

Table S1. Mean (Standard Deviation) and group comparison for parents' BMEQ scales.

| Mothers' BMEQ scores | | | | |
|--------------------------------------|-------------|-------------|--------|-------|
| | RTr+ | RTr- | t | p |
| Commitment to music | 1.96 (0.67) | 2.03 (0.39) | 0.267 | 0.792 |
| Innovative musical aptitude | 1.83 (0.80) | 1.78 (0.90) | -0.153 | 0.880 |
| Social uplift | 3.50 (0.65) | 3.16 (0.85) | -1.085 | 0.290 |
| Affective reactions | 4.09 (0.39) | 4.11 (0.49) | 0.095 | 0.925 |
| Positive psychotropic effects | 3.03 (0.59) | 2.98 (0.52) | -0.233 | 0.818 |
| Reactive musical behavior | 3.69 (0.68) | 3.57 (0.82) | -0.408 | 0.687 |
| Fathers' BMEQ scores | | | | |
| | RTr+ | RTr- | t | p |
| Commitment to music | 2.45 (0.73) | 2.09 (0.58) | -1.310 | 0.204 |
| Innovative musical aptitude | 2.09 (0.63) | 2.32 (1.02) | 0.654 | 0.520 |
| Social uplift | 2.83 (0.69) | 2.73 (0.59) | -0.394 | 0.697 |
| Affective reactions | 4.04 (0.39) | 4.18 (0.37) | 0.879 | 0.389 |
| Positive psychotropic effects | 3.11 (0.56) | 3.01 (0.73) | -0.365 | 0.719 |
| Reactive musical behavior | 3.40 (0.58) | 3.49 (0.84) | 0.324 | 0.749 |

Table S2. Mean (Standard Deviation) and group comparison for pre-training ERP indices considered in the study.

| | RTr+ | RTr- | t | p |
|--|--|-------------------------------------|--------|-------|
| | subsample with ERP data (N = 11) | sample with ERP data (N = 14) | | |
| N2* DEVD Left Amplitude | -1.20 (1.03) | -1.18 (1.94) | 0.020 | 0.985 |
| N2* DEVD Right Amplitude | -0.83 (2.04) | -0.38 (2.83) | 0.448 | 0.658 |
| N2* DEVD Left Latency | 345.21 (19.73) | 328.48 (21.03) | -2.029 | 0.054 |
| N2* DEVD Right Latency | 331.60 (26.21) | 329.37 (19.76) | -0.243 | 0.810 |
| MMR DEVF Left Mean Amplitude | 5.23 (2.59) | 3.02 (2.75) | -2.045 | 0.052 |
| MMR DEVF Right Mean Amplitude | 3.46 (3.81) | 3.94 (2.73) | 0.365 | 0.718 |
| MMR DEVD Left Mean Amplitude | 2.87 (2.50) | 3.51 (2.50) | 0.638 | 0.530 |
| MMR DVD Right Mean Amplitude | 1.95 (2.01) | 3.10 (3.18) | 1.044 | 0.307 |