Is there gender variation in pre-aspiration in Aberystwyth English?

An apparent-time study

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DEFINING PRE-ASPIRATION
OVERVIEW

- pre-aspiration & gender
- pre-aspiration in apparent-time (previous work)
- gender and sound change

- questions & hypotheses
- methodology
- results
  - vocalic & consonantal conditioning
  - age differences
  - gender differences

- discussion
**Gender Variation**

- **females pre-aspirate more frequently**
  

- **females pre-aspirate with longer durations**
  

- **physiological motivations?**
- **no gender differences in Sienese Italian**

  (Stevens 2010; Stevens & Hajek 2004)
PRE-ASPIRATION AND APPARENT TIME

- **Newcastle English**: young adult females pre-aspirate most frequently (Foulkes & Docherty 1999: 66)
- Children – data suggests attenuated gender differences → change in progress led by females

- **Arjeplog Swedish**: older generations longer durations of pre-aspiration for one of the two words examined (Helgason, Stölten & Engstrand 2003)

- **Lewis Gaelic**: pre-aspiration shorter and less noisy for the younger generation (Nance & Stuart-Smith 2013: 147) → regressive sound change


**Gender and Change**

- **pre-aspiration** – below level of awareness
  - speakers unaware of doing this and never comment on it

- ‘[i]n linguistic change from below, women use higher frequencies of innovative forms than men do’ *(Labov 2001: 292).*

- **female dominated changes - faster transmission** *(Labov 2010: 254)*
  - ‘[g]ender differentiation does not continue indefinitely. On the contrary, the difference between males and females disappears as the change continues’ *(2010: 255).*
QUESTIONS

- Is pre-aspiration an advancing or a regressing sound change in Aberystwyth English, or neither?

- Is pre-aspiration conditioned physiologically?

  - If pre-aspiration is conditioned physiologically, a gender difference will be observed in both generations.

  - If it is not and it is advancing, at least the young generation will show no gender differences.
**Methodology: Respondents**

- Young generation: 3 males, 3 females (24-32yrs)
- Older generation: 2 males, 2 females (70-79yrs)

- L1 Welsh speakers born & raised in Aberystwyth
- Parents also L1 Welsh speakers
- Females: most often both parents from Ceredigion or Aber
- Males: at least one parent from Ceredigion or Aber
**Methodology: Material**

- /æ/ and /ɪ/ combined with /p/, /t/, and /k/
- monosyllables & disyllables
- *cap, cat, cack; kip, kit, kick*
- *capper, catty, cacky; kipper, kitty, kicker*

- 2x in a carrier sentence *Say ___ once.*
- 1x in isolation

- each respondent 244-250 tokens

- uncertain glottal gestures excluded
- ABE37(28yrs) excluded → monosyllabic glottaliser with glottalisation blocking pre-aspiration
Vocalic conditioning: females

- Kruskal-Wallis & Chi-Square, $p < 0.001$
- high vowel shorter pre-aspiration in both generations
- high vowel fewer pre-aspirations in both generations
**Vocalic conditioning: males**

- **Kruskal-Wallis & Chi-Square, p < 0.001**

- high vowel shorter pre-aspiration in both generations

- high vowel fewer pre-aspirations in both generations
  - disyllables only for young males
Consonantal conditioning: females

- **Kruskal-Wallis & Chi-Square, \( p < 0.01 \)**

- /p/ - shortest durations in both generations
- /p/ - the least frequently pre-aspiration in both generations
**Consonantal Conditioning: Males**

- **Kruskal-Wallis & Chi-Square, p < 0.001**

- */p/* - shortest durations in both generations
- */p/* - the least frequently pre-aspiration in both generations
AGE DIFFERENCES: FEMALES

- **Kruskal-Wallis & Chi-Square**

- no age differences in duration ($p = 0.05155$)

- young females pre-aspirate more often ($p < 0.001$)
AGE DIFFERENCES: MALES

- **Kruskal-Wallis & Chi-Square, p < 0.05**
- young males longer pre-aspiration
- young males pre-aspirate more often
Gender differences: older generation

- Kruskal-Wallis & Chi-Square
- Females longer durations of pre-aspiration (p < 0.01)
- Females pre-aspirate more often (p < 0.001)

Physiological conditioning plausible
Gender Differences: Young Generation

- Kruskal-Wallis & Chi-Square

- No differences in duration of pre-aspiration (p = 0.26-0.46)
- Males pre-aspirate slightly less often (p < 0.01)
DISCUSSION:

- *Is pre-aspiration undergoing a sound change?*
  - Yes.

- *What sort of sound change?*
  - An advancing sound change (longer duration, more frequent)

- *Is pre-aspiration conditioned physiologically?*
  - plausible for the older generation
  - but not really for the young generation
  - a physiological difference could be present at first
  - but overridden in time
FURTHER RESEARCH: HOW DOES PRE-ASPIRATION INNOVATE?

- Pre-aspiration often originates in a process of degemination (Clayton 2010): 
  \([kæt_1] \rightarrow [kæh_1] \rightarrow [kæ_1]\)

- both pre-aspiration and consonantal lengthening features of Aberystwyth English (and Welsh English)

- consonantal lengthening above the level of awareness?
- pre-aspiration below the level of awareness

- aerodynamics of degemination resulting in pre-aspiration?

- a different scenario: loss of phonetic voicing > development of pre-aspiration (Ní Chasaide 1985)

- Aberystwyth English: word-initial pre-aspiration, but no word-initial consonantal lengthening
BIBLIOGRAPHY


Breathiness and Pre-Aspiration

- often taken together
- breathiness on its own - cue to a fortis plosive

But...

- different conditioning of the two
  (Ní Chasaide 1985: 134; Irish, Scottish Gaelic, and Icelandic data; vowel length, position, language; Dommelen et al 2011: 602)

- in apparent time changes, different behaviour
  (Nance & Stuart-Smith 2013: 16)
Breathiness and Pre-aspiration

- young females longer breathiness than older females (Kruskal-Wallis, p < 0.05)
- no differences in age in the male data
- no gender differences in the duration of breathiness in either generation