CONVERSATIONAL AND PHONOLOGICAL FACTORS GOVERNING THE 'FINAL RELEASE RULE' IN TYNESIDE ENGLISH

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ABSTRACT

Although glottalisation, including glottal replacement, is phonologically more widely distributed in Tyneside than many other varieties of English, it appears much *less* widely distributed in certain sites. This paper reports findings from a study of stop realisation by 32 Tyneside English speakers. With few exceptions glottals do not occur in pre-pausal or turn-final position. It seems that whilst phonological factors may contribute to a complex structure of constraints on variation, the operation of the 'final release rule' is also dependent on aspects of conversational and/or utterance structure.

INTRODUCTION

Glottal and glottally reinforced stops have wide phonologically-conditioned distributions in Tyneside English. However, previous work on Tyneside and neighbouring Durham English [1, 2] has noted that these forms appear blocked in turn-final and pre-pausal positions. Instead, fully released, non-glottalised stops appear almost categorically in these sites. Thus, although glottal forms may appear sentence internally in words like sheet, bite, [t] is fully released when these items occur before a pause or at the end of a speaker's turn. It seems, then, that a major role is played by conversational and/or utterance constraints, which may perhaps even supersede phonological constraints in governing the operation of the 'final release rule'.

The 'final release rule' (FRR) has been investigated mainly via auditory analysis as part of our current study which focuses on phonological variation and change in contemporary spoken British English. In the near future we intend to supplement the data presented in this paper with detailed analysis of the phonetic correlates of the stops under discussion. Our aim is to combine sociolinguistic research and experimental phonetic analysis with the main goal of assessing the adequacy of different phonological frameworks with respect to these data.

METHOD

Fieldwork in Tyneside has produced recordings of 32 speakers (2 social groups [WC/MC] * 2 sexes [m/f] * 2 age groups [y:16-25/o:45-65] * 4 speakers per cell). Informants were recorded first in a (usually single sex) dyad conversational exchange for around 50 minutes. One young WC female, K, was recorded twice (see Discussion). Informants were then asked to read a word-list constructed to elicit citation forms, including some single items (e.g. sheet, boat), sequences including the same word-final variable (e.g. I beat it, drat it), and disyllabic forms with medial stops (e.g. better, carter).

Analysis of the word-list items was supplemented by examination of similar tokens in the conversational data. Here the aim was to identify 30 tokens per speaker of both pre-pausal and turn-final /t/. This was achievable in most cases in pre-pausal position, but proved more difficult in turn-final position, partly due to the fact that in several cases it was unclear precisely into which category a particular token fell. Generally, token counting was executed after the first 10 minutes or so of the tape had elapsed, in order to ensure that speakers had relaxed into a more natural mode of speech (although where it proved impossible to identify 30 tokens for a speaker, the whole tape was analysed).

RESULTS

Where /t/ appears in medial or intervocalic position, glottalised variants are common, particularly in the speech of males. We do not have space to discuss the phonetic or distributional characteristics of these cases here, but see [3, 4].

As regards items elicited via the word-list, the FRR is applied categorically by 31 of the 32 speakers in monosyllabic /t/-final items. That is, fully released, non-glottalised stops are produced 100% of the time. The exceptional informant is the young WC female K, who produces glottal stops on 2 out of 30 items (print and salt; i.e. 7% failure of the FRR).

Similar but somewhat more complex patterns are exhibited in the conversational data. Tables 1 and 2 present results for this data, showing for each speaker group the number and percentage of glottal variants - i.e. violations of the FRR.

Table 1: conversational data, pre-pausal position - number (N) and percentage of glottal or glottalised tokens

class	group	tokens	N	%
WC	OF	120	2	2
	OM	111	2	2
	YF	101	30	30
	YM	120	6	5
MC	OF	120	7	6
	OM	116	2	2
	YF	120	5	4
	YM	120	8	7

In pre-pausal position (Table 1), for 7 of the 8 groups only a few violations of the FRR are found: between 2% and 7% for the groups as a whole, with 11 individual speakers producing 100% fully released stops. In stark contrast to this near categorical pattern, the young WC females (K's group) have 30% glottal tokens. K herself produces glottals in 15 out of 30 tokens (50%).

In turn-final position (Table 2), a comparable distribution is found, although the small number of tokens identified for several groups means that some caution should be exercised when interpreting these figures. No less than 19 speakers deploy the FRR categorically (but in some cases only two or three tokens of turn-final /t/ were identified). It appears, however, that no significant differences exist between the pre-pausal figures and the corresponding turn-final figures. The issue of whether the phenomenon should be considered pre-pausal or turn-final is important in that if it is the latter an interactional explanation should be sought. If, on the other hand, the FRR is triggered pre-pausally, then a linguistic (phonological) explanation is better.

Table 2: conversational data, turn-final position - number (N) and percentage of glottal or glottalised tokens

class	group	tokens	N	%
WC	OF	15	0	0
	OM	9	0	0
	YF	36	14	39
	YM	9	1	11
MC	OF	31	2	6
	OM	33	1	3
	YF	70	4	6
	YM	66	3	5

DISCUSSION

The patterns in the Tyneside data can be explained partly in phonological terms, but also require reference to the type of explanation offered by conversational analysis [5].

In careful speech, illustrated by the word-list data, glottal variants in final position are almost categorically

prohibited, whilst the FRR is concomitantly found to apply almost without exception. Contrariwise, analysis of casual speech (represented by the conversational data) shows that violations of the FRR can occur. The exceptions seem overwhelmingly to occur in short vowel items. In long vowel items such as great, meet, the FRR is effectively applied categorically. Amongst the short vowel class, certain items (e.g. that, get, it) occur very frequently. Glottalised forms appear very commonly in these items, such that we might hypothesise that FRR violations are in the main restricted to them. Glottalisation clearly seems to be spreading into pre-pausal and turn-final environments, where it had previously been blocked. It still is blocked in careful speech styles, as well as by and large in the speech of older informants. In traditional phonological terms, then, this process might be well described as operating via lexical diffusion, with frequently occurring items in the vanguard of the change.

The most remarkable difference in FRR application in comparison to other groups is displayed by the young WC females. This is true in both pre-pausal and turn-final context. The high glottalisation scores for this group in the main conform to the lexical patterns already described. However, the conversational behaviour of three of the four speakers in the group, H, K and L, is markedly different from that of the other subjects in the study.

Speaker H (who speaks much less than her partner on the tape) produces glottal variants in 7 of 13 (54%) pre-pausal tokens, and 3 of 8 (38%) turn-final tokens. The glottals tend to occur in common items (got, that, it, out, about) and in items which are clearly turn-final (all right, but - used in Tyneside as a conjunction in the sense of 'though').

Speaker K's behaviour is particularly striking, and gives a strong indication

that the FRR is governed principally by conversational constraints. K, as noted, produces 50% glottal forms in pre-pausal position, and 60% (9 of 15 tokens) in turn-final context. Recall, though, that K was recorded twice, first with her brother, and later with a female friend, L. The figures just described, with high use of glottal forms, occur in the conversation with L. However, K's pattern of FRR application in conversation with her brother is comparable to that of other informants: just 4 out of 30 (13%) pre-pausal tokens are glottalised, whilst the FRR applies in all 4 turn-final tokens.

K's violations of the FRR occur overwhelmingly on the sentence tag and that (e.g. you just miss your friends and that). This tag occurs 11 times during the whole tape of K's conversation with her brother, and in 6 of these cases (54%) a glottal form is also used.

Speaker L (K's female dyad partner) produces 6 pre-pausal glottal tokens, 4 of which occur on the tag and that. This tag is much rarer in the speech of other informants, but other tags which terminate in /t/ such as isn't it do appear occasionally to attract glottalised forms, especially in the speech of younger people. For example, the young MC male P produces 4 pre-pausal glottals, 2 of which fall on the tag isn't it. Similarly, another young MC speaker R produces his only pre-pausal violation of the FRR on the tag wasn't it.

The association of FRR violations with tags suggests support for the account in [1]: interactants are oriented to a fully released variant of [t] in a dialect with heavy use of glottals as a signal that a speaker is yielding the floor. In addition to phonetic cues such as fully released [t], grammatical turn-yielding cues such as tags are also available to speakers. Since tags already function as turn-handover cues, this may account for why the phonetic cue often fails to apply in them. In addition, most

/t/-final tags involve frequently occurring words such as it and that, which as we have already noted are the items most susceptible in general to attracting glottal variants.

The use of tags has been identified as a feature predominantly of female speech [6]. Our data support this to an extent, with few tags used by males (but also few by the young MC females). Younger WC females use by far the highest number of tags, which partly explains why they have much the highest rate of failure of the FRR.

Thus, violation of the FRR must be accounted for with reference to conversational/utterance constraints, in this particular case identification with sentence tags. It remains to be investigated whether the FRR is *best* explained in terms of conversational structure, or whether e.g. stress and/or intonation patterns play an important role as well. In addition, it should also be noted that the FRR is usually applied before mid-sentence pauses, even when it seems clear that the speaker's turn is not over. Examples include the fact tha[t] # the kids are a lot more streetwise, the da[t]e # was that day. These instances may be regarded as examples of speakers tailing off in mid-sentence and leaving an opening for a turn handover. However, the alternative account that it is the phonological (pre-pausal) context which triggers the FRR must also be borne in mind. If the latter explanation is indeed the better, it may indicate that the constraint on the FRR in general is best viewed as pre-pausal, supporting the suggestion made in [2] rather than that in [1]. We intend to investigate this issue further, although so far we have experienced difficulty in identifying unambiguously whether some particular tokens are pre-pausal or absolutely turn-final.

Our findings have wider implications, particularly with regard to the function of phonological units [7]. Whilst

variation in speech sounds has traditionally been regarded as primarily lexical-contrastive in function, what we can clearly see in the case of the FRR is variation being employed in stylistic and demarcative functions. Such variation is certainly systematic, but it is clear that it cannot be governed purely by phonology, given the goals traditionally assumed by phonologists. The relationship between these various constraints and functions has scarcely yet been investigated, but would certainly serve to enhance our understanding of what makes a native speaker a native speaker.

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