## Supplementary Material A

F0 values at 4 points along the /taT1/-/taT4/ continuum. In the table, /taT1/= stimulus 1 and /taT4/=stimulus 8 . The intermediate numbers correspond to the stimuli created along the continua.

| Step | Starting Point | Interpolate 1 | Interpolate 2 | Ending Point |
| :---: | :---: | :---: | :---: | :---: |
| 1 | 278.795 | 276.670 | 274.525 | 272.390 |
| 2 | 293.044 | 284.788 | 259.178 | 255.264 |
| 3 | 307.293 | 292.906 | 243.829 | 238.136 |
| 4 | 321.542 | 301.024 | 228.480 | 221.008 |
| 5 | 335.791 | 309.142 | 213.131 | 203.880 |
| 6 | 350.040 | 317.260 | 197.782 | 186.752 |
| 7 | 364.289 | 325.378 | 182.433 | 169.624 |
| 8 | 378.537 | 333.494 | 167.084 | 152.496 |

## Supplementary Material B

As an additional control, the Pitch-Contour Perception Test (PCPT; [1,2]) was included in the post-training phase, to examine participants' pitch perceptual abilities. This test required indication of whether isolated tone tokens had a flat, rising or falling contour. The PCPT allows division of participants into high and low aptitude groups, to examine whether ability to perceive pitch affects identification and discrimination responses. No differences either in the identification or in the discrimination tasks were observed between listeners with high versus low aptitude in the present study.

1. Wong, P. C.; errachione, T. K. Learning pitch patterns in lexical identification by native English-speaking adults. Applied Psycholinguistics 2007, 28(4), 565-585.
2. Perrachione, T. K.; Lee, J.; Ha, L. Y.; Wong, P. C. Learning a novel phonological contrast depends on interactions between individual differences and training paradigm design. The Journal of the Acoustical Society of America 2011, 130(1), 461-472.

## Supplementary Material C

The table below represents the discrimination task results across all contrasts. Each grid represents the mean (SD) percentage of accuracy before ("Pre") and after ("Post") bimodal or unimodal exposure.

|  |  | Contrasts |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1-1 | 1-3 | 2-2 | 2-4 | 3-3 | 3-5 | 3-6 | 4-4 |
| Bimodal | Pre | 95.40\%(10.29\%) | 84.60\%(21.40\%) | 92.30\%(15.05\%) | 59.20\%(29.11\%) | 90.80\%(15.21\%) | 50.00\%(30.59\%) | 60.83\%(35.62\%) | 93.10\%(12.58\%) |
|  | Post | 97.70\%(06.52\%) | 90.00\%(23.49\%) | 96.20\%(09.83\%) | 61.50\%(36.63\%) | 93.80\%(12.35\%) | 46.20\%(34.30\%) | 67.50\%(33.26\%) | 93.80\%(13.59\%) |
| Unimodal | Pre | 91.50\%(22.03\%) | 87.70\%(20.46\%) | 90.00\%(17.20\%) | 50.00\%(31.11\%) | 89.20\%(18.09\%) | 41.50\%(29.35\%) | 51.67\%(30.59\%) | 86.90\%(23.28\%) |
|  | Post | 95.40\%(11.74\%) | 96.20\%(09.83\%) | 93.10\%(20.35\%) | 63.80\%(33.48\%) | 93.80\%(13.59\%) | 58.50\%(35.74\%) | 65.00\%(30.21\%) | 90.00\%(22.09\%) |


|  |  | Contrasts |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 4-6 | 5-5 | 5-7 | 6-6 | 6-8 | 7-7 | 8-8 |
| Bimodal | Pre | 48.50\%(38.02\%) | 96.20\%(09.83\%) | 50.80\%(32.61\%) | 91.50\%(15.15\%) | 37.70\%(34.56\%) | 95.40\%(14.21\%) | 94.60\%(09.05\%) |
|  | Post | 45.40\%(33.25\%) | 94.60\%(12.08\%) | 52.30\%(35.36\%) | 86.20\%(23.16\%) | 49.20\%(34.98\%) | 95.40\%(11.74\%) | 94.60\%(14.49\%) |
| Unimodal | Pre | 40.80\%(33.70\%) | 94.60\%(16.55\%) | 40.00\%(34.41\%) | 93.10\%(18.71\%) | 39.20\%(35.99\%) | 90.80\%(15.21\%) | 91.50\%(18.91\%) |
|  | Post | 43.80\%(33.48\%) | 91.50\%(18.04\%) | 50.00\%(36.33\%) | 89.20\%(22.08\%) | 43.80\%(31.51\%) | 89.20\%(23.48\%) | 92.30\%(21.22\%) |

## Supplementary Material D

The table below represents the identification task results across all steps. Each grid represents the mean (SD) proportion of choosing "falling" over "flat" before ("Pre") and after ("Post") bimodal or unimodal exposure

|  |  | Steps |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| Bimodal | Pre | 41.66\%(35.97\%) | 32.05\%(31.59\%) | 34.75\%(28.62\%) | 42.94\%(31.33\%) | 52.56\%(35.49\%) | 67.29\%(31.61\%) | 68.58\%(32.43\%) | 64.74\%(37.51\%) |
|  | Post | 44.87\%(38.80\%) | 26.92\%(31.29\%) | 25.08\%(33.30\%) | 42.30\%(34.06\%) | 54.48\%(39.03\%) | 65.87\%(35.28\%) | 68.58\%(36.61\%) | 64.74\%(36.91\%) |
| Unimodal | Pre | 40.38\%(35.95\%) | 26.92\%(24.97\%) | 45.83\%(28.30\%) | 55.12\%(33.58\%) | 57.05\%(34.37\%) | 74.29\%(29.79\%) | 70.51\%(32.76\%) | 78.20\%(28.97\%) |
|  | Post | 42.94\%(35.33\%) | 22.43\%(28.26\%) | 42.25\%(28.98\%) | 52.56\%(35.49\%) | 55.76\%(35.88\%) | 69.38\%(29.81\%) | 62.82\%(32.07\%) | 69.87\%(29.06\%) |

