Supplementary Information

S1. SEM with fiml instad of fiml.x for missing values.

The loadings for the model are shown in Figure S1. The values on paths that are significant are also significant in the model reported in Step 3 of the Results.

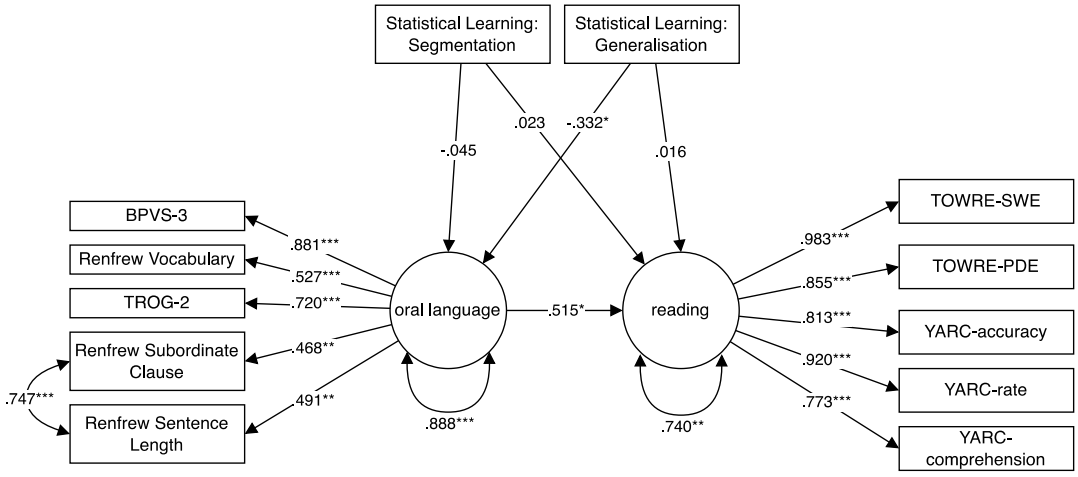

*Figure S1. Relations between statistical learning, oral language, and reading. Values on paths are standardised estimates. * p < .05, ** p < .01, *** p < .001.*

S2. SEM including only reading fluency and omitting the reading comprehension measure

We repeated the structural equation model from Step 3 using a single latent variable for reading, but omitting the measure of reading comprehension. Thus, the reading latent variable represents reading fluency. This analysis was conducted to determine whether this provided any evidence for a direct relation between statistical learning measures and aspects of reading related to decoding. The loadings for the model are shown in Figure S2. The paths that are significant in the main paper in Step 3 remain significant, and no additional paths are significant in this model. Thus, the model provides no new evidence of a direct relation between statistical learning and reading that is not mediated by oral language.

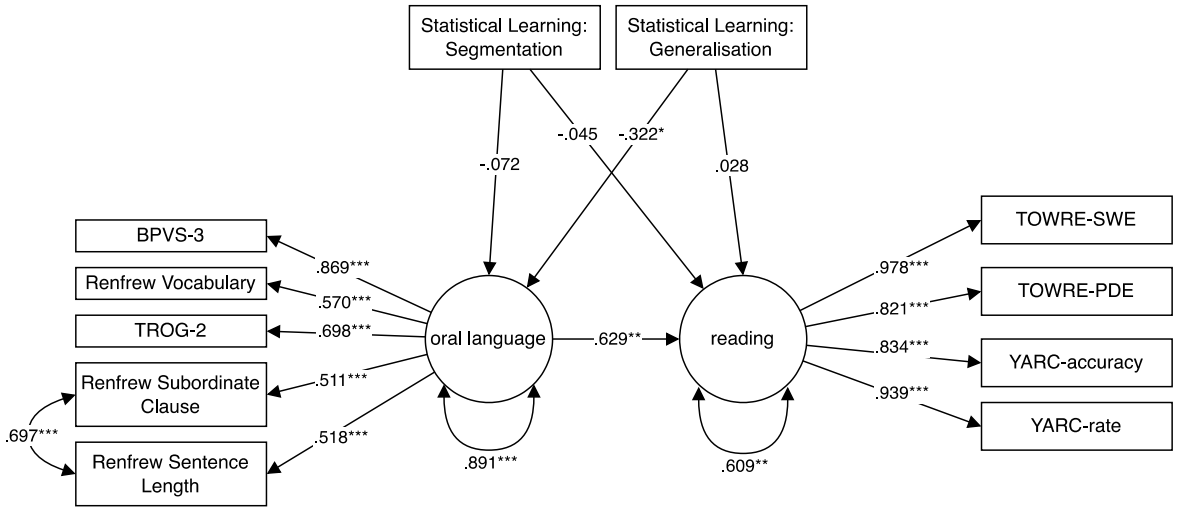

*Figure S2. Relations between statistical learning, oral language, and reading, where reading omits reading comprehension measure. Values on paths are standardised estimates. * p < .05, ** p < .01, *** p < .001.*