Supplemental Material S2. Linear mixed-effects model on decline in speech perception.

$$WRCM_{ij} = \beta_0 + \beta_1 age_{ij} + \beta_2 agegroup_i + \beta_3 occupation_i + \beta_4 musicianship_i +$$

$$\beta_5 musicianship_i * age_{ij} + \beta_6 CV_i + U_{0i} + e_{ij}$$

- $WRCM_{ij}$ is the word recognition in competing message performance [% correct] of ith participant at jth occasion

- age_{ij} is the age (centered with baseline mean) of ith participant at jth occasion

- $agegroup_i$ is the age group of ith participant at baseline (groups: 40-59; 60-69; 70+ years)

- $occupation_i$ is the education of the ith participant at baseline

- $musicianship_i$ is the musicianship status of ith participant at baseline

- CV_i is the vector of covariates at baseline of ith participant

- U_{0i} is the random intercept

- e_{ij} is the residual