

# **Supplemental Appendix D. Model Fit of Sequential Multilevel Negative Binomial Regression Models of Disfluencies**

|  | <i>df</i> | <i>AIC</i> | <i>BIC</i> | <i>-2LL</i> | <i>X</i> <sup>2</sup> | <i>p</i> |
|--|-----------|------------|------------|-------------|-----------------------|----------|
| M1: Individual Intercept Only                | 3         | 40916      | 40937      | -20455      |                       |          |
| M2: Added Speaker                            | 4         | 40904      | 40933      | -20448      | 13.88                 | < .001   |
| M3: Added Disfluency                         | 5         | 39181      | 39217      | -19586      | 1724.34               | < .00001 |
| M4: Added Task                               | 6         | 39168      | 39211      | -19578      | 15.15                 | < .0001  |
| M5: Added 2-way interactions                 | 8         | 37435      | 37493      | -18710      | 1737.10               | < .00001 |
| M6: Added Trial and its interactions         | 14        | 37429      | 37530      | -18701      | 37401                 | .007     |
| M7: Added 3-way interactions (removed Trial) | 10        | 37438      | 37510      | -18709      | 1.48                  | .48      |
| M8: Added Domain * ISI * Loads               | 30        | 37466      | 37681      | -18703      | 12.08 <sup>a</sup>    | .91      |

*Note.* Models were fit using Maximum Likelihood Estimation (Laplace Approximation), utilized a negative binomial logarithmic link function ( $\theta = 6.07$ ), and included the random effect of an individual-level intercept (Var = .27).

<sup>a</sup>Compares M5 to M7.