

## The MEAT-MATE 'merger' in Mid-Ulster English revisited

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## The MEAT-MATE 'merger'

- The apparent merger of ME /ɛ:/ (MEAT) and /a:/ (MATE)
  - in Early Modern English
  - in traditional English dialects, e.g. varieties of Irish English
  - by *Jaysus, tay, Juno and the Paycock*
- With subsequent 'reversal of merger', without hypercorrection
  - which is meant to be essentially impossible (Labov 1994)
  - are/were the two vowels actually merged or were they in a situation of near merger?

## The MEAT-MATE 'merger' in Mid-Ulster English

- MATE (= FACE)
  - /e/, with two well known allophones, [ɪə] (default) and [e:] (in morpheme final position); *daze ≠ days* (Wells 1982: 440-1)
  - [e:] in morpheme final position has even been interpreted as an allophone of an entirely different phoneme, /ɛ/ (ibid.)
  - third allophone before palato-alveolars and velars, [eː]/[ɪː] (*bake, nation*)
- MEAT
  - with /i/: non-traditional, standard, now general
  - with an /e/-type vowel, seemingly the same as MATE
  - '/e/' in MEAT is traditional, non-standard, now stigmatised and deeply buried in the vernacular

## The apparent reversal of the MEAT-MATE merger in MUE

|                  | MEET | MEAT    | MATE |
|------------------|------|---------|------|
| ME               | e:   | ɛ:      | a:   |
| Traditional MUE  | i    | 'e'     | e    |
| Transitional MUE | i    | 'e' ~ i | e    |
| Standard MUE     | i    | i       | e    |

## Milroy and Harris (1980), Harris (1985)

- Auditory analysis of MEAT and MATE in conversational Belfast Vernacular English (BVE)
  - were the two sets in a state of merger or near merger?
- MATE-like pronunciations of MEAT are very deeply buried in the most informal vernacular
  - in read speech, speakers invariably produce /i/ in MEAT
- When asked to produce their 'broad' MEAT pronunciations, speakers found this to be an artificial exercise, and M&H (1980: 202) did not trust the results, which appeared to show merger
  - cf. Labov (1994: 359) "Speakers who make a consistent difference in spontaneous speech often reduce this difference in more monitored styles."

## M&H's analysis

- MATE and /e/-type MEAT only; /i/-MEAT excluded
- Informants and group scores
  - data from 8 male speakers, data analysed at the group level
  - 60 '/e/' MEAT tokens (about 1 per hour!), 99 MATE tokens
  - i.e. only 7.5 '/e/' MEAT tokens per speaker on average
- Auditory analysis
  - data quality poor (multiple speakers, background noise, etc.)
  - determining nucleus height and presence/absence of off-glide
  - environments: -t, -l, -n, -g and following voiced fricatives
  - i.e. no analysis of how the allophonic conditioning interacts with the 'merger'

## M&H's results

| Height | Vowel | MATE |      | MEAT  |          |
|--------|-------|------|------|-------|----------|
|        |       | MATE | MEAT | Glide | No glide |
| 1      | ɪə    | 33   | 0    | 0     | 0        |
| 2      | e, eə | 60   | 20   | 18    | 2        |
| 3      | ɛ, eə | 6    | 38   | 0     | 2        |
| 4      | ɛ     | 0    | 2    | 91    | 8        |

- MEAT significantly lower than MATE; typically [ɛ], [eə] or [e]
- MATE is significantly more likely to have a centring off-glide than MEAT; typically [ɪə] or [eə], sometimes [e]
  - partly because off-glides are more common with higher nuclei

## M&H's conclusions

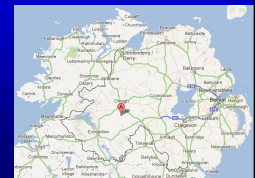
- The two sets are not the same, they are in a situation of near merger (see Labov 1994: 349-370)
  - “they *overlap* to a certain extent. It is not simply that they approximate closely in phonetic space: realizations of them are sometimes the same.” (M&H, p. 206)
  - this variable identity means that they can easily be rhymed and spell the same
- This explains how the apparent MEAT-MATE ‘merger’ in MUE has been reversed
  - it never was a merger in the first place; rather, it was a near merger
  - M&H (and Labov) suggest that the same kind of situation must have pertained in Early Modern Standard English

## Questions

- Are 60 MEAT tokens (av. 7.5 per speaker) enough to say anything valid (especially given the different environments)?
- Since merger/distinction is really a property of individual phonologies, are group scores meaningful?
- Is an auditory analysis of poor quality recordings sufficient for identifying a near merger? How accurate can it be?
- How does the near merger interact with the significant allophonic variation (e.g. TEA-DAY and BEAK-BAKE)?
- Is it the case that this feature can't be assessed using formal elicitation techniques?

## New data needed

- Given these questions, it is desirable to have:
  - more data per speaker
  - good quality data for acoustic analysis
  - more detailed consideration of phonological conditioning, including duration
  - targeted elicitation and speaker judgements?
- We need a variety where the apparent MEAT-MATE merger is still relatively common
  - it just so happens I know exactly such a variety...
  - Tyrone English (Fintona area)
  - TyrE







## Examples

- KF (F, 1919): *Mind you, life wasn't too easy, but it was all right. I said - life was a happy one but it was a hard one.*
- WB (M, 1975): *And I left it and I was clean beat, so I done it in his class.*
- RM (M, 1943): *Then they're took in, showed in a seat into the room if there's - sometimes there doesn't be standing room. You'd be sitting every-road, you know, and even on a good night in some houses there if they weren't too big a house(s) they'd be sitting outside. And everybody gets tea and a sandwich and maybe biscuits and stuff passed round and if it's a Catholic wake they normally pass round cigarettes and sometimes bottles of stout. And, uh, then, uh, whenever, before you leave you're took in always to see the dead person, you see.*

## My intuitions

- I am a native speaker of TyrE, with variation between /i/ and /e/ in MEAT
- I *think* there might be a distinction before voiceless fricatives and /k/ at least (environments not tested by M&H)
  - consisting of a minor durational difference, with more diphthongisation in longer phones when not before /k/
  - *peace* ≠ *pace*, *sheaf* ≠ *safe*, *beak* ≠ *bake*
  - I can't detect any definite difference before morpheme boundaries nor before other consonants: *tea* = *Tay*, *beat* = *bait*
- Labov (1994: 359) on near merger:
  - “Phoneticians from other areas are better able to hear the difference than the native speakers.”

## Minimal pair tests

- Minimal pair and rhyme tests were conducted with two speakers, RM (M, lots of 'eɪ' in MEAT in everyday conversation) and JK (F, almost no 'eɪ' in MEAT)
- Both speakers were well aware of the possible broad pronunciations of MEAT and were asked to compare these to their pronunciations of MATE
- Neither speaker felt there were any differences between MEAT and MATE in a range of environments
  - JK: *beak-bake*  *peace-pace* 
  - RM: *beat-bait*  *reason-raisin* 

## The TyrE corpus

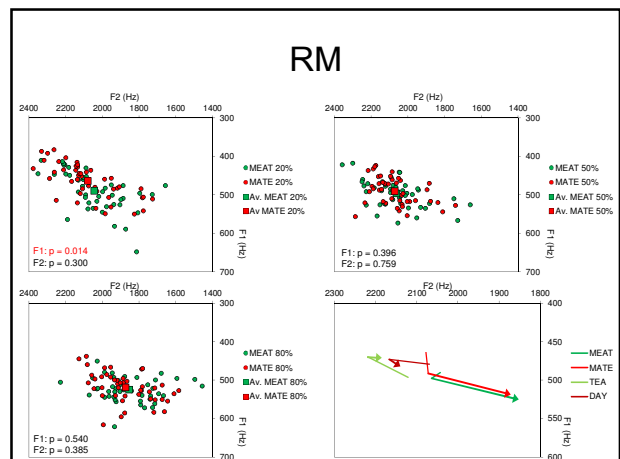
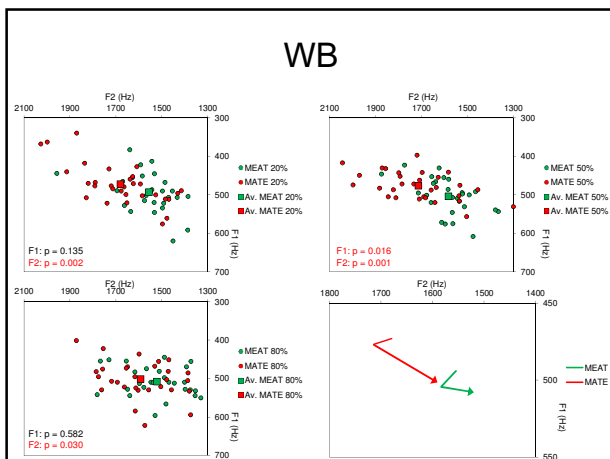
- Ongoing collection of corpus of local speech
  - Interviews with 11 speakers from countryside around Fintona (each 40 mins +)
  - 4 female, 7 male; all but one born 1954 or earlier
  - 10 Protestant, 1 Catholic; all rural working-class
  - Supplemented by a small collection of recordings of older members of the community (mostly now dead) made in the late 1980s
- Lots of data for MATE-like pronunciations of MEAT, but still not as much as I'd like
  - 200 'eɪ' tokens of MEAT in total

## Initial analysis of MEAT

| Speaker                   | /e/-type   | /i/ |
|---------------------------|------------|-----|
| JK (F, 1950)              | 1 (5.3%)   | 18  |
| EB (F, 1949)              | 1 (4.3%)   | 22  |
| MM (F, 1940)              | 8 (9.6%)   | 75  |
| KF (F, 1919)              | 4 (33.3%)  | 8   |
| WB (M, 1975)              | 37 (84.1%) | 7   |
| JW (M, 1954)              | 0 (0.0%)   | 2   |
| VM (M, 1945)              | 15 (25.9%) | 43  |
| RM (M, 1943)              | 68 (73.9%) | 24  |
| SC (M, 1939, Cath.)       | 21 (75.0%) | 7   |
| DE (M, 1938)              | 15 (60.0%) | 10  |
| KM (M, 1926)              | 13 (86.7%) | 2   |
| RK, RG, SM (M, 1900-1925) | 17 (85.0%) | 3   |

## WB and RM

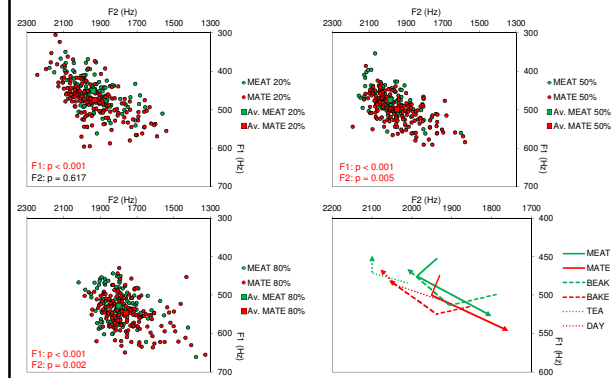
- WB: M, b. 1975, farmer
  - 1 -# token, with /i/
  - 1 -tʃ and 3 -k tokens, all with 'eɪ'
  - 39 other MEAT tokens, 33 with 'eɪ', 6 with /i/
- RM: M, b. 1943, farmer
  - 23 -# tokens, 14 with 'eɪ' (all *tea*), 9 with /i/ (*peacock* and *sea*)
  - 2 -tʃ tokens with /i/, 1 -k token with /i/, 2 -k tokens with 'eɪ'
  - 64 other MEAT tokens, 12 with /i/, 52 with 'eɪ'
- F1 and F2 at 20%, 50% and 80% compared with similar samples of MATE; duration not analysed



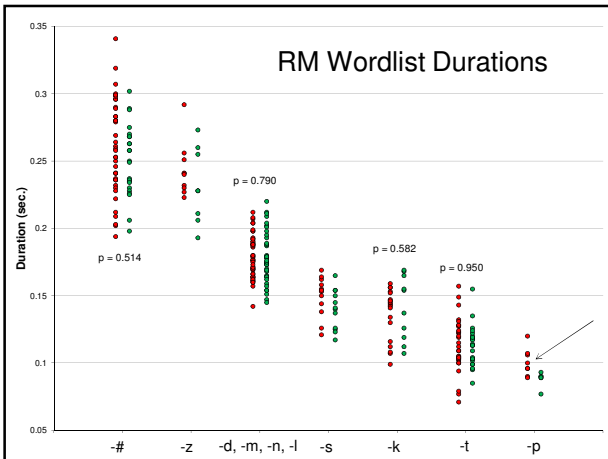
## Wordlist task

- Both RM and JK were asked to read wordlists including many MEAT and MATE words
  - In order to get the 'eɪ' pronunciations of MEAT, they were asked to provide their 'broad', 'local' pronunciations of these words
    - since otherwise only /i/ would be given for MEAT
    - broad pronunciations of MATE also asked for, but they didn't recognise these as being different from normal pronunciations
  - RM found this task very straight-forward ('eɪ' in MEAT being very natural for him)
  - JK found the task more artificial, but was well aware of what was required and showed no instances of hyper-dialect 'eɪ' in MEAT words (included as distractors) – though she did reject 'eɪ' in quite a few MEAT words (hence fewer tokens)
  - F1, F2 (at 20%, 50% and 80% points) and duration were measured for each token

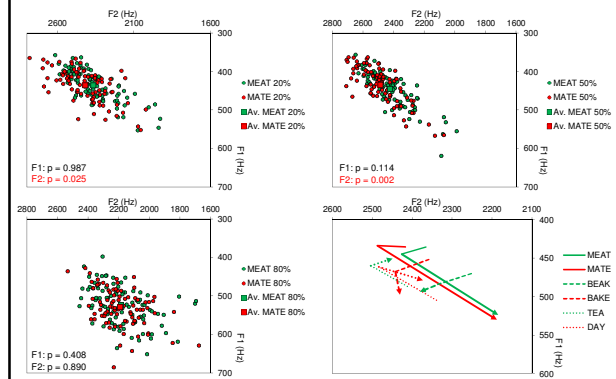
## RM Wordlist



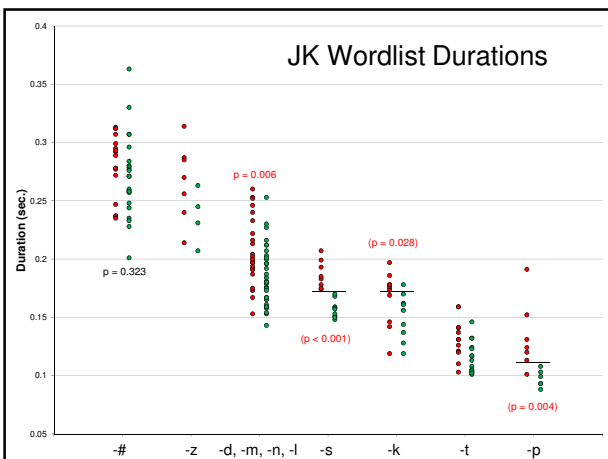
## RM Wordlist Durations



## JK Wordlist



## JK Wordlist Durations



## Conclusions

- MEAT and MATE are distinct in TyrE too (more so for some speakers than others)
- M&H appear to have got it right, but I'm not sure how if the situation in BVE is/was the same as that in TyrE!
- The distinction is *extremely* subtle; MEAT and MATE:
  - are qualitatively almost identical
  - show the same kind of allophonic patterning
  - show similar durational variation, with minor differences
  - it is not possible to identify the category of any vowel phone in isolation
  - and broad symbols such as [ɪe] and [e] don't capture what's really going on

## Conclusions

- Attempting to analyse this feature reveals the strengths and weaknesses of using corpora of audio recordings
  - a minimal distinction which native speakers can't perceive can be identified
  - but the feature is so uncommon, complex and deeply buried in the vernacular that it is very difficult to get enough data
- It appears to be possible to investigate the MEAT and MATE 'merger' using formal elicitation
  - even when speakers don't produce many /e/ tokens of MEAT
  - and in this case, at least, the near-merger doesn't disappear under such circumstances, even if speakers don't recognise the difference between the sets in minimal pair and rhyme tests

## Questions for the future

- The fact that there is near merger (and reversal of merger) for three rather different allophones is surprising
  - MEAT-MATE, BEAK-BAKE, TEA-TAY
  - three near mergers?!
  - plus the same kind of length conditioning for both sets
- How is this possible?
- Why does RM have more of a distinction in the elicitation data, and in the opposite direction?

## References

- Harris, John. 1985. *Phonological Variation and Change*. Cambridge: CUP.
- Labov, William. 1994. *Principles of Linguistic Change, Vol. 1, Internal Factors*. Oxford: Blackwell.
- Milroy, J. and John Harris. 1980. When is a merger not a merger? The MEAT/MATE problem in a present-day English vernacular. *English World-Wide* 1: 199-210.
- Wells, John. 1982. *Accents of English* (3 volumes). Cambridge University Press.