

ANOTHER MARGINAL PHONEME OF ENGLISH

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There is a relatively large - and still growing - literature concerning a distinction in many varieties of English between a short [æ] and a longer and/or diphthongised [æ:] (Bernard 1963; Fudge 1977; Lass 1984: 34; Lawrence 1993; Trager 1930). The precise words in which this distinction is found vary from variety to variety, but may include minimal pairs such as *band* and *banned*, *madder* (the colour) and *madder* ('more mad'), *pans* ('pots') and *pans* ('criticises strongly'), *can* (modal) and *can* (noun or derived verb) and may give rise to pairs which do not rhyme properly such as *baddy* and *daddy*, *sad* and *glad*, *stag* and *slag*, *clammy* and *jammy*, *passion* and *fashion* and so on. What is particularly interesting about these two 'types of æ' is that most speakers appear to be unaware of them until specific attention is drawn to them, and even then may have difficulty in saying which occurs in any particular word; also, they do not behave like prototypical phonemes, most of the distribution being predictable, and the places where it is distinctive apparently differing from speaker to speaker or at least from dialect to dialect. Accordingly, people cannot use this distinction to stress which word they mean ('Did you say *madder* or *madder*?'). In all these senses, the contrast between [æ] and [æ:] is marginal in the English phonemic system.

In this paper I wish to consider what appears to be another equally marginal phoneme in my own speech. Some biographical details are thus in order. I was brought up in the north of England, from the age of seven in what is now North Yorkshire. My parents were both

speakers of varieties of RP, though my mother had traces of both Scottish and Welsh English on occasions. At the age of 17 I went to university in Edinburgh, where I remained for eight years. I then went to live in Denmark for three and a half years, before moving to New Zealand, where I have now lived for 16 years. My wife is a New Zealander, as are our two children. My basic accent remains north of England, much modified towards a standard, but with influences of Scotland and New Zealand audible.

I discovered this extra phoneme in my speech by reading lists of homophones given by Carney (1994: 401-7). One of his pairs of homophones is *told* and *tolled*, and to my surprise I discovered that I did not pronounce these the same way. 'To my surprise' because I have been reading and writing transcription for many years, have always considered these two words to have the same phonemic structure, would take them to be good rhymes, and have even found myself making puns on these two words. I thus appear to have a phonemic distinction of which I was completely unaware. Moreover, having become aware that there is a distinction there, I was still not able, for a long time, to tell which phoneme occurred in which words. Within a psychological theory of the phoneme such as those proposed by Baudouin de Courtnay or Sapir, it is clear that these distinct vowels would not be regarded as different phonemes in my speech.

My first step was to attempt to characterise the two vowels in terms of their formant structure. Ten tokens of each of *told* and *tolled* and other words

containing the GOAT vowel both before /l/ and in other environments were recorded in carrier sentences using the SoundScope software on a Macintosh LCIII. The carrier sentences were chosen so that the word under consideration would be in stressed but not tonic position: *He said he told the story* and *He said he tolled the bell* respectively, with a high head beginning on *said* in each case and the nucleus on *story* and *bell*. Similar sentences were used to embed other words which were considered. In each token, the onset of the diphthong was marked and its end, and five formant readings were taken (using SoundScope's LPC facility) at equal steps between these two points.¹ The first point noted showed clear influence of the preceding consonant, and is not significant; the last shows some of the structure of the /l/ in words like *told* and *tolled*. The middle three show the general trend of the diphthong. The diphthongs in the two words are indistinguishable from each other on this measure.

Next I considered the length of the diphthong + /l/ sequence in the two words. Although there was a fair amount of overlap in the lengths, nevertheless the length of the diphthong + /l/ in *tolled* was significantly greater than that for *told* ($p < 0.05$ using a one-tailed t-test).

Finally I considered the quality of the /l/ in the two words: Where the two words were spoken in isolation adjacent to each other, the /l/ in *tolled* was noticeably darker than that in *told*. Using the formant structure of the /l/ derived from SoundScope and applying a simple sign test, this was easily shown to be significant ($p < 0.05$). But the fact that a

significant difference can be documented here gives a new interpretation to the phenomenon. It appears that the distinction is not so much in the quality of the diphthong (though that is affected) but in the resonance (Kelly & Local 1989) of the whole syllable. The distinction is carried as much in the /l/ as in the diphthong, and it is the quality of the /l/ which makes the distinction most easily perceptible to me. Rather than saying there are two distinct vowel phonemes here, we might just as well say that there are two distinct /l/ phonemes here - though of course they would be just as marginal within the system of English as the vowels would be.

Various phenomena have been described in the literature which appear to be similar to the distribution I am describing here. In New Zealand English there is a marked difference in the phonetic qualities of the vowel in *code* and *cold*, though given the degree of /l/-vocalisation in New Zealand it might be better to say that /lʌʊ/ in *code* and /oʊ/ in *cold* are separate phonemes. But the element found in *cold* is found everywhere there is an underlying /l/, and so is not the same distinction as the one in my own speech. Harris (1994: 29) (following Wells 1982) talks of the *molar* /*roller* distinction in London English. In his data, there are two allophones of the GOAT vowel, one which occurs before /l/ followed by a #-boundary and the other of which occurs elsewhere. *Molar* and *roller* contain different variants because of the presence of the boundary in *roller*. My distinction is different from this one in that *molar* and *roller* are good rhymes, and that *toll* and *tolled* have different nuclei. Yet the presence of the #-boundary does seem to play a part in my *told* vs *tolled* distinction.

The lengthening of vowels before #d# is reminiscent of a process in other varieties of English which is usually

¹ I should like to thank Anita Easton for allowing me to use the application she had developed within SoundScope as part of her work towards an MA thesis.

described under the title of Aitken's Law. Aitken's Law, which applies to Scottish dialects of English, lengthens vowels before [v, ð, z, r] or a #-boundary. In my non-rhotic variety, [r] is not a relevant environment and [v, ð] do not appear to have any lengthening effect (*grebe* and *grieve*, *breed* and *breathe*, for example, having similarly long vowels). The effect of [z] is less clear in my variety, but the effect of a #-boundary is interesting, since I, like the Scots, make a difference between *brood* and *brewed*. If we extend this to *told* and *tolled*, it is arguable that precisely the same thing is happening. The case is not absolutely straightforward, because of the morphological structure of *told*, where the /d/ is presumably at least part of the marker of the past tense or past participle. However, most authorities seem to agree in seeing irregular morphology of this type being either lexical or introduced at Level I in a level-ordered model, so that there would be no #-boundary in *told*. Where my variety differs from those varieties in which Aitken's Law has applied is that while Aitken's Law would predict the same nucleus in *toll* and *tolled* with a different one in *told*, I get the same variant in *told* and *toll*, and a different one in *tolled*. More accurately, I seem to get free variation between the two variants in *toll*, with the variant occurring in *told* the more common one. That is, while Aitken's Law is triggered by any #-boundary, the version in my speech is triggered by a single #-boundary, but not by a double ##-boundary. Even that is an oversimplification, since it has already been stated that *roller* and *molar* are a good rhyme for me, despite the #-boundary in *roller*. Rather it seems that my distinction is triggered by the sequence #C within the domain of the word. So *Rolls(-Royce)* and *rolls (a ball)* are different, but *roll* and *roller* are not.

At this point, there are two possibilities: either I have started to acquire Aitken's Law and have not acquired it fully, or this is a completely new rule. Pairs which I appear to keep apart (at least sporadically) by this rule include the following: *bald, bawled; band, banned; bruise, brews; choose, chews; Claude, clawed; clause, claws; find, fined; forth/Forth, fourth; furze, furs; grade, greyed; praise, prays/preys; road, rowed; seize, sees/seas; tide, tied*; Clearly, there is not just one marginal phoneme here; either there is a whole series, or we have to accept grammatical conditioning of allophones and none of these distinctions is phonemic. Such a conclusion might be strengthened by the sporadicness mentioned above. Several informants have independently suggested that it is possible to lengthen the short member of the pair under appropriate intonational conditions, but never to shorten the long member. The distinction, can, therefore, be masked even for speakers who make it.

If this is an improperly acquired rule, that is of itself interesting, since there are not many such cases attested. However, I think it more likely that this is a different process. One thing which leads me to believe that this is a completely separate rule is that it is generalised into areas where Aitken's Law does not apply (eg in making a distinction between *bruise* and *brews*). Having discovered this distinction in my own speech, I have found other speakers of English who appear to have similar distinctions. Some of these, speakers of New Zealand English, also appear to have Aitken's Law operative in their speech. If the two processes apply either independently or together, this seems like good evidence for their separateness. It is not clear to me how widespread this rule is: that remains a matter for further research.

Accordingly, I should like to postulate a new rule which I shall immodestly entitle Bauer's Law. In terms of distinctive features, this can be written

[+ syllabic] →

[+ long] / _ ([+ sonorant])#[- syllabic]

However, such a rule fails to capture the fact that where the sonorant is /l/, the /l/ (or perhaps better, the syllable) takes on a darker resonance as a result of the rule. This rule has effects which are similar to those of parts of Aitken's Law, and also reflects some distinctions between [æ] and [æ:] to which I referred at the beginning of this paper. Nevertheless, it appears to be a separate process, worthy of its own recognition.

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