

Supplemental Material S3. Linear mixed models with hearing history.

| Span direction | Random intercept variance | Predictors | <i>t</i> | <i>p</i> |
|----------------|---------------------------|-----------------------------------|---------------|-----------------|
| Forward | 1.03, <i>SD</i> = 1.00 | CTONI-2 | 4.6 | < .01 |
| | | Age at identification of deafness | −0.4 | .72 |
| | | Preimplant residual hearing | −0.2 | .85 |
| | | Age at fit of CI | 0.6 | .55 |
| | | Duration of CI use | 1.1 | .27 |
| | | Bilateral implantation | −1.6 | .11 |
| | | Stimulus (digits–objects)* | −8.0 | < .01 |
| | | Stimulus (digits–symbols) | −15.11 | < .01 |
| | | Stimulus (objects–symbols) | −7.2 | < .01 |
| Backward | 0.99, <i>SD</i> = 0.99 | CTONI-2 | 3.9 | < .01 |
| | | Age at identification of deafness | −1.1 | .28 |
| | | Preimplant residual hearing | 0.5 | .63 |
| | | Age at fit of CI | 1.0 | .32 |
| | | Duration of CI use | 2.2 | .03 |
| | | Bilateral implantation | −0.5 | .64 |
| | | Stimulus (digits–objects) | −5.5 | < .01 |
| | | Stimulus (digits–symbols) | −8.2 | < .01 |
| | | Stimulus (objects–symbols) | −2.8 | < .01 |

Note. CTONI-2 = Comprehensive Test of Nonverbal Intelligence–Second Edition (Hammill, Pearson, & Wiederholt, 2009); CI = cochlear implant.

*A minus sign (−) denotes the effect of changing levels of the variable *stimulus*—for example, the variance due to shifting stimuli from digits to objects.

Reference

Hammill, D. D., Pearson, N. A., & Wiederholt, J. L. (2009). *Comprehensive Test of Nonverbal Intelligence–Second Edition*. Austin, TX: Pro-Ed.