Defining pre-aspiration

Narrow sense of the term used here: a period of voiceless friction following a vowel and preceding a voiceless plosive:

![Figure 1: segmentation procedure showing the voiceless pre-aspiration and the voiced breathy transition within a VP sequence (P = plosive).](image)

Defining sonorant devoicing

Corresponds to pre-aspiration: a period of voiceless friction following a consonantal sonorant and preceding a voiceless plosive:

![Figure 2: segmentation procedure showing the voiceless pre-aspiration and the voiced breathy transition within a VNP sequence (R = consonantal sonorant, P = plosive).](image)

Pre-aspiration and sonorant devoicing in Welsh English

**PATTERN 1**
- pre-aspiration most frequent – VP (& V/r/ >) V/I/ > VN (p < 0.05-0.0001)
- 15 speakers
- sonorant devoicing implies pre-aspiration

![Figure 3 (left): pre-aspiration frequency strictly conditioned by the sonority hierarchy (1 speaker representative of 15).](image)

**PATTERN 2**
- pre-aspiration most frequent – V/I/ > VP > VN (p < 0.01-0.0001)
- 8 speakers

**PATTERN 3**
- VP > VN > V/I/
- 2 speakers

**PATTERN 4**
- 100% application across all sonority contexts
- 3 speakers

Other conditioning

- pre-aspiration in VP sequences (litter)
  - less frequent with high vowels (latter > letter > litter) (p < 0.0001)
  - less frequent with long vowels (latten vs tartan) (p < 0.0001)
  - less frequent with anterior plosive (/p/ < /t, k/) (p < 0.0001)
  - females pre-aspirate more frequently (p < 0.0001)

- pre-aspiration in V/I/P sequences (Milton)
  - less frequent with anterior plosive (/p/ < /k/ < /t/) (p < 0.0001-0.001)

- pre-aspiration in VNP sequences (linter)
  - no conditioning found

Data

**Wordlist data**
- foot-medial fortis plosives (P)
  - /p/, /t/, /k/

- preceded by vocalic sonorants
  - /l/ e.g. litter
  - /a/ e.g. letter
  - /e/ e.g. otter
  - /a/ e.g. party

- as well as consonantal sonorants
  - /n, m, n/ e.g. linter, haunter
  - /r/ e.g. party
  - /l/ e.g. Hilton

- V+P (plosive) = 511 tokens
- V+N (nasal) = 437 tokens
- V+/l/ = 473 tokens
- V+/r/ = 15 tokens

Speakers

- 28 speakers of Welsh English
- also L1 Welsh speakers
- South Wales, mid-Wales, North Wales

Typological perspective?

Languages reported to have sonorant devoicing also tend to have pre-aspiration: Southern Icelandic, Tórshavn Faroese, Scottish Gaelic, Saami languages [8: 17; 10; 11], Siene Italian [9]

Sonorant devoicing implies pre-aspiration in Welsh English

\[ T_r \ [VW] \text{ litter } > T_r \ [VW]  \text{ linter} \]

**QUESTION:** Does sonorant devoicing/consonantal sonorant pre-aspiration occur after vocalic sonorant pre-aspiration develops in the languages mentioned?

Possible problem:
- Siene Italian [9]
- VT (48%); /l/ (85%)

\[ \text{but} \]
- 60 tokens for 6 speakers in total

References