Why everyone should be interested in Northern English 't → r'.

Patrick Honeybone (Linguistics and English Language, University of Edinburgh)
`patrick.honeybone@ed.ac.uk`

Rationale
This paper has three main aims in relation to the Northern English 't → r' process
i. to consider its **sociolinguistic** status as a 'well-known feature' / stereotype, for example in *CHLDL*
ii. to consider its **geolinguistic** status as a widespread feature
iii. to consider its **autonomous-linguistic** status and its implications for phonological theory

Structure
Preliminaries: what is (synchronic, widespread) Northern English 't → r'? **1**
What evidence is there for the status and awareness of Northern English 't → r'? **2**
Where is Northern English 't → r'? **3**
What's special phonologically about Northern English 't → r'? **4**
Conclusions... **5**

---

1. Preliminaries: What is (synchronic, widespread) Northern English 't → r'?
We've already had an excellent introduction to the phenomenon that Wells (1982) calls 'the T-to-R rule', what Carr (1991) calls 'Weakening', and what Beal (2004) calls 'the pronunciation of /t/ as /r/'
- the typical description is Well's: t → r / [short V] __# V   ‖   in a small set of lexical items

In this talk, I make the following assumptions when discussing the phenomenon:

(1)   phonological **processes** map underlying segments onto surface segments
- the precise formalisation of these processes is not important here
- but a process embodies a generalisation about segments in some way such that a segment stored as one form, and typically realised in that way, can be realised as a different segment in a particular type of **environment**, which may straddle words in an utterance
  - in this case, and underlying /t/ can be realised as the rhotic [r]
  - 'the rhotic' can be (and is) implemented differently in different systems/accents
  - surface representations ≠ phonetics – they must be **phonetically implemented** before utterance

(2)   phonological processes can be **variable**, but are still phonological processes
- they can be sensitive to the same type of phonological, morphological and other linguistic factors as non-variable processes
- rather than categorial processes, which always apply in a particular environment, they describe in what environment process *can* apply, varying according to social factors
  - Carr (1991) is wrong to describe 't → r' as a categorial process, as Docherty *et al.* (1997) point out, but this does not mean that it cannot be approached phonologically

(3)   the phonological task in describing the environment of 't → r' is to describe where it *can* occur (= where it is common, where it would 'sound right' to native speakers); part of this for 't → r' is to recognise that it is **lexically** restricted – indeed, this is one of its most interesting features...

(4)   accents of English differ in their **inventory of phonological processes** just as they do in their inventory and distribution of segments, although the former doesn't seem to be so widely discussed; the geolinguistic distribution of 't → r' is more interesting than seems to be typically assumed...

(5)   the precise nature of the **environment** of a process can also vary from accent to accent

(6)   the **sociolinguistic salience** of particular phonological processes (= the extent to which people are aware that a process features in their accent) is interesting for phonological, sociolinguistic and dialectological reasons

2. What evidence is there for the status and awareness of Northern English 't → r'?

We have already seen that 't → r' is rather odd phonologically, and I return to this in section **4**; we will see that it's arguably rather special dialectologically in section **3**

- in this section I consider some sources of evidence for the phenomenon
- o both for its lexicophonological patterning and for its sociolinguistic and dialectological status
    - o it is crucial that we should have accurate data as to what the environment is if we are to understand the phonology of 't → r'
    - o it is crucial to consider the available data in order to understand its dialectological status

---

What sources of evidence exist for 't → r' and it's status?
(7) Naturalistic spoken data
(8) Native speaker intuition data
(9) Written data - especially **CHLDL**...

2.1 Naturalistic data
We have just heard (at least that's what I'm expecting!) about some naturalistically collected data. Such data, along with elicited/semi-naturalistic data is clearly crucial to our understanding of where 't → r' can occur phonologically...

- it can answer questions like
- o how **frequent** the phenomenon is, in comparison with competing realisations for /t/
- o whether there is **sociolinguistic variation** in terms of who uses 't → r', or who uses it more or less frequently than others
- but naturalistic data cannot answer so well the question of where 't → r' can occur (that is, its environment) from accent to accent
- o it is not necessarily the case that all possible environments will appear in a corpus
- o this is compounded by the fact that the process is variable

Docherty, Foulkes, Milroy, Milroy & Walshaw (1997) (see also Watt & Milroy 1999 and Carr 1999) discuss a detailed corpus investigation of the realisation of /t/ in **Tyneside English**, showing detail not before recognised

- in Tyneside, 't → r' competes with glottalisation to [ʔt] and other realisations

---

(10) data from Docherty, Foulkes, Milroy, Milroy & Walshaw (1997) showing variation in the realisation of /t/ in one word (*got*) from three speakers...

Speaker	Glottalised	[ɹ]
A	got a nice jacket got a dark red car	got a little bow
B	got a real monkey	got it got a big black dog
C	get out	got an accent put in

Alternation between glottalised realisations and [ɹ] by three Tyneside speakers

---

Docherty, Foulkes, Milroy, Milroy & Walshaw (1997) also show how sociolinguistic meaning can be attached to the different variants (ie, of course, this variation is not random)...

(11) data from Docherty, Foulkes, Milroy, Milroy & Walshaw (1997) showing gender, age and class variation in 2,666 realisations of /t/ in intervocalic environment in a corpus of 32 adults...

Variant →	ɹ	t̬	t	ʔt	ʔ	N
Older WC females	40	18	27	12	2	404
Older WC males	15	35	7	42	2	178
Young WC females	21	39	5	20	13	402
Young WC males	3	59	4	23	12	230
Older MC females	12	27	39	20	2	366
Older MC males	6	32	5	53	4	398
Young MC females	2	42	5	17	34	383
Young MC males	1	46	4	27	23	305

Percentage realisations of /t/ in word-final pre-vowel position, by speaker group, Tyneside corpus (WC = working class, MC = middle class, N = number of tokens analysed)

This and other discussion of such material (also in Carr, 1999) shows several points:
- how often the 't → r' process can be claimed to apply in this variety
- the [ɹ] variant is favoured by working class females, particularly those in the older group, but is rare in younger middle class speakers
- a [ɾ] realisation is more widely distributed socially (= [t̬] in Docherty *et al.*'s transcription)
- word-list-type data do not exhibit 't → r' which is more common in conversational data

Such work is unlikely to give us the whole story, however
- which words can 't → r' occur in?
o Carr (1991) claims it occurs in Tyneside in words including
o *fit, met,*
o (all?) bisyllabic words with stress on the second syllable: *allot, delete, incite, excite...*

2.2 Native speaker intuition data
Native speakers of varieties that feature 't → r' seem to have quite robust intuitions about where the process can occur...
- it is phonologically interesting that such intuitions can readily be tapped, indicating conscious awareness of the process among speakers (unlike aspiration or, perhaps, glottalisation)
- such intuitions can supply crucial data which is (more than) supplementary to that gathered naturalistically
o I don't give many answers on this here, but rather just raise the issue; offering questions rather than results...

For those of you with intuitions about this...

(12) can 't → r' occur in ... ?
o grammatical words: *what, not, but, that*
o verbs: *get, got, shut, put*
o nouns(?): *lot*
o word-internal: *better, matter*
- *get off* [gɛɹɒf]
- *shut it* [ʃʊrɪt]
- *shut up* [ʃʊrʊp]
- *not it* [nɒɹɪt]

(13) but not in. .. ?
o *it* (?) (*it'll* [ɪɹl̩] but *it a* *[ɹɹə]?)
o *shot, cut, set, sit*
o *dot, hut, cat, knot*
o *butter, fatter, letter*
- *set off* *[sɛɹɒf]
- *cut it* *[kʊrɪt]
- *shot up* *[ʃɒrʊp]; *cut up* *[kʊrʊp]
- *dot it* *[dɒɹɪt; *knot it* *[nɒɹɪt]

(14) Does the second vowel have to be unstressed (as Carr, 1991, claims)?	
• *get Alexis* [gɛrəˈlɛksɪs]	• *get Alex* ✓?[gɛrˈaləks]

Docherty *et al.* (1997) find that sentence stress is possibly also a factor governing the likelihood of application of 't → r' in Tyneside, claiming that it is more likely to occur when the main phrasal prominence is not located on the syllable where the /t/ is the rhymal consonant – thus 'T-to-R' is more likely in *get ˈup* and *put it ˈdown* than in ˈ*fit her*.

(15) Is there a constraint against [r] in the following onset?	
• *get along* [gɛɹəˈlɒŋ]	• *get around* ?[gɛɹəˈɹaːnd]
• *put Hattie* [pʊɹˈatɪ]	• *put Harry* ?[pʊɹˈaɹɪ]

There are problems both accessing and assessing such intuition data, but it seems to offer an essential guide to the 'possible' environment for 't → r'
• at the very least it can provide a guide for what types of environments to test in elicitation data

---

2.3 Non-reference English in literature: 't → r' in CHLDL
There is a further source of evidence for 't → r' which is robust and common
• this can function as evidence for the phonology of the process
o but is perhaps more important as evidence for the sociolinguistic status and dialectological incidence of the process

There is, of course, a range of material which seeks to represent the features of non-reference varieties of English in **writing**
• there are several phenomena in which non-reference English occurs in written forms, involving several different genres, including several in which this occurs quite calculatedly and on purpose
o non-standard morpho-syntax + lexis can be quite straightforwardly represented
o non-reference phonology cannot be so easily represented – **non-standard spellings** are used in various ways and in various attempts to represent the types of phonological features just discussed
  o this non-standard respelling is one of the most clear characteristic of the genre(s), however

(16) 'old', traditional **dialect literature** is one of the most widely recognised form of this, and is often seen as 'valuable' and 'legitimate', dating from the mid-eighteenth century (Shorrocks, 1996), and as a form of 'high' literature (see, among much else, Malham-Dembleby, 1912); this form of non-standard writing has been discussed in many places (for its linguistic potential, for example, in Blake, 1981, Taavitsainen, Melchers & Pahta, 1999 and Trudgill 1999)

(17) representation of **literary dialect** in dialogue in 'high' and 'popular' literature is even more commonly discussed than traditional dialect literature and includes some of the dialogue in the works Eliot, Dickens, Twain, and Hardy and much else, including such 'popular' writers as Catherine Cookson and Katie Flynn; this kind of material has been discussed quite considerably in various analytical traditions (see, for example, Poussa 1999, Reitz, 1992, Taylor, 1993).

(18) the most helpful for us, however, is **contemporary humorous localised dialect literature** (= **CHLDL**), which is informal, common and often insightful, but is also often overlooked

2.3.1 What is CHLDL?

The key characteristics of **CHLDL** are that it is...

- current (= contemporary), being published continuously since the 1960s
- typically published by small, regional publishers
- consistently featuring humour, often with cartoons (another sign of humour)
  - the humour is often 'vulgar', may be offensive, featuring common swearwords
  - the humour need not be 'laughing at' humour, but can be perceived as 'laughing with' humour
- not written by linguists; written by and for 'lay-people'
- typically inexpensive
- well-received - it often sells many copies and never seems to go out of print


CHLDL is clearly localised, and much of it is only available for purchase in the areas where the variety is spoken. In this sense, it is meant for those who speak the variety. Non-speakers may, indeed, find it difficult to interpret some of the orthographic conventions employed, although it will be clear to all that the intention is to represent a non-reference accent/variety.

- some passages are simply jokes written in Standard English – typically 'local jokes' which require the recognition of features of the area where they are published.
- however, the volumes do all have some real attempts to represent the morphosyntax, lexis and phonology of the variety that they claim to represent
- they typically seek to portray **extreme** varieties – the most localised variants of linguistic variables that are typically only used by a proportion of the speakers only some of the time
- the volumes **vary considerably**...
  - from volume to volume, in terms of the effort made to represent the variety
    - some volumes represent more features than others
  - even within one volume in terms of the success and consistency
    - sometimes several conventions are used to represent the same feature

---

CHLDL, however, has attracted surprisingly little attention. There has been some linguistic work on it (eg, Beal 2000), it is mentioned in passing in other work (eg, Knowles 1974, Watt & Milroy 1999) and similar issues have been discussed in connection with somewhat different phenomena (eg, McClure 1997); it remains little described and discussed, however.

Some initial exemplification of **CHLDL** for Liverpool English (claimed by its authors to be chronologically the first of the genre) is given in (19)...

(19) Kelly, Shaw & Spiegl (1965) and Minard (1972)
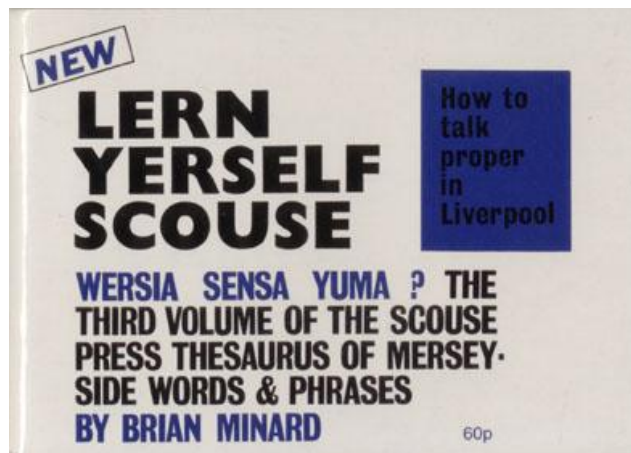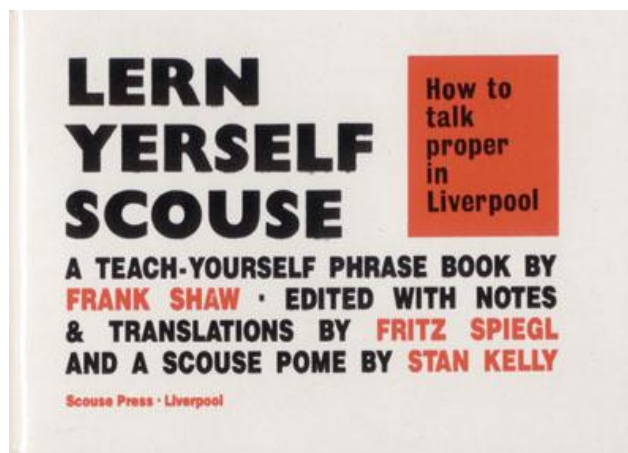
CHLDL exists for other varieties, too, as shown below for **Bristol**, **Lancashire** and the **NE of England**

(20) Dobson (1969/1986/2003), Robson & Wiltshire (1998) & Dutton (1978/1982/2003)

The kind of texts under discussion here do not form a simple and entirely coherent group, yet they tend to have a certain set of features in common; (19) and (20) illustrate one of the most typical manifestations of the **CHLDL** phenomenon:
(**CHLDL¹**) = jokey 'dictionaries' and pseudo-phrase-books
(**CHLDL²**) = longer texts – collections of jokes and short pieces of writing

---

2.3.2 What kind of phonological features appear in CHLDL?
While non-standard morpho-syntax and lexis is quite straightforwardly representable in **CHLDL**, several issues arise in the representation of non-reference phonology
(21) it is constrained by the general limitations of writing / alphabets
- suprasegmental features cannot be represented
- LivEng intonation and voice quality are unrepresentable, although both are well recognised

(22) it is constrained by the graph-phone correspondences made available by **RefEng**
- it is unclear how to spell [ʊ] in STRUT, for example; there is no unambiguous grapheme for [ʊ]
- the use of lax/short [a] in the BATH and TRAP lexical sets is also practically unrepresentable

The successful representation of non-reference phonology in **CHLDL** thus...
(23) relies on the existence of a reference / standard variety with standard graph-phone correspondences
(24) requires an awareness of the 'linguistic features' of the variety that are worth representing

There can be a set of conventions for writing features in a variety's **CHLDL**, to the extent that:
- these features are **salient** for the speech community and
- they can be written using the resources of the alphabet in general
  - and the kinds of graph-phone correspondences that exist for spelling the reference variety

---

3

2.3.3 Does 't → r' appear in CHLDL??

(25) Harris (2003) 'Willie' in *The Liverpool Echo*

This cartoon, from the main daily newspaper published in Liverpool barely counts as **CHLDL** at all; it does, however, spell 't → r' twice. This fits in with the general commonness of 't → r' in Scouse **CHLDL**...

(26) Kelly, Shaw & Spiegl (1965; 48-49)

[*Anyone gorra proey* (=anyone got a programme) +++]

This is classic **CHLDL**; it spells 't → r', too, but also spells several other features.

Indeed 't → r' is the subject of overt comment in Scouse **CHLDL**...

(27) from Fazackerly (2001) *Scouse English*:
- Where lazy southerners, especially on the BBC, omit the letter 't', Scouse substitutes an alternative, usually an 't': e.g. *norra nother one!*

The phenomenon is by no means limited to **CHLDL** for Scouse, however
- it is widespread in CHLDL from a range of varieties:

(28) from Dobson (1969/2003; 31) *Larn Yersel' Geordie*.
    G. Agorrit on a storeclub   E. It was obtained on credit at the Co-operative Wholesale Society

(29) Dutton (1978/1982/2003; 3, 4, 73) *Completely Lanky*.
    Worrart gooin't' do fer a face when King Kong wants his arse back?
    [Try going round with a bag over your head]

    Th'art nowt burra slopstone blonde.
    [I perceive that you hair is bleached. A Grade A put-down – the slopstone is an old-fashioned Lancashire stone sink, whence the insult intimates the colour of the insultee's hair as obtained]

    Ah've gorra lasso...
    [I've got a girl who...]

Clearly, **CHLDL** as evidence for 't → r' can hardly give us any more systematic data than can naturalistic spoken data in terms of where the process can occur phonologically
- an implication of the **CHLDL** data is, however, that 't → r' is recognised by native speakers as a clear feature of their accents – so characteristic that it should figure in written forms

3. Where is Northern English 't → r'?

Although most of the evidence for 't → r' in this paper has come from Liverpool and Tyneside English, it is very clear that it is not restricted to the 'Celtic fringe' of Northern England...
- we have also seen evidence for 't → r' from West Yorkshire and Lancashire

An obvious question to ask of the phenomenon is:
(30) what is the geolinguistic spread of 't → r'?

> Wells (1982) describes it as a feature of the "middle and far north" (perhaps even excluding Liverpool), but this is clearly too restricted
> - it is found in Derbyshire (Derek Britton, pc) and in the Nottingham-Lincolnshire-Leicestershire area (own notes)
> - this connects with the complicated place of the Midlands 'within' the north
> o and the very notion of a binary north/south linguistic divide

3.1 The North/South divide

As is well-known, it is common in work on 'traditional dialects' (for example in Trudgill, 1999), to distinguish between three basic types of English in England: Northern, Central and Southern
- with Northern English being that north of the Lune-Humber line

It is also well recognised that this is (now?) a problematic division, and the current psycho-geography of British people, and the typologies of varieties produced by dialectologists, paint a more complex picture, as, for example, Wales (2000) discusses...
- most people seem to perceive a basic-two way North-South divide in England
- o Wells (1982, 349) writes "'Northern' ... might more precisely be glossed 'midlands or northern'.... I call everything from the Severn-Wash line northwards 'the (linguistic) north'"
- o Trudgill (1999, 65-67) assumes a basic linguistic North/South divide in Anglo-English, based on a small set of particularly salient phonological isoglosses

Typically just **two** features (=two isoglosses) are perceived as highly salient in this regard; these isoglosses run close to each other, as shown in the map from Chambers & Trudgill (1980) (taken from Wales 2000):
(31) the vowels in the FOOT and STRUT lexical sets
(32) the vowel in the BATH lexical set

[MAP of these two isoglosses]

Although, as far as I know, the precise geolinguistic extent of 't → r' is not known, it seems another good candidate for a basic two-way distinction between the linguistic North and the linguistic South.

4. What's special phonologically about Northern English 't → r'?

We have already seen that 't → r' is intriguing in terms of its linguistic patterning; there is more to note in this regard, however...

- it seems to display properties which make it an 'impossible' process – that is, it is either a clear counterexample to or to it fits problematically with the predictions of certain phonological models
- aspects of this were discussed in Carr (1991), but the implications do not seem to have been widely picked up

---

4.1 The phonological properties of 't → r'
The standard rule format for 't → r' is (again)

- t → r / [short V] __# V   ‖   in a small set of lexical items

This 'rule' could be rewritten in other phonological formalisms (using constraints or principles); the standard phonological parts of this generalisation are not problematic – it is the restriction to a non-phonologically defined subset of environments which is interesting here. Carr (1991) describes these restrictions (for Tyneside English) thus:

- it is sensitive to syntactic category:
- o it does not occur in nouns (with the quasi-exception of *lot*), adjectives or prepositions, even when they are monosyllabic and followed by an unstressed syllable;
- o it occurs in certain words belonging to non-lexical categories (*not, but, what, that*) and in verbs (*put, hit, met, get, got, thought, fit*)

> We have already seen that the precise set of words involved probably differs within the wider Northern linguistic area where the process is found. This is not in and of itself remarkable – the remarkable feature is the fact that it is restricted in this way at all, given the process's other restrictions

---

4.2 't → r' mixes the properties predicted for lexical and postlexical processes
Some of the features of 't → r' are also found in the descriptions given to other phonological processes.

(33) the 't → r' structural change is reminiscent of (and probably historically related to) foot-internal tapping of /t, d/, found in a wide range of Englishes (including most American, and some Irish and Southern Hemisphere varieties, see Harris 1994, Carr & Honeybone, to appear, and much elsewhere), which is often viewed as a case of **lenition** (for a discussion of the notion 'lenition', see, among others Lass & Anderson 1975, Lass 1984, Harris 1990a, 1994, Kirchner 1998, Honeybone 2001, 2002).

(34) some of the founding processes of generative phonology were claimed to have lexical **exceptions**, and this is similar in principle to the situation for 't → r', which only affects certain lexically specified words and excludes all others

(35) there are other well-known cases of phonological processes which are highly restricted in their application – processes which often affect the functional, frequent vocabulary first, before undergoing **lexical diffusion** throughout the lexicon, such as

- o 't → h' pre-pausally in Liverpool English, which affects a similar but not precisely the same set of monosyllabic words (and polysyllabic words with final unstressed syllables, too), see Watson (2006)
- o /æ/ tensing in Mid-Atlantic US English (see, for example, Labov 1994) – this is a morpheme-internal process

It has been quite widely assumed that phonologists and phonology can make a distinction between two and only two fundamental types of processes: **lexical** and **postlexical processes** (as in Kiparsky 1982, 2000, for example, and Bermudez-Otero, 2006)

- these are claimed to be quite distinct types of entity which have different places, roles and qualities in the phonological grammar

> Some of the characteristics of these two types of processes have been claimed to be (see, for example, Harris, 1990b, and, differing somewhat, Bermudez-Otero, 2006)
> - lexical processes may have exceptions
> - lexical processes may not make reference to supra-lexical phonological constituents
> - processes that speakers are consciously aware of are typically lexical processes
>
> o postlexical processes may not have exceptions
> o postlexical processes may make reference to supra-lexical phonological constituents
>   o and thus may apply across word boundaries
> o postlexical processes are insensitive to word-internal morphological structure

(36) The Northern English 't → r' process illustrated here, however, is a case of a process which is both **lexically-restricted** (and hence must be a lexical process) and **cross-lexical** in its environment (and hence must be a postlexical process), it seems to mix the properties of these two types of processes, counter to the predictions of the model.
- Carr (1991) noted this, but his suggested solution (the assumption of a post-lexical derived environment – that is post-lexically created feature) unfortunately doesn't rescue the distinction, because 't → r' does not only occur foot-internally, and does occur both word and morpheme-internally (in better, matter).

(37) Furthermore, if it is reasonable to view 't → r' as a case of lenition, it runs counter to Labov (1994)'s identification of lenition processes as classic '**neo-grammarian**' processes (that is, they should be cases of 'regular sound change' and not subject to lexical diffusion).
- On pp 539-540, Labov writes that "consonant changes in manner of articulation" are most often phonetically gradual, predicting (on p. 543) that these types of change/process should be 'regular' and not subject to lexical diffusion. However, 't → r' involves a change in manner of articulation, and yet is subject to lexical diffusion.

---

5. Conclusions...

Everyone should be interested in Northern English 't → r' ...

Because...

Although the precise linguistic patterning and geolinguistic limits of 't → r' are still a little unclear
i. it's a relatively well known feature, being frequently transcribed in contemporary Dialect Literature
ii. it's one of quite few features which might legitimately be described as 'pan-northern'
iii. it's phonologically fascinating as it combines lexical sensitivity with a post-lexical environment

References

Beal, J. (2000) 'From Geordie Ridley to *Viz*: popular literature in Tyneside English' *Language and Literature* **9**, 343-359.

Beal, J. (2004) 'The Phonology of English Dialects in the North of England' in Kortmann, B. (ed.) A Handbook of Varieties of English. Berlin: Mouton.

Blake, N.F. (1981) *Non-Standard Language in English Literature.* London: Andre Deutsch.

Bermúdez-Otero, Ricardo (forthcoming 2006). Diachronic phonology. In Paul de Lacy (ed.), The Cambridge handbook of phonology. Cambridge: Cambridge University Press.

Carr, P. (1991), 'Lexical properties of postlexical rules: postlexical derived environment and the Elsewhere Condition' *Lingua* 85, 255-268.

Carr, P. 1999 'Sociophonetic variation and generative phonology: the case of Tyneside English.' Cahiers de Grammaire 24, 7-15.

Carr, P. & Honeybone, P. (to appear) 'English phonology and linguistic theory: an introduction to issues, and to "Issues in English Phonology".' To appear in Carr, P. & Honeybone, P. (eds) 'Issues in English Phonology' Special double issue of *Language Sciences*.

Chambers, J. & Trudgill., P. (1980) *Dialectology*. Cambridge: CUP.

Dobson, S. (1969/1986/2003) *Larn Yersel' Geordie*. Morpeth: Butler.

Docherty, G, Foulkes, P., Milroy, J., Milroy, L., Walshaw, D. (1997) 'Descriptive adequacy in phonology: a variationist perspective' *Journal of Linguistics* 33, 275-310.

Dutton, D. (1978/1982/2003) *Completely Lanky*. Reprint of *Lanky Spoken Here* (1978) and *Lanky Panky* (1982). Chorley: Book Clearance Centre.

Fazackerly, F. (2001) *Scouse English*. London: Abson.

Harris, F. (2003) 'Willie' *The Liverpool Echo*.

Harris, J. (1990a) 'Segmental complexity and phonological government' *Phonology* **7**, 255-300.

Harris, J. (1990b) 'Derived phonological contrasts'. In Susan Ramsaran (ed.) *Studies in the pronunciation of English: a commemorative volume in honour of A.C. Gimson*. London: Routledge.

Harris, J. (1994) *English Sound Structure*. Blackwell: Oxford.

Honeybone, P. (2001) 'Lenition Inhibition in Liverpool English' *English Language and Linguistics* **5**, 213-249.

Honeybone, P. (2002) *Germanic Obstruent Lenition; Some Mutual Implications of Theoretical and Historical Phonology*. Ph.D. dissertation, Newcastle University.

Kelly, S., Shaw, F. & Spiegl, F. (1965/2000) *Lern Yerself Scouse: How to talk proper in Liverpool*. (Vol 1). Liverpool: Scouse Press.

Kiparsky, P. (1982). Lexical phonology and morphology. In I.S. Yang (ed.), *Linguistics in the Morning Calm*, pp. 3-91. Hanshin, Seoul.

Kiparsky, P. (2000) 'Opacity and cyclicity.' *The Linguistic Review* **17**. 351-365.

Kirchner, R. (1998) *An Effort-Based Approach to Consonant Lenition*. Ph.D. dissertation, UCLA.

Knowles, G. (1974) *Scouse, the Urban Dialect of Liverpool*. Unpublished PhD dissertation, University of Leeds.

Labov, W. (1972) *Sociolinguistic Patterns*. Philadelphia: University of Pennsylvania Press.

Labov, W. (1994) *Principles of Linguistic Change*. Volume one: *Internal Factors* Oxford: Blackwell.

Lass, R. (1984) *Phonology*. Cambridge: CUP.

Lass, R. & Anderson, J. (1975). *Old English Phonology*. Cambridge: CUP.

Malham-Dembleby, J. (1912) *Original Tales and Ballads in the Yorkshire Dialect*. London: Walter Scott Publishing.

Minard, B. (1972/2000) *Wersia Sensa Yuma?* (*Lern Yersel Scouse: How to talk proper in Liverpool*. Vol 3). Liverpool: Scouse Press.

Poussa, P. (1999) 'Dickens as sociolinguist: dialect in *David Coperfield*' In Taavitsainen, Melchers & Pahta (1999).

Reitz, U.-C. (1992) *Dialekt bei D.H. Lawrence*. Frankfurt am Main: Language.

Robson, D. & Wiltshire, V. (1998) *Krek Waiter's Peak Pure Bristle*. Bristol: Dervish.

Shorrocks, G. (1996) 'Non-standard Dialect Literature and Popular Culture.' In Juhani Klemola, Merja Kytö & Matti Rissanen (eds.) *Speech Past and Present: Studies in English Dialectology in Memory of Ossi Ihalainen*. Frankfurt am Main: Peter Lang, 385-411.

Taavitsainen, I., Melchers, G. & Pahta, P. (1999) *Writing in Nonstandard English*. Amsterdam: John Benjamins.

Taylor, D. (1993) *Hardy's Literary Language and Victorian Philology*. Oxford: Clarendon Press.

Trudgill, P. (1999) *The Dialects of England*. Second Edition. Oxford: Blackwell.

Wales, K. (2000) 'North and South: An English Linguistic Divide?' *English Today* **16/1**, 4-15.

Watson, K. (2001) 'The realization of final /t/ in Liverpool English' *Newcastle and Durham Working Papers in Linguistics* **5**

Watson, K. (2006) *The Phonetics and Phonology of Plosive Lenition in Liverpool English*. Ph.D. dissertation, Edge Hill College, Lancaster University.

Watt, D. & Milroy, L. (1999) 'Patterns of variation and change in three Newcastle vowels: is this dialect levelling?' in Foulkes, P. & Docherty, G. (eds.) *Urban Voices*. London: Arnold, 25-46.

Wells, J. (1982) *The Accents of English*. Volume 2. Cambridge: CUP.