conjunction with their perceived social identification. But these insights need to be integrated with results from further work at the level of the individual. An important factor in these two changes is the stylistic differentiation, which indicates that we need to understand better the role of style and stylistic behaviour, within and across our speakers (Stuart-Smith et al in progress, a). This also deserves more attention given the large body of qualitative sociolinguistic research on the appropriation of linguistic material from media resources (e.g. Androutsopoulos 2001).
Finally, returning to our underlying theme, we must accept that individuals will be at the centre of any model which attempts to account for media influence on language, just as they are for language change in general. This is because we must reject any definition of ‘influence’ which equates to a kind of blanket transmission from media source to passive speaker/viewers, long abandoned within media effects research. Rather, it is more helpful to conceptualize media influence in terms of individual speaker/viewers appropriating media material, in other words, each speaker/viewer takes for themself aspects of the media experience whilst engaging with the media, given their own particular experience of the world (Holly et al 2001). Unpacking precisely what linguistic appropriation from the media might entail is not a trivial task. But, whether at the level of processing speech from mediated signals, or in the sociolinguistic alignment of incoming material, or in the locally-embedded exploitation of appropriated innovations at specific stylistic opportunities, understanding individual behaviour will always be important.

Acknowledgements
We are grateful to our informants for taking part on the study, to the Economic and Social Research Council for funding the project, and the Royal Society of Edinburgh for funding further research time at the University of Hannover (courtesy of Jannis Androutsopoulos), and to the audiences at UKLVC6 at Lancaster and NWAV36 at Philadelphia and to our two patient editors, for their constructive feedback on earlier presentations of this material.

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Holly, W., Püschel, U. and Bergmann, J. (eds), (2001), Die sprechende Zuschauer, Wiesbaden: WV
Macafee, C. I. (1983), *Varieties of English around the world: Glasgow*, Amsterdam, Benjamin
Stuart-Smith, J. (2005), Is TV a contributory factor is accent change in adolescents? Final Report on ESRC Grant No. R000239757 (available from Economic and Social Research Council website)
Stuart-Smith, J., Timmins, C., Pryce, G. and Gunter, B. (in progress), ‘Television is a factor in language change: evidence from Glasgow’
Stuart-Smith, J., Timmins, C., Pryce, G. and Gunter, B. (in progress, a), *Mediating the local: Language change and the media*
<table>
<thead>
<tr>
<th>Age Group</th>
<th>Chronological age</th>
<th>Number of informants</th>
<th>Gender</th>
<th>School</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10-11 years</td>
<td>12</td>
<td>6 M 6 F</td>
<td>Primary school</td>
</tr>
<tr>
<td>2</td>
<td>12-13 years</td>
<td>12</td>
<td>6 M 6 F</td>
<td>Secondary school</td>
</tr>
<tr>
<td>3</td>
<td>14-15 years</td>
<td>12</td>
<td>6 M 6 F</td>
<td>Secondary school</td>
</tr>
<tr>
<td>4</td>
<td>40+ years</td>
<td>12</td>
<td>6 M 6 F</td>
<td>Adults from same area</td>
</tr>
</tbody>
</table>

Table 1: Profile of the 48 working-class Glaswegian informants from year one.

<table>
<thead>
<tr>
<th></th>
<th>1997</th>
<th>2003</th>
</tr>
</thead>
<tbody>
<tr>
<td>(θ) wordlists</td>
<td></td>
<td></td>
</tr>
<tr>
<td>[θ]</td>
<td>53.5</td>
<td>46</td>
</tr>
<tr>
<td>[f]</td>
<td>30.2</td>
<td>26</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(θ) conversations</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[θ]</td>
<td>28.3</td>
<td>88</td>
</tr>
<tr>
<td>[h]</td>
<td>43.4</td>
<td>151</td>
</tr>
<tr>
<td>[f]</td>
<td>26.2</td>
<td>102</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>(ð) wordlists</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>[θ]</td>
<td>65.2</td>
<td>30</td>
</tr>
<tr>
<td>[r]</td>
<td>15.2</td>
<td>7</td>
</tr>
<tr>
<td>[v]</td>
<td>15.2</td>
<td>7</td>
</tr>
</tbody>
</table>

Table 2: Main phonetic variants for (θ) and (ð) across all word positions in the read and spontaneous speech of 8 working-class Glaswegian adolescents recorded in 1997 and 36 working-class Glaswegian adolescents recorded in 2003.
<table>
<thead>
<tr>
<th>self identification</th>
<th>identification by others</th>
<th>adopter category</th>
<th>informant code</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>goth</td>
<td>laggards</td>
<td>1F5</td>
</tr>
<tr>
<td>don't know</td>
<td>geek/wimp</td>
<td>laggards</td>
<td>1M5</td>
</tr>
<tr>
<td>normal</td>
<td>goth</td>
<td>laggards</td>
<td>2F6</td>
</tr>
<tr>
<td>-</td>
<td>geek/wimp</td>
<td>late majority</td>
<td>2M7</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>late majority</td>
<td>1F1</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>late majority</td>
<td>2M5</td>
</tr>
<tr>
<td>don't know</td>
<td>ned</td>
<td>late majority</td>
<td>1F3</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>late majority</td>
<td>2M6</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>late majority</td>
<td>1F4</td>
</tr>
<tr>
<td>normal</td>
<td>ned</td>
<td>early majority</td>
<td>2F3</td>
</tr>
<tr>
<td>normal</td>
<td>ned</td>
<td>early majority</td>
<td>1F2</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>early majority</td>
<td>2M3</td>
</tr>
<tr>
<td>don't know</td>
<td>ned</td>
<td>early majority</td>
<td>1M3</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>early majority</td>
<td>2M4</td>
</tr>
<tr>
<td>normal</td>
<td>ned</td>
<td>early majority</td>
<td>2F1</td>
</tr>
<tr>
<td>normal</td>
<td>ned</td>
<td>early majority</td>
<td>2F2</td>
</tr>
<tr>
<td>don't know</td>
<td>ned</td>
<td>early majority</td>
<td>1M2</td>
</tr>
<tr>
<td>-</td>
<td>-</td>
<td>early adopter</td>
<td>1M6</td>
</tr>
<tr>
<td>normal</td>
<td>ned</td>
<td>early adopter</td>
<td>1M1</td>
</tr>
<tr>
<td>-</td>
<td>ned</td>
<td>early adopter</td>
<td>2F4</td>
</tr>
<tr>
<td>[not in year 2]</td>
<td>[not in year 2]</td>
<td>innovators</td>
<td>2F5</td>
</tr>
<tr>
<td>goth</td>
<td>goth</td>
<td>innovators</td>
<td>2M1</td>
</tr>
<tr>
<td>don't know</td>
<td>-</td>
<td>innovators</td>
<td>1F6</td>
</tr>
<tr>
<td>punk/normal</td>
<td>goth</td>
<td>innovators</td>
<td>1M4</td>
</tr>
</tbody>
</table>

Table 3: Adopter categories and social identification – of self and by others – for the 23 informants who continued into year two of the study. - indicates that an informant did not offer a label/grouping for themselves or others.
Table 4: Overall percentages of DH-fronting in wordlists, and TH-fronting in wordlists and conversations, for each speaker, according to adopter category. For each linguistic variable percentage scores within each adopter category are ordered in ascending order. Counts follow each percentage column. * indicates the three speakers show instances of [v] in the conversations; - indicates speakers for whom the overall total was 10 or less, for whom percentages are not given.
Figure 1: Schematic diagram of causal pathways relating social factors to linguistic variation. Bundles of the key theoretical social factors are indicated within the ovals at the bottom of the figure. The shaded oval indicates potential alternative factors not included in the model which may be interposed between language and TV engagement factors. Arrow connectors indicate the presence of a significant correlation within the regression models, and the inference of a causal link. Solid lines indicate factors for which accepted mechanisms/processes exist; the light dashed line connecting attitudinal factors indicates the weaker statistical evidence for a relationship. The dotted/dashed line connecting TV engagement factors indicates the likelihood of a causal relationship whose mechanisms are still far from clear.
Figure 2: Adopter categorization on the basis of innovativeness, Figure 7-3 from Rogers (2003), 281.
Figure 3: Use of interpersonal channels in the diffusion of 2,4-D weed spray in Iowa, according to stages of the innovation-decision process and adopter category; Figure 5-3, Rogers (2003), 212.
Figure 4: Distribution of the Glaswegian informants according to assigned adopter category.
Figure 5: Sociogram of the three age groups of 36 Glasgow adolescent informants shaded according to adopter category: innovator, early adopter, early majority, late majority, laggards. The code for each individual is constructed of a) 1,2,3=age group, b) F/M= female, male, and c) an informant number.

\[\text{Note: All names given to informants are pseudonyms.}\]

\[\text{Note: Another aspect of diffusion theory which we do not discuss here, but which Labov (2001: 356f.) regards as central to the transmission of linguistic variation is 'opinion leadership'; Rogers (2003), chapter 8.}\]