Surviving 'Estuary English': Innovation diffusion, koineisation and local dialect differentiation in the English Fenland.

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INNOVATION DIFFUSION

I explore here the extent to which a number of linguistic innovations, characteristic of the Englishes of the South-East of England, have diffused to a rural area to the north-west of East Anglia, known as the Fens. In doing so, I assess whether diffusion models in the literature to date adequately account for the outcomes of diffusion, as demonstrated in the casual speech of 18 adolescents from three dialectally distinct parts of the Fens. I argue that the diffusion of linguistic innovations is inextricably tied to dialect contact – the meeting of the innovation with the local traditional form – and as such we should conceptualise diffusion not as a simple 'sequence of distributional changes' in the dialectological landscape, but as an outcome of contact-based processes, such as interdialect formation, simplification and reallocation (see Trudgill 1986, Britain 1997a, b, 2001a; Trudgill and Britain forthcoming). I draw extensively on the critique of spatial diffusion models drawn by the human geographer Derek Gregory (1985), and suggest some future directions for research on geolinguistic diffusion. I demonstrate the validity of parts of Gregory's critique through an analysis of eight linguistic variables, one variant of each representing a vigorously spreading innovation from the south-east of England and/or London.

Traditionally, the investigation of the spatial diffusion of linguistic innovations, like those of other cultural forms, has proceeded:

a) on the assumption that the diffusion, in spreading spatially, totally levels away the formerly used traditional dialect variants in its path;

- b) on the assumption that non-adoption of the innovation is a 'passive state where the friction of distance applies a break to innovation' (Gregory 1985: 319);
- c) paying little account neither for the structural *contradictions* or social *constraints* on innovation adoption (Gregory 1985: 323) (for example, gravity models used in the dialectology of diffusion assume everyone who uses the innovation has an equal chance of passing it on and everyone in the geographical path of the innovation has an equal chance of adopting it);
- d) nor for the structural and social *consequences* of the adoption of the innovation;

The models we do have concentrate on how the innovation spatially spreads almost to the exclusion of examining what happens to the innovation en route, or of the social embedding of its promoters and receivers¹, or the structural incongruities of the innovation and the traditional form it is attempting to eradicate. The main models proposed, briefly are:

- 'wave' or 'contagion' diffusion (Trudgill 1986; Bailey, Wikle, Tillery and Sand 1993; Britain 2001a, in press, a), whereby innovations, over time, radiate out from a central focal area, reaching physically nearby locations before those at ever greater distances, somewhat like the ripple effect caused when a pebble is dropped into a puddle. Bailey et al (1993: 379-380), for example, suggest that contagion diffusion is at work in the spread of lax nuclei of /i/ in words such as 'field' across Oklahoma, in the US;
- *'urban hierarchical'* diffusion (Trudgill 1974b, 1983, 1986; Callary 1975; Gerritsen and Jansen 1980; Bailey, Wikle, Tillery and Sand 1993; Hernandez Campoy, 2003, Britain, in press, a) whereby innovations descend down a hierarchy of large city to city to large town, to town, village and country. In Britain (in press, a), for example, I show how the diffusion of l-vocalisation into the East Anglian Fens appears to be reaching small towns before surrounding countryside;
- 'cultural hearth' diffusion (Horvath and Horvath 1997, 2001, 2002) whereby the innovation gains a foothold in both town and country in one particular region before diffusing to other parts of the country; Horvath and Horvath (1997) use the model to show how, again, /l/ vocalization, has taken hold in the area around Adelaide and coastal South Australia, before diffusing further afield in the country, and;
- *'contra-hierarchical'* diffusion (Trudgill 1986; Bailey et al 1993), whereby innovations diffuse *against* the urban hierarchy, arising in rural areas and spreading to urban ones. Trudgill (1986) demonstrates that smoothing processes reducing triphthongs to diphthongs or long vowels –

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¹ The work on social network models by James and Lesley Milroy, however (e.g. J Milroy 1992, L Milroy 1987, J Milroy and L Milroy 1985) provides a promising framework which could be integrated into spatial models of diffusion.

appears to be spreading *southwards* from rural north Norfolk into rural and urban areas of the rest of the county and into neighbouring Suffolk.

I do not wish here in any way to deny the validity of these models – their usefulness in accounting for diffusion has been demonstrated in a number of empirical studies. Aspects of Gregory's critique, however, demand that we ask some further questions about the innovation in these models:

- Is the innovation linguistically identical in its new resting place as it was where it began, with the same social and stylistic status?
- Are the linguistic constraints on the innovation-indicative variability the same?
- Is the traditional form structurally compatible with the change being promoted?
- What are the linguistic consequences of the contest between the innovation and the traditional form? Victory for the innovation? Survival of the traditional form? Or a structural compromise between the two?

I have begun to address the first two questions elsewhere (e.g. Britain 2001a, in press a, in press b). This empirical study of innovation diffusion into the Fens attempts to shed some light on the final two.

"ESTUARY ENGLISH": A SOUTHEASTERN KOINE?

The analysis of linguistic innovations in south-eastern England is particularly relevant in the context of an ongoing debate, both in the media as well as popular and academic linguistics, surrounding the apparent emergence there of a 'new' mixed dialect – so-called 'Estuary English' – which, it is claimed, is increasing in 'popularity' and is diffusing rapidly across the country². The media's enthusiasm for this new dialect has not been matched with hard empirical evidence, however, of its characteristics, its spread nor its social embedding (Altendorf 1999 and Przedlacka 2001 represent some early attempts to find evidence).

The coiner of the term 'Estuary English', David Rosewarne, defined it thus: 'a variety of modified regional speech. It is a mixture of non-regional and local south-eastern English pronunciation and intonation. If one imagines a continuum with RP and London speech at either end, 'Estuary English' speakers are to be found grouped in the middle ground' (Rosewarne 1984: 29). Parsons describes it as 'a modification of several south-east English regional accents in the direction of what is perceived to be the standard, or diluted Cockney spreading outwards from London...it is much more likely that the situation is a dynamic one, with local forms and immigrated forms influencing each other' (Parsons 1998: 60-61). Given these descriptions, we should expect that this south-eastern regiolect should be

² See Britain (in press, b) for evidence that it is not at all new.

spoken by the ever expanding and mobile 'central' classes of society (see L Milroy 1987 and J Milroy and L Milroy 1985 for a discussion of the role of these classes in linguistic change). Its use at the upper end of the social continuum has led to it being labelled the 'new RP' (see for example, Parsons 1998: 64), whilst at the other end its use has been criticised by politicians and journalists as a 'sloppy' rival to London's Cockney (see, for example, Parsons 1998, Przedlacka 2001). There is, of course, variation within this regiolect and, as mentioned earlier, there is little agreement as to what its linguistic characteristics are - some often cited forms, such as glottal stops, are not specific to the variety at all, whilst other candidates, such as [f] and [v] for voiceless and voiced (TH) are often labelled as 'Cockney' and not 'Estuary' even though they too are spreading rapidly across the region and the country. Local varieties, of course, still exist too, partly because the south-eastern regional mix is still focussing, partly because distinct local dialects form part of the mix that has engendered the regiolect in different places - the Essex version of the regiolect is distinct from, say, the Surrey version, since Essex dialects were substantial 'ingredients' in the original mix – and partly because of particular local social and demographic factors - such as variability in wealth distribution, variability in the local densities of ethnic minority groups and so on. Within the core of the south-east, it is probably true that regional dialects are losing their distinctiveness as the dialect mixing becomes ever more intense - thanks to very high levels of social and geographical mobility in the area - and as differences between the counties of the south-east core, among upper working class and especially lower middle class groups, become largely quantitative rather than qualitative. Przedlacka, for example, found that while most of her informants used most of the 'Estuary' features she analysed, they did so in often quite distinct proportions. Both /t/ glottalling and /l/ vocalisation were found in all of the locations she studied, but whilst /l/ vocalisation was almost categorical among her Essex speakers (ibid, 46), levels of glottalisation were, apparently, lower than those used in Buckinghamshire, Kent and Surrey (ibid, 45).

The dialect mixing and koineisation that has been provoked by south-eastern socio-geographical mobility is perhaps best demonstrated empirically by the research on the New Town of Milton Keynes carried out by Paul Kerswill and Ann Williams (e.g. 1999, 2000). The New Town status of the city, with its relatively insignificant pre-urbanisation founder population, its rapid expansion, and the large number of in-migrants – predominantly from other parts of the south-east, obviously makes Milton Keynes a rather extreme example of dialect mixing in the south-east, but nevertheless clearly highlights some of the ongoing dialectological trends in the region as a whole. Kerswill and Williams were able to demonstrate the koine status of Milton Keynes by pointing to a number of examples of dialect levelling, where locally and socially marked forms were dropped in favour of supralocal and less salient variants. Milton Keynes youngsters, for example, rejected both London monophthongal [a:] variants of /ai/ as well as those with non-fully open variants (such as [AI] and [JI]) found in the surrounding rural areas. Similarly they used [b] variants of /A/, as opposed to the more back or raised [A - J] variants of

the rural hinterland or the front [a] of London (see Kerswill and Williams 2000: 86 for further examples). Overall, though the process by which the New Town dialect emerged was more extreme than other places in the south-east, Kerswill and Williams state: 'Whether, in the end, Milton Keynes speech will differ substantially from that of other, well-established towns in the area is in fact doubtful. We have seen the growing similarity between Milton Keynes and Reading, and we have ascribed this to regional dialect levelling' (2000: 111).

But how big is this south-east? How far does this koineised core, with very few distinctive local features but a considerable number of regionally shared ones, spread? In a fascinating discussion of the economic geography of Britain in the 1980s, Allen, Massey and Cochrane (1998) focus on the growth of the 'south-east' as the hub of Margaret Thatcher's neo-liberal project, and, in doing so, contemplate 'when was' and 'what is' the south-east, using a number of measures such as income levels, wage increases, house price inflation, hi-tech employment growth, government public spending increases and so on. They emphasise that the South-East isn't 'out there' waiting to be documented but is created, shaped and reworked by practice, both individual and institutional, within it and that, therefore, the region is both fluid and diverse. Milton Keynes lies firmly within this fuzzy 'south-east' as do Cambridge and Oxford. The Fens, the focus of this study, are well beyond, at the very peripheral outer reaches of this region. This article considers the extent to which the Fens are integrated (or otherwise) linguistically into the south-eastern region (Have local dialect differences mostly been levelled away, for example?), or whether they are simply the recipients of some particularly vigorous innovations being diffused beyond the koine core. As we will see, local socio-demographic factors provide possible channels for both koineisation and diffusion.

THE FENS: LOCATION AND RESEARCH METHODOLOGY

The Fens of Eastern England are located roughly 150km north of London³. Compared with the rest of south-east England, it is a relatively sparsely populated region, many parts of which have a population density less than a fifth of that of England as a whole. Agriculture, food production and food processing form the backbone to the local economy, though the tertiary sector is, like elsewhere in England, becoming an ever more important source of employment. The area has a rather interesting geomorphological history, having, until the mid-16th century, consisted of barely navigable marshland. Dutch engineers drained the Fens from the mid 16th century onwards, and subsequent to this reclamation, migrants from the east (East Anglia, predominantly Norfolk) and the west (Lincolnshire, Huntingdonshire) moved onto the newly drained land to exploit its new-found agricultural potential.

³ Figure 1 shows the location of the Fens in England and the other towns, cities and regions mentioned in this essay. and Figure 2 locates the three Fenland towns and villages surveyed in the empirical investigation that follows.

These migrations from east and west, bringing rather distinct dialects with them, provoked local new dialect formation, as I have documented elsewhere (e.g. Britain 1991, 1997a, 1997b, 2001a, b). The central Fenland dialect today shows many structural characteristics of an interdialect, a structural compromise of dialects from the west and east. Those eastern areas of the Fens that rightly form part of East Anglia, however, still show some similarity with dialects of Norfolk, and those of the Western Fens show affinities with Lincolnshire and Peterborough – the dialect contact provoked by reclamation still left regional variation within the Fens.

This research considers more recent sociolinguistic developments. Despite the drainage, the Fens (particularly the central Fens, focussing on the towns of Wisbech, March and Chatteris) were and to some considerable degree still remain, relatively isolated. The socio-economic developments of the second half of the twentieth century, which had particular momentum in the south-east of England (as Allen et al 1998 discuss), opened the Fenland up to greater influence from outside, and it is the dialectological consequences of this exposure that will be explored here. Certain local demographic factors also intervene which help shape our understanding of the influences on this speech community. Because of the poor quality of housing in many of Britain's urban centres, particularly London, both before and after World War II, successive governments embarked on a number of large-scale programmes of urban redevelopment. As part of this, New Towns (like Milton Keynes discussed earlier) were built - some pretty much from scratch and others, later, representing major expansions of already sizeable towns. These New Towns were supposed to provide complete self-contained new communities for their residents, with carefully integrated industrial, entertainment and infra-structural provision. Peterborough, on the western edge of the Fens witnessed New Town development as part of the later tranche expanding a middle-sized town of the 1960s into a city of over 150,000 people by the end of the century. Although dialectologically Peterborough is of the northern English type (with [a] in the BATH lexical set and [u] in the STRUT set – See Britain 1991, 1997b, 2001b), many of the migrants to Peterborough were from the (dialectological) south-east. It is highly likely that Peterborough is and will continue to act as a significant 'staging post' for the spread of linguistic innovations into the Fens, given its excellent service infrastructure (unrivalled in the north of East Anglia), its relatively young population, and its local reputation as a modern forward-looking and 'connected' city. In the late 1960s and early 1970s this New Town development was supplemented, especially in the south-east, by so-called 'overspill' expansion – like New Towns in that large new residential areas were built for former residents of urban areas, but not as grand in scale or provision. Typical of such developments, the overspill expansion in King's Lynn – on the eastern edge of the Fens – consists of a very large housing estate on the edge of a medium-sized town. In the case of King's Lynn, most of the overspill population were from London and its immediate hinterland. The linguistic consequences of overspill development are, in the same way as New Towns, likely to be that

Figure 1: Location of the Fens, and of other cities, towns and regions mentioned.

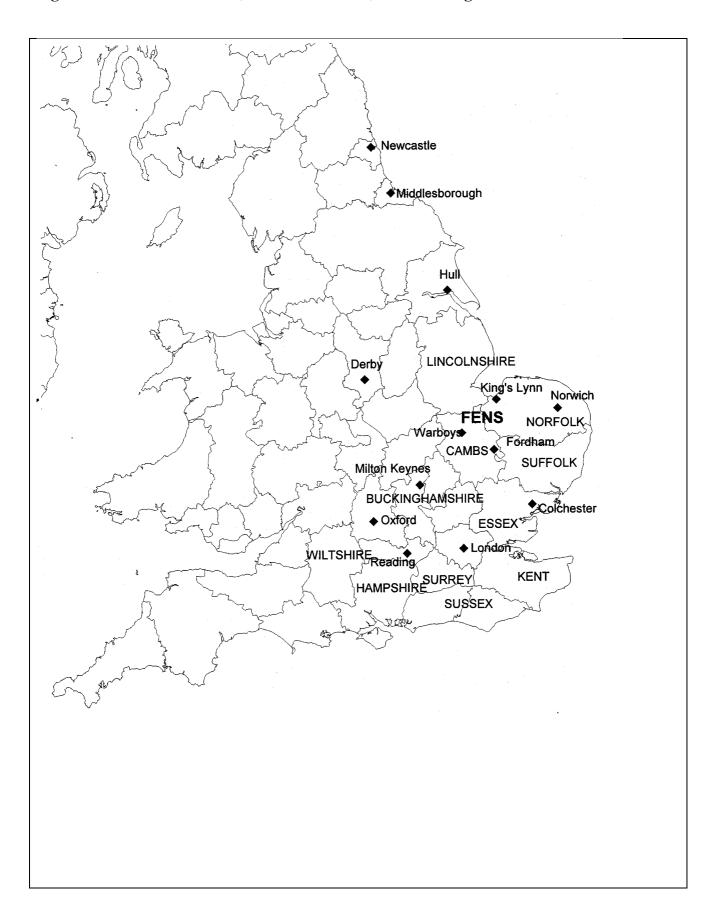
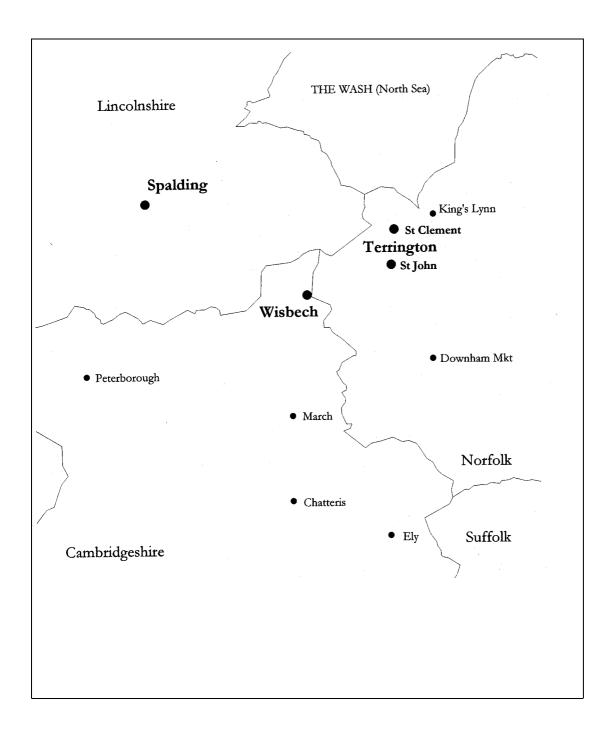


Figure 2: Location of fieldwork sites.



it acts as a conduit for the spread of urban forms into more rural areas. In addition, therefore, to the more general socio-economic changes in the south-east that are pulling the Fens out of their somewhat secluded position, New Town and overspill developments nearby are potentially acting as linguistic catalysts for the propulsion of core linguistic features into the area too.

This research takes a sub-sample of a large corpus of recordings of Fenland English (see Britain 1991) in order to investigate the extent to which the Fens linguistically have been swept up into this south-

eastern koine. I focus here on adolescents, and in order to highlight the regional diversity within Fenland English, I selected three locations – one eastern, one central and one western – to assess the extent to which the adoption of south-eastern features is regionally variable. Recordings for six adolescents, aged 14-17, were analysed in each of the three locations – Spalding in the west, Wisbech in the central Fens, and the Terringtons in the east. Spalding is a small town of roughly 15000 inhabitants in the South Holland district of Lincolnshire. Linguistically, like traditional Peterborough, Spalding is dialectologically northern. Wisbech, nominally 'Capital of the Fens', is a town of 19000 inhabitants whose dialect has been clearly shaped by post-reclamation contact (Britain 1991, 1997a, 1997b). The Terringtons (St Clement and St John) are two sizeable villages between King's Lynn and Wisbech, lying to the east of an isogloss dividing 'linguistic Norfolk' - to the east – from those few villages of Norfolk to the west of the isogloss that share few of the traditional defining characteristics of East Anglian dialects (see Trudgill 2001, Britain 2001a). A minimum of twenty tokens of each variable were analysed for each speaker.

VARIABLES UNDER ANALYSIS

As mentioned above 'Estuary English' is relatively poorly defined. There is disagreement as to which features do and do not form part of the regional koine. I selected the following variables for analysis, either because there is evidence from elsewhere that these features are spreading (e.g. Foulkes and Docherty 1999 for an excellent survey of the state of many urban dialects at the end of the 20th century), or because of a consensus about the role of some of the features in the koine formation. Four consonant variables and five vocalic variables were analysed.

• (TH): The fronting of /θ/ and non-initial /ð/ to [f] and [v] respectively: 'think' [fɪŋk]; father [fɑ:və]: This has received widespread attention, both by journalists and linguists. It appears in many urban centres across Britain (and beyond: Horvath 1985, Campbell and Gordon 1996) (see the papers in Foulkes and Docherty 1999 for a summary, and also J. Milroy 1996 and Llamas 1998). It is sometimes considered as a 'London' and not an 'Estuary' feature though it is difficult to ascertain, in the absence of socio-economically stratified and sociolinguistically sophisticated analyses, how such judgements are made. Trudgill noted just how *rapid* the change to [f] and [v] was in Norwich (Trudgill 1988: 43)). He found that whilst none of his speakers born before 1957 fronted the TH forms, a staggering 70% of his informants born between 1958 and 1973 did so, 29% of the informants consistently. This study coded each token from the 18 adolescents as either [f] or [θ] for voiceless (TH) and as either [v] or [δ] for voiced (TH)

in non-initial position. The vigour of this change in this highly mobile south-east is not altogether surprising, given that it represents both a merger (which has a tendency to expand at the expense of splits (Labov 1994))and the attrition of two rather marked and late-acquired consonants.

- (L): The vocalisation of /l/: 'bottle' [bɒʔx], 'bell' [bɛx], 'belt' [bɛxʔ]: This is, I believe, a relatively unsalient feature, but one which is clearly spreading (see Foulkes and Docherty 1999, once more). Perhaps because of its unsalience, regular comment about it, even in London, did not appear until the beginning of the 20th century (Kjederqvist in 1903 reports vocalisation in Pewsey, Wiltshire). A number of studies have noted its spread in the south-east of England more recently, however (Trudgill 1986; Spero 1996, Kerswill and Williams 1999, Tolfree 1999, Meuter 2002). Trudgill (1999) and Bray (pc) comment that L vocalisation in Norfolk and rural Suffolk has not made the advances that it has in other areas possibly due to the persistence of the use of a clear /l/ in all positions until, in Norfolk at least, well into the 20th century. Tokens were coded as vocalised, or not⁴.
- **(R):** the use of labiodental [v] variants of /r/: 'red' [ved], 'brown' [bvaun]: This is another feature which has recently received widespread coverage in the literature. Foulkes and Docherty (2000) track its origins and spread, and suggest, perhaps somewhat tentatively, that it may have emerged in London through influence from a similar variant used by the 19th century London Jewish community. By the end of the 20th century it was found as far north as Newcastle (ibid.) and Middlesborough (Llamas 1998). Meuter (2002) found labiodental /r/ to be quite common among Colchester primary school children, especially young boys. Kerswill and Williams (1999) report the use of this form in Milton Keynes, Reading and Hull, and Tolfree (1999) notes its appearance in south London. Trudgill (1988:40-41) found that a third of his youngest informants (born 1958-1973) used the labiodental approximant (though we don't know how consistently they did so) and that there were traces of the variant among those born after 1918. Only clearly articulated labiodental variants were coded as [v] other variants were coded as [I].

The five vocalic variables chosen can all be seen as comprising changes typical of what Labov called Patterns 3 and 4 of the Southern Shift (Labov 1994). All, in the south-east of England are assumed⁵ to be undergoing the change according to Neogrammarian regular sound change principles, rather than by lexical diffusion.

⁴ Given the constraints of an auditory analysis on fast and informal spoken data, a finer distinction was not possible. Care was taken to analyse quite conservatively. Only very clearly vocalised tokens were coded as such.

⁵ Given no research which has suggested the contrary...

- (U:): The fronting of /u:/: 'goose' [gy:s]: Relatively little explored in the dialectological literature on the south-east of England, or more generally. Tolfree (1999) reports fronted variants for both working and middle class south London, Kerswill and Williams (1999) report extensive fronting for Milton Keynes and Reading. Trudgill (1999) reports [uu] for Norwich. The classification index for this analysis of the variable was: 1 = [y:], 2 = [u:], 3 = [u:].
- (U): The fronting, unrounding and lowering of /υ/: 'good' [g+d], 'books' [b+ks]. This feature, again, has received very little attention (see comments by Tolfree 1999, Kerswill and Williams 1999). Laver (1995) found the centralised unrounded form to be particularly common among *middle class* girls and lowest amongst working class boys in his survey of schools in Suffolk and Hampshire. Tolfree (1999: 166) notes that unrounded centralised forms are typical of young middle but not working class speakers in south London. She adds that speakers there are very sensitive to the distinction between young and old variants in the area. This salience is not necessarily shared by other parts of the South East however. Unrounded and centralised forms are also found in Milton Keynes and Reading (Kerswill and Williams 1999, 2000). The variable index used here (for tokens of the FOOT variable but not those of the STRUT set which, in Spalding and occasionally Wisbech, are homophonous) was: 1 = [+], 2 = [w] and 3 = [v].
- (OU): The fronting of /Λu/: 'know' [nvɨ], 'show' [ʃvɨ]: This was noted for London in Labov's acoustic analyses of the late 1960s (see Labov 1994 for discussion), and has been reported frequently since both in the capital and beyond across the South-East (Tolfree 1999 reports [v], for example). Kerswill and Williams (1999) show high levels of fronting in both Milton Keynes and Reading. Traditionally in East Anglia, however, the /Λu/ diphthong is split, with words originating from Middle English ou (such as 'rows', 'thrown', 'mown') being realised as [vu] but those from ME o: (e.g. 'rose', 'throne', 'moan') still retaining an [vu] pronunciation (see Trudgill 1974a, 1999). The area of East Anglia which retains this split is shrinking, however (Trudgill 1986). A multivariant index is required here to represent all the possible variants of this very diffuse variable: 1 = [vu vi], 2 = [vu vi], 3 = [vu vi], 4 = [vu], 5 = [vu], 6 = [vu], 7 = [vu] and 8 = [vu].
- (A): The fronting of /A/: 'cup' [kep]. It is well reported (Wells 1982, Hughes and Trudgill 1979, Tolfree 1999) that in the Englishes of London and parts of the rest of the South-East, the STRUT vowel is typically fronted to at least [v] if not [a] or [a]. Trudgill noted (1986: 50-51) that these fronted forms were diffusing into East Anglia, but that the Fenland (1986: 52)

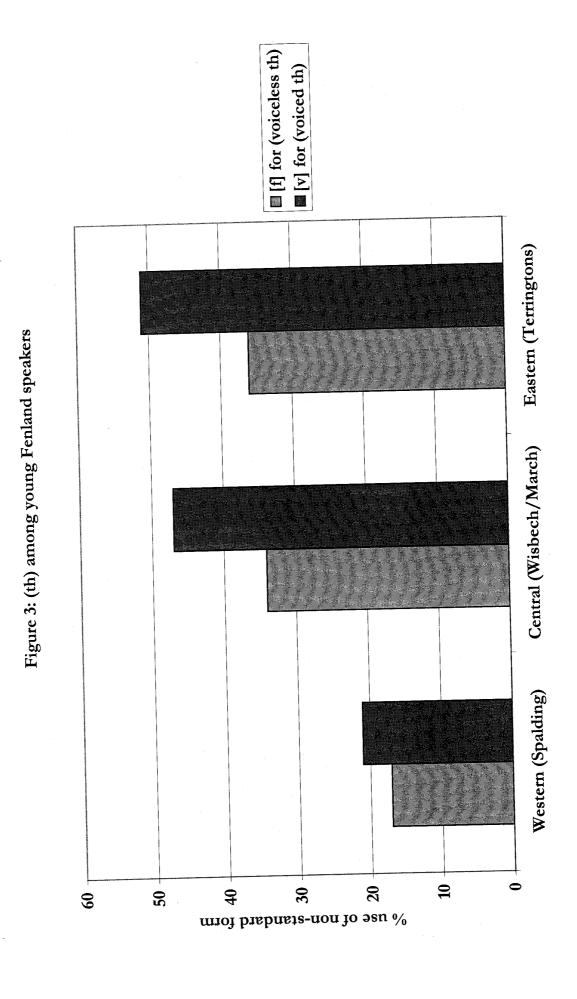
retained back and non-fully open variants. Tokens were coded as follows: 1 = [v], 2 = [v], 3 = [v], 4 = [A], 5 = [A], 6 = [B], 7 = [A]

• (AI): The backing and monophthongisation of /ai/: 'price' [piais - pia:s]. This backing is noted for London by Wells (1982) and Tolfree (1999). Kerswill and Williams (1999) report similar forms in both Reading and Milton Keynes. Traditionally, East Anglia has retained a more central onset to this diphthong. Trudgill (1999) suggests a typical [vi] pronunciation for Norwich but comments that the [ai] realisation is increasingly common among younger speakers in the city. In the more rural areas, [Ai] is frequently found. A Labovian index score was devised as follows: 5 = [ui], 4 = [vi], 3 = [ai], 2 = [Ai], 1 = [ai], 0 = [a: - p:].

RESULTS:

(TH)

The results of the analysis of voiceless and voiced (TH) are presented in Figure 3. Two points stand out from these data. Firstly, the Western, Lincolnshire side of the Fens has levels of TH-fronting roughly half those of the rest of the Fens. Secondly, fronting of voiced TH is higher than that of voiceless TH, and the difference between voiced and voiceless is more marked the higher the overall levels of fronting. This voiced > voiceless pattern was also found for Milton Keynes and Hull by Williams and Kerswill (1999: 160), as well as for Reading for all but one social group in their survey. Llamas also found a similar hierarchy for the males in her Middlesborough survey (Llamas 1998: 106). Her female speakers did not follow this constraint ranking, but used such low levels of TH fronting anyway that comparisons are pointless. Clearly, TH fronting has affected adolescent speech in the Fens. It is barely present at all in the speech of older speakers in my sample. It is noteworthy, however, that the levels of this fronting are relatively modest, given findings elsewhere. Although comparisons are difficult given the analysis methods used, it appears that the adolescents in Trudgill's survey of 1988 (born 1958 to 1973) mentioned above, have higher levels of fronting than the Fenland adolescents (born 1972-1975). Furthermore, Llamas' young male informants, living several hundred kilometres further north, show levels of TH fronting (voiceless: 38%, voiced 54%) higher than those of the most prolific fronters in the Fens (voiceless: 36%, voiced 51%). This suggests that the rural Fenland has been a somewhat late acquirer of this very vigorous change.



(L)

The results of the analysis of /l/ vocalisation are presented in Figure 4. The pattern is the reverse of the one we saw above for TH fronting. L vocalisation is most advanced in Spalding in the Western Fens, around 12% higher than in the central area and over 26% greater than in the eastern Fens. There is, I suggest, a good reason for this pattern. As mentioned above, /l/ vocalisation does not seem to have penetrated so deeply into parts of East Anglia to the east of the Fens (Trudgill 1999, Bray pc). This is due to the fact that these parts of East Anglia retained clear /l/ in all phonological environments (no clear-dark /1/ distinction, therefore, which appears to be a prerequisite for vocalisation – see Johnson and Britain 2002) until well into the 20th century. Very old speakers in rural eastern Norfolk still retain clear /l/ pronunciations of, for example, 'bell' [bel], and 'kill' [k1l]. Most younger speakers in Norfolk do have a clear/dark /l/ distinction today, however. The eastern side of the Fens (including the Terrington villages analysed here) sit, within Norfolk, in the socio-economic functional zone of the town of King's Lynn (Britain 2001), and hence in linguistic East Anglia proper (Trudgill 2001). The consequences of the very late development of a clear/dark /l/ split in Norfolk seem to be resistance to vocalisation. Older speakers in my eastern Fens sample vocalise very rarely (11% of all tokens) in comparison with speakers of the same age in the rest of the Fens (28%), and this 'lag' appears to have persisted diachronically to the present adolescent generation.

(R)

My analysis of labiodental /r/ in the Fens produced the results displayed in Figure 5. As for TH fronting, the east (48%) and central Fens (53%) exhibit far higher levels of /r/ labiodentalisation than the west (23%). Once more these levels are relatively low in comparison with other studies of locations further from London than the Fens. Llamas (1998: 107), for example, found Middlesborough males using labiodentals well over 50% of the time. Foulkes and Docherty's (2000: 44) analysis of labiodentalisation in Derby showed that over 60% of tokens used by working class speakers were labiodental variants. Again, it appears that the Fens are somewhat lagging behind *urban* centres in the acquisition of this innovation, suggesting an urban hierarchical diffusion type.

(U:)

The results of the analysis of the GOOSE long vowel are presented in Figure 6 below. The results show that /u:/ fronting is well underway for all three groups of adolescents in the Fens. Over two thirds of the tokens for the central Fens and over three-quarters for eastern and western Fenland adolescents are fronter than [#:].

Eastern (Terringtons) Central (Wisbech/March) Western (Spalding) % vocalised (l)

Figure 4: L-Vocalisation among young Fenlanders

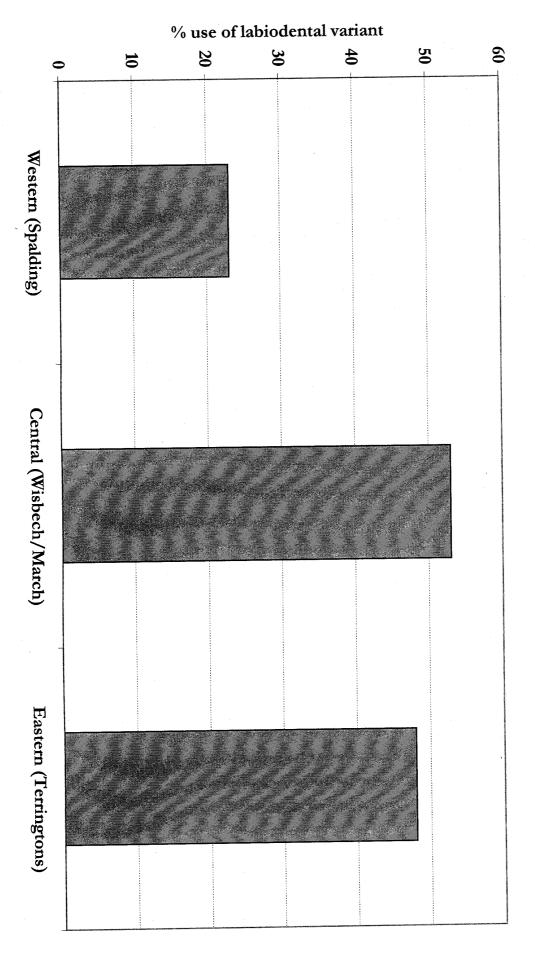


Figure 5: Labiodental (r) among young Fenlanders

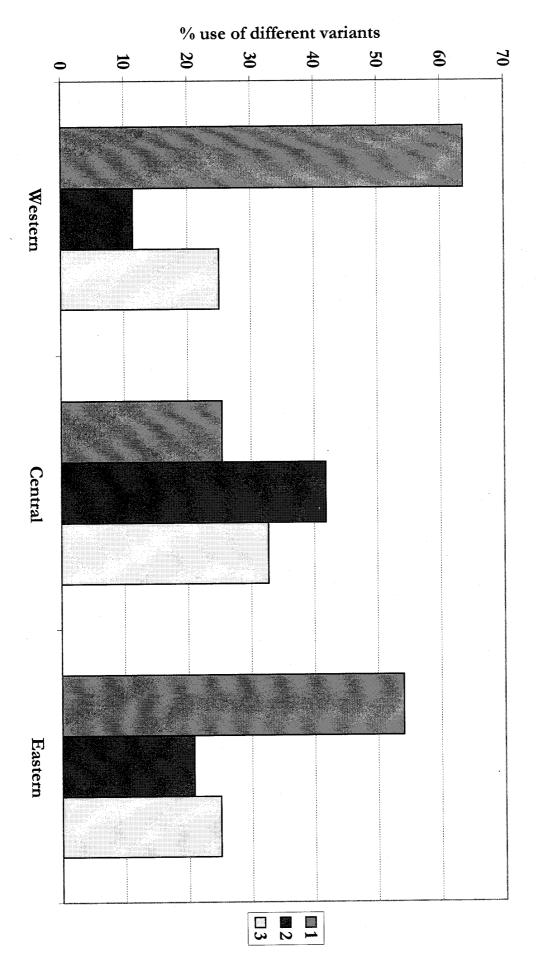


Figure 6: (u:) among young Fenlanders

(U)

The analysis of the adolescent data for the FOOT variable is presented below in Figure 7. Fronting/unrounding is most pronounced in the east of the Fens and least so in the west. Only 25% of the tokens used by Spalding adolescents were fronter than [u] or unrounded. In the east only 15% were not. The failure of the Spalding adolescents of the western Fens to participate as wholeheartedly in this change may well be due to the fact that they have yet to develop (in the vast majority of cases) a FOOT – STRUT split. If the change were to affect the whole unsplit lexical set, it would lead to tokens such as [bl+d] for 'blood'. In my investigations of the STRUT lexical set across the whole of the Fens (Britain 1991, 2001b), I found no tokens at all with such variants. This, in itself, is, in fact, quite remarkable, suggesting that the Spalding adolescents are able to apply an innovation to a lexical split that has yet to fully phonologically realise itself. Further east, where a clear(er) /u/ - /n/ split exists, there has been

(OU)

greater progress in the fronting and unrounding.

The results of the analysis of (OU) are rather complex, and are hence divided into two graphs, one for the western and central Fenland speakers and one for the eastern adolescents from Terrington. This is because the latter have largely preserved the historical MOAN-MOWN distinction, and the fronting of (OU) has variably affected the two lexical sets. Figures 8a and 8b show the findings of the analysis.

A comparison of the two graphs shows some important contrasts. The central Fens have higher levels of fronting overall, with two thirds of the tokens being [vu] or fronter. This figure drops to less than 30% for the western Fenland adolescents. Note also that both locations have a few tokens of [vu] – all of these tokens are of the word 'go' or its compounds which occasionally retain the traditional East Anglian pronunciation. Figure 8b shows that fronting is further advanced in the MOWN than the MOAN lexical sets in the east, though there are a few tokens of fronted variants even in this latter class. Clearly, however, the dominant variants of MOAN are those with back and mid or mid-close onsets, [vu] and [vu], showing a clear preservation of the distinction among these youngsters although the predominant use of the [vu] variant is an indication of ongoing and gradual lowering of the onset. How long this distinction will survive is a mystery, but it may be aided by the progress of the MOWN set to the front of vowel space.

(Λ)

The analysis of the Fenland adolescents from Spalding, Wisbech and the Terringtons shows no evidence whatsoever of any fronting of $/\Lambda$. Spalding youngsters retain Northern [u] or slightly lowered

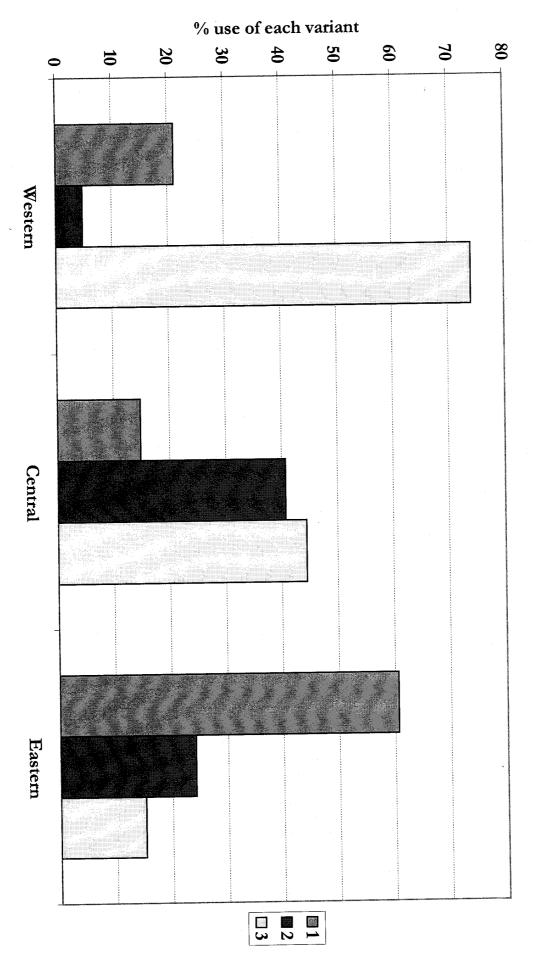


Figure 7: (u) among young Fenlanders

% use of each variant 60 20 30 40 50 10 2 Index score J 6 7 ∞ ■ Central Western

Figure 8a: (ou) among adolescent Fenlanders in Spalding (west) and Wisbech (central).

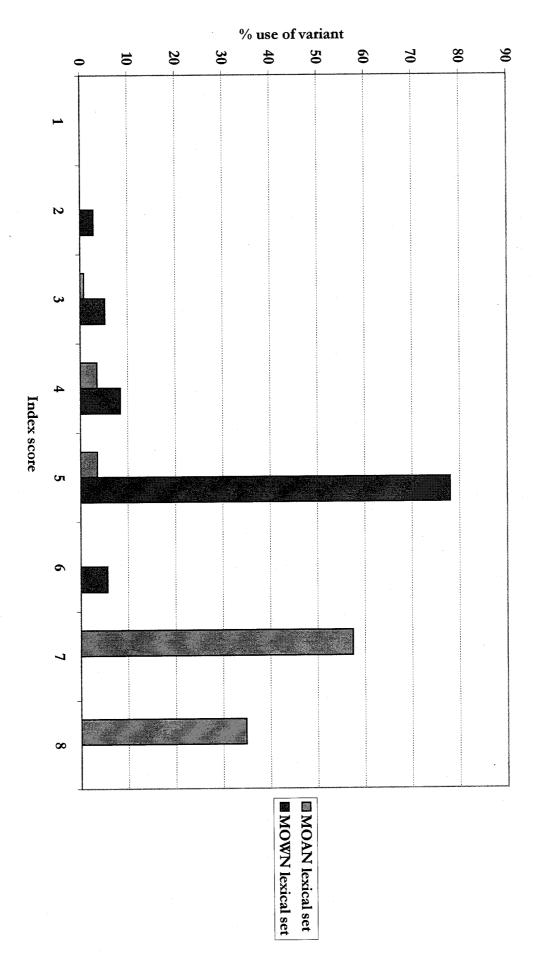


Figure 8b: (OU) among adolescents in the Terringtons (eastern Fens).

[v] forms throughout, like the older speakers in their community (Britain 2001b). The central Fenland adolescents in Wisbech use an interdialectal [x] variant, though it is these speakers who are the more variable of the three groups, with occasional [v], [v] and [A] variants occurring. Terrington adolescents consistently used [A] or [A] variants. As I have discussed elsewhere (Britain 1991, 1997b, 2001b), the present-day Fenland configuration of /A/ appears to be the result of dialect contact between Southern /A/ forms and Northern /v/ forms. Central Fenland areas are slowly focusing a phonetically intermediate [x] variant as a compromise between the two – an interdialect (Trudgill 1986). Fronted, London-type variants, appear, at this time at least, to be of rather peripheral importance and are only affecting those areas of the Fens – the far south – where older community residents consistently use fully southern [A] forms. It appears that fronting is blocked if the community form is closer than [A]. The only speakers in my sample who used fronted variants at all were two adolescents from the southwestern Fenland village of Warboys, and an older woman from the south-eastern village of Fordham, between the towns of Soham and Newmarket.

(AI)

The results of the analysis of (AI) are particularly interesting, and show parallels with (α) above. Previous research (e.g Britain 1991, 1997a, 1997b) has shown that the adult community in the western Fens have had fully open onsets of (AI) with a front close offglide [α I] for some considerable time. The rest of the Fens, however, show a radically different configuration which is sensitive to following phonological environment. As Figure 9 shows, both Wisbech (central) and the Terringtons (eastern) have closer onsets of (AI) before voiceless consonants than before other segments. In both locations, variants such [α I] are typical before /p f t s α k/. Before voiced consonants, schwa and word boundaries, a more open onset is found, which can range anywhere from [α I] to [α I]. In the central Fens, among older speakers, [α I] is typical. Traditionally, the eastern side of the Fens (and the rest of Western Norfolk) had relatively close onsets before voiced consonants too (see Britain 1997a).

The 'Canadian Raising' pattern (Chambers 1973) found in the central Fens – central onsets before voiceless consonants, open ones elsewhere - has been explained as a form of dialect contact induced *reallocation* (Britain 1991, 1997a, Britain and Trudgill 1999), the result of a phonologically conditioned mixing of the western open forms with the eastern centralised forms following Fenland reclamation. In the context of this research on innovation diffusion, it is particularly interesting to note what is happening to (AI) before *voiced* consonants. The adolescent data presented here in Figure 9 show that whilst the use of [51] before voiceless consonants remains solid both in Wisbech and the Terringtons, the use of more open and innovative *monophthongal* forms in pre-voiced environments appears to be just as popular in Wisbech as it does in Spalding. Indeed, one Wisbech girl had an individual index

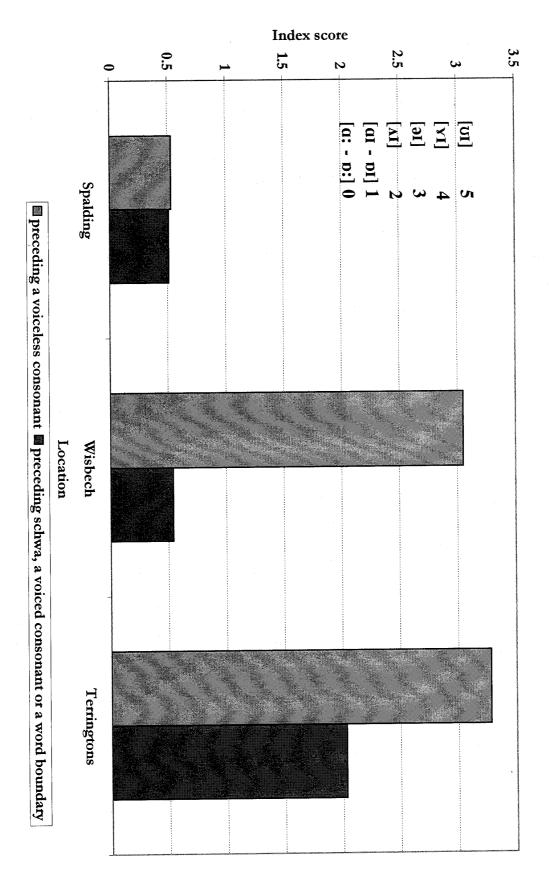


Figure 9: The use of (AI) among adolescents in 3 Fenland locations

score of 0.14, representing almost consistent use of [a: - p:] variants before voiced consonants. Hers was the lowest score of any individual across the whole speaker sample.

Tracking the diffusion of [a:] forms of (AI) from the South-East, therefore, is complicated by the fact that [aI] forms were already typical of the western side of the Fens, and that the rest of the Fens had a system marked by a clear allophonic split (with the split clearer in the central Fens than further to the East). It appears that the [a:] forms are making headway in the area, but only in those places where a variant with an open onset already existed which could be monophthongised. This includes the Western Fens in all phonological contexts (where a diachronic shift towards a greater use of [a: - b:] before both voiced and voiceless consonants is found), and in the central Fens, which had open onsets before non-voiceless segments only. Levels of monophthongisation in the eastern Fens are very low (and mostly found before /l/): variants in most other contexts are [AI] or more raised.

CONCLUSION: DIALECT DEATH?

There is considerable evidence, therefore, at both the vocalic and particularly the consonantal levels that rural Fenland Englishes are being changed by influences from South-Eastern England. It appears that in some cases they are being affected somewhat more slowly than urban centres which are further from the south-east than the Fens and so these results are suggestive of urban hierarchical diffusion in progress. The use of [f], [v], [v] and vocalised /l/, for example, is now common to all three of the locations under investigation here.

But today these three dialects are still distinct - not just from other dialects of the south-east but also from each other. Firstly, the changes seen in, for example, the consonantal structure of the three varieties have not made these dialects more similar to each other than they once were, since all three shared $[\theta]$, $[\delta]$, [I] and [t] before the innovations described earlier replaced them. Secondly, as we have seen above, the eastern Fenland adolescents of Terrington retain significant traces of the MOAN – MOWN split, as well as more raised onsets of (AI) in all environments. Youngsters in Wisbech retain their interdialectal [t] form of (A) and their 'Canadian Raising' like allophonic split of (AI). Spalding youth show only very early signs of making an (t) – (t) allophonic split, let alone beginning to produce open front variants. While the central Fens shows signs of levelling relative to the dialects to both sides (Britain 1997b), the eastern and western Fenland dialects retain other local and regional forms which differentiate them from the south-east and from each other. These include:

Terringtons (eastern Fens):

- Third person singular present tense –s variably absent: 'he go up Lynn every day'
- 'Do' conjunctions: 'Don't stroke the cat *do* he'll scratch you' (see Trudgill 1995 for further discussion of this feature)
- unstressed syllables consistently with /ə/ rather than /1/: 'running' [nennla 'i']; 'washes' [wplaz];
- Dummy 'that' for 'it': 'that's one eighty return into Lynn'
- Variable EAR-AIR merger on [ε:];
- Extensive smoothing: 'do it' [d3:?]; 'doing' [d3:n]; 'player' [plæ:], etc.

Spalding (western Fens):

- HappY tensing is still not categorical, so 'happy' is often still heard as [hap1] as opposed to [hapi:];
- [a] is used almost exclusively in the BATH lexical set (as opposed to [æ] further south and east), and in the TRAP lexical set, in contrast with [a: a:] further south and east).
- Continued use of 'while' for 'until' (e.g. don't get off while the bus stops)
- Short [ε] for /ei/ in the words 'take', 'make';
- Variable final –s voicing: 'us' [UZ]

It remains to be seen whether this differentiation will survive long into the 21st century, but at the end of the 20th century, extensive diffusion co-existed alongside local and regional differentiation. Firstly, then, these south-eastern dialects are participating in similar changes, but still survive as distinct varieties, even though just 30km separates the western from the eastern locations in this study. Despite the fact that some features of the south-eastern koine have diffused to the Fens, enough local differentiation still survives for us to claim that this variety has not (yet) been fully swept up into the empire of 'Estuary English'.

The evidence presented here also makes it clear, secondly, that innovations don't just overwhelm and obliterate local varieties, but, engaging in contact with them, often produce *compromise* outcomes, showing evidence of the interaction of the innovation with the traditional local form (Trudgill 1986). A number of the variables analysed here have shown this. Our discussion of the spread of monophthongal [a:] forms of (AI) and of (OU) fronting showed that where a dialect has two distinct allophones of a variable or preserves a historical split, the innovation only affected the forms which had

'compatible' pre-innovation realisations – in the cases discussed here, the Wisbech adolescents monophthongised [a1] to [a:] before voiced consonants, but did not do so before voiceless consonants where the traditional form was a raised [a1]. Similarly, in the analysis of (OU) fronting, I found that adolescents in the Terringtons fronted words in the MOWN set quite readily, but did so for the MOAN set hardly at all and for the most part retained the historical split of the traditional dialect. Notice also that whilst this 'compromise' brings the dialects in some respect more into line with those of dialects elsewhere in the south-east, it produces local systems where allophones or pairs of a split are actually diverging:

(OU) in the eastern Fens:

	Older speakers	Adolescents
MOAN	[muun]	[mʊun]
MOWN	[mʌun]	[mɐʉn]

(AI) in the central Fens:

	Older speakers	Adolescents
NIGHT	[S1cn]	[\$1cn]
TIME	[taɪm]	[ta:m]

The data also suggest, finally, that for innovations to diffuse most successfully, the pre-innovation form needs to be 'compatible'. If the dialect receiving the innovation does not have a form 'compatible' for change, it is less likely to accept the change or will do so more slowly. The two examples above show highlight this compatibility issue:

Success of change from [a1] to [a:]:

	Older speakers	Has the innovation succeeded
		among adolescents?
Spalding	[a1]	Yes, change well underway
Wisbech	[a1] before voiced consonants	Before voiced consonants, yes; before
	[31] before voiceless consonants	voiceless consonants, no: $*[\mathfrak{d}] \rightarrow [\mathfrak{a}]$.
Terringtons	[AI] before voiced consonants	No: *[əɪ - ʌɪ]→[ɑ:]
	[31] before voiceless consonants	

Success of fronting of (OU):

	Older speakers	Has the innovation succeeded
		among adolescents?
Spalding	[ʌu]	Yes
Wisbech	[ʌu]	Yes
Terringtons	MOAN set: [υ u]	Only in MOWN set;
	MOWN set: [ʌu]	*[∪u]→ [ɐʉ]

The failure for fronted variants of (Λ) to succeed in our three locations can be similarly attributed to this compatibility factor. It is well known that the change from [υ] to [Λ] and [υ] as part of the $/\upsilon/-/\Lambda/$ split has been phonetically very gradual (see, for example, Britain 1991, 2001b; Trudgill 1986; Chambers and Trudgill 1998). In Spalding, where almost all of the community consistently uses [υ - υ] variants, it is unlikely that [υ] would appear as a vigorous and successful incoming variant if the innovation has proceeded earlier in its journey as a regular gradual Neogrammarian sound change. Similarly, the Wisbech variant of [Υ] appears incompatible with the fronting of an open unrounded vowel. It could well be that for these innovations to advance further, the individual local systems must first change to become structurally compatible with the new incoming variant⁶.

To return finally to Gregory's (1985) concerns about traditional spatial diffusion models, it is clear, from this empirical investigation into linguistic innovations in the Fens, that we must heed both the structural *consequences* of innovation and the structural *contradictions* in their path. Innovations interact with the local systems they compete with – occasionally resulting in novel forms previously present in neither innovative nor conservative system – and in some cases these local systems are structurally incompatible with them.

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⁶ It is likely that vocalic *lexically diffused changes*, however, may well more readily overcome this compatibility barrier (as Labov suggests in Principles of Language Change (Labov 1994)). Whether there are any such lexically-diffused changes in the south-east, with the present state of research, is, however, unknown.

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