Appendix 1. Acoustic correlates of coda fricative noise by gender. Means, standard deviation and statistical significance. It should be noted that the spectral peak does not differentiate the two allophones in men.

|  |  |  |  |
| --- | --- | --- | --- |
| Coda fricative noise [**s**.t, **h**.t] | | | |
| Men | | | |
|  | [s.t] | [h.t] | Wilcoxon |
| *n* | 410 | 48 |  |
| CFT | 0.07 ± 0.03 | 0.04 ± 0.01 | 5113.5 Sig.  < 0.001 |
| CoG | 4900 ± 1512 | 1288 ± 713 | 641 Sig.  < 0.001 |
| Peak | 5092 ± 2296 | 5402 ± 3070 | 9012.5 Sig.  < 0.334 |
| ZCR | 55 ± 32 | 28 ± 19 | 4614.5 Sig.  < 0.001 |
| Women | | | |
|  | [s.t] | [h.t] |  |
| *n* | 409 | 27 |  |
| CFT | 0.07 ± 0.02 | 0.05 ± 0.02 | 2696.5 Sig.  < 0.001 |
| CoG | 6401 ± 1640 | 1044 ± 748 | 31 Sig.  < 0.001 |
| Peak | 7177 ± 2557 | 4102 ± 2078 | 1798.5 Sig.  < 0.001 |
| ZCR | 67 ± 39 | 22 ± 11 | 1398 Sig.  < 0.001 |

Appendix 2. Acoustic correlates of onset fricative noise in /-s.t/ variants by gender. Means, standard deviation and statistical significance.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Onset fricative noise [t, th, ts] | | | | | | |
| Men | | | | | | |
|  | [s.t] | [h.t] | [th] | [ts] | ∅ | Fisher-Pitman |
| *n* | 410 | 48 | 572 | 473 | 183 |
| VOT | 0.02 ± 0.01 | 0.03 ± 0.01 | 0.04 ± 0.01 | 0.05 ± 0.01 | 0.02 ± 0.01 | 712.21 (4) Sig. < 0.001 |
| CoG | 3918 ± 1526 | 3758 ± 1378 | 3881 ± 1219 | 4621 ± 1386 | 3261 ± 1095 | 148.92 (4) Sig. < 0.001 |
| Peak | 4805 ± 2281 | 4755 ± 2238 | 4652 ± 2195 | 5051 ± 2389 | 3892 ± 1575 | 36.05 (4) Sig. < 0.001 |
| ZCR | 43 ± 28 | 51 ± 25 | 45 ± 22 | 59 ± 25 | 32 ± 18 | 170.01 (4)  Sig. < 0.001 |
| Women | | | | | | |
|  | [s.t] | [h.t] | [th] | [ts] | ∅ | Fisher-Pitman |
| *n* | 409 | 27 | 1267 | 898 | 188 |
| VOT | 0.02 ± 0.01 | 0.02 ± 0.01 | 0.04 ± 0.01 | 0.05 ± 0.01 | 0.02 ± 0.01 | 803.29 (4) Sig. < 0.001 |
| CoG | 4342 ± 1599 | 3782 ± 1308 | 4094 ± 1317 | 5483 ± 1473 | 3655 ± 1195 | 282.95 (4) Sig. < 0.001 |
| Peak | 4970 ± 2567 | 4275 ± 2461 | 4486 ± 2287 | 5952 ± 2595 | 4029 ± 1995 | 119.48 (4) Sig. < 0.001 |
| ZCR | 46 ± 29 | 41 ± 18 | 47 ± 26 | 70 ± 28 | 37 ± 21 | 255.24 (4)  Sig. < 0.001 |

Appendix 3. Screenshot of some of the questions the participants found in the perception test

Figure A3.1. 'Sentence 1. Click on the icon and select the word you heard. Select one of the following options: Casto/Cacho/Cato'.

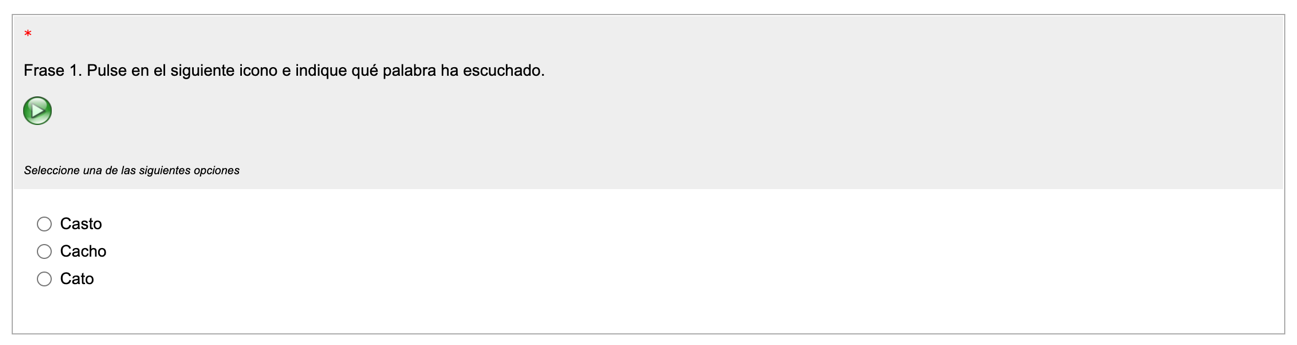


Figure A3.2. 'Sentence 2. Click on the icon and select the word you heard. Select one of the following options: Pasta/Pacha/Pata'.

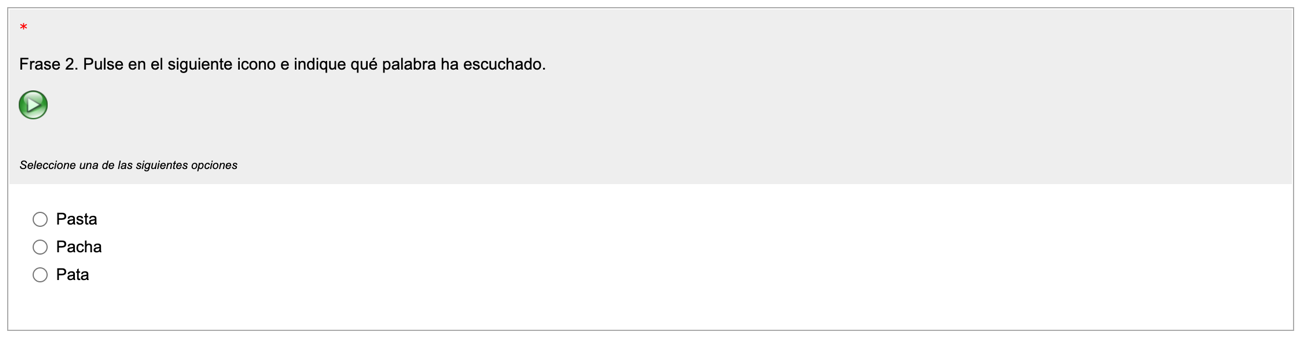


Figure A3.3. 'Sentence 8. Click on the icon and select the word you heard. Select one of the following options: Masta/Macha/Mata.

