**Supplemental File 3:** Mismatches affecting voiceless nasals and liquids.

|  |  |  |  |
| --- | --- | --- | --- |
|   | **Age** | **[+sg] mismatch** | **[+sg] match: other mismatches** |
|  | (yr) | **C Deletion** | **[+spread glottis] > [-spread glottis]** | **Metathesis** | **Stop deletion** | **Manner** | **Place** | **Manner plus Place** |
|  |  | (of +sg C) | Stop Gem. | [+vd] | [-sg]&Othera |   |  | [l̥], [θ]b | of stop | [h] only | Pre-asp. stop | [s, f, ç] |
| [-vd] nasals | 2 |  - |  - | **85.7%** |  - |  - |   |  - |  - |  - |  - |  - |
|  Word-initial | 3 |  - |  - | **73.1%** |  - |  - |   |  - |  - |  - |  - |  - |
|  | 4 |  - |  - | **59.7%** |  - |  - |   |  - |  - |  - |  - |  - |
|  | 5 |  - |  - | **61.5%** |  - |  - |   |  - |  - |  - |  - |  - |
|  | 6 |  - |  - | **39.7%** |  - |  - |   |  - |  - |  - |  - |  - |
|  | 7 |  - |  - | **34.8%** |  - |  - |   |  - |  - |  - |  - |  - |
| [-vd] liquids | 2 | 1.6% |  - | 6.3% |   |  - |   | **20.3%** |  - | **12.5%** |  - | 7.8% |
|  Word-initialc | 3 | 0.4% |  | 3.1% | 5.7% (M & sg) |  - |   | **15.7%** |  - | 3.9% |  - | 3.9% |
|  | 4 |  - |  - | 0.9% |  - |  - |   | 7.5% |  - | 0.9% |  - | 8.4% |
|  | 5 |  - |  - |  - |  - |  - |   | 3.8% |  - | 1.1% |  - | 2.2% |
|  | 6 |  - |  - |  - |  - |  - |   | 3.1% |  - |  - |  - |  - |
| [-vd] sonorants | 2 | 1.1% | **9.7%** | 2.2% |  - |  - |  - | 3.8% | 1.6% |  - | **36.0%** |  - |
|  Word-medial | 3 |  - | 3.8% | 0.3% | 0.1% (M&P&sg) |  - |  - | 3.9% | 0.9% |  - | **24.0%** |  - |
|  C1 of CC | 4 |  - | 1.1% | 0.8% |  - |  - |  - | 4.0% |  - |  - | 3.4% |  - |
|  with stop | 5 |  - | 0.6% |  - |  - |  - |  - | 1.3% |  - |  - | 1.3% |  - |
|  (includes nasals) | 6 |  - |  - |  - |  - |  - |  - | 1.7% |  - |  - |  |  - |
|  | 7 |  - |  - |  - |  - |  - |  - | 07% |  - |  - | 0.4% |  - |
| [-vd] liquids | 2 | **15.3%** |  - |  - | 0.3% (M&P&sg) |  - |  | **17.1%** |  - | 1.5% |  - |  - |
|  Word-final | 3 | 4.5% |  - |  - | 0.3% (M&P&sg) |  - |   | **18.8%** |  - | 0.4% |  - |  - |
|  singletons | 4 | 0.8% |  - |  - | 0.3% (M&P&sg) |  - |   | **10.2%** |  - | 0.1% |  - |  - |
|  | 5 | 1.3% |  - |  - | 0.3% (M&P&sg) |  - |   | 4.6% |  - |  - |  - |  - |
|  | 6 | 0,2% |  - |  - |  - |  - |   | 4,0% |  - |  - |  - |  - |
| [-vd] liquids | 2 | **11.1%** | **13.9%** |  - |  - | 5.5% | **11.1%** | **19.4%b** | **38.8%c** | 5.5% | **30.6%** |  - |
|  Word-final | 3 | 0.7% | 5.5% |  - | 1.4% | 11.0% |  - | **12.4%b** | **21.3%** |  - | **31.7%** | 4.1% |
|  r̥p (útvarp) | 4 |  - | 1.60% |  - |  - | 2.3% |  - | **13.3%b** | **17.2%** |  - | 6.3% |  - |
|  | 5 | 2.0% |  - |  - | 4.1% | 13.3% |  - | 6.1% | 9.1% |  - | 3.1% | 1.0% |
|  | 6 |  - |  - |  - |  - |  - |  - | 5.5% |  - |  - |  - |  - |
|  | 7 |  - |  - |  - |  - |  - |  - |  - |  - |  - |  - |  - |
| [-vd] liquids | 2 | 4.9% | 1.6% |  - |  - |  - |   |  - | 16.4% |  - |  - |  - |
|  Word-final | 3 | 1.7% | 2.2% |  - |  - |  - |  | 0.5%b | 23.5% |  - |  - |  - |
|  kl̥ tl̥ | 4 |  - | 0.5% |  - |  - |  - |  | 0.5% | 12.6% |  - |  - |  - |
|  | 5 | 1.6% | 1.1% |  - |  - |  - |  | 1.0%b | 10.4% |  - |  - |  - |
|  | 6 |  - |  - |  - |  - |  - |  |  - | 2.7% |  - |  - |  - |
|  | 7 |  - |  - |  - |  - |  - |  |  - | 4.4% |  - |  - |  - |

Note. Data reported where one age group registered 5+% mismatches for any target. Gem = gemination; vd = voiced; M(an) = Manner; P = Place; asp. = aspirated.

a For [-vd] sonorants, the [-sg] substitutions were primarily unaspirated stops but could be glides. Some clusters were produced, primarily through metathesis.

b [-grooved] [θ] was a frequent substitution for the voiceless |r̥| (over 80% of word-initial manner only replacements and all but 1 of the replacements for *útvarp*)

c The word-final [p] sometimes appeared in place of the |v| as an ambiguous metathesis, but metathesis was counted only if the |v| remained.

There were many productions of [t] for the word-final [p], about 75% of which co-occurred with other mismatches for the cluster.