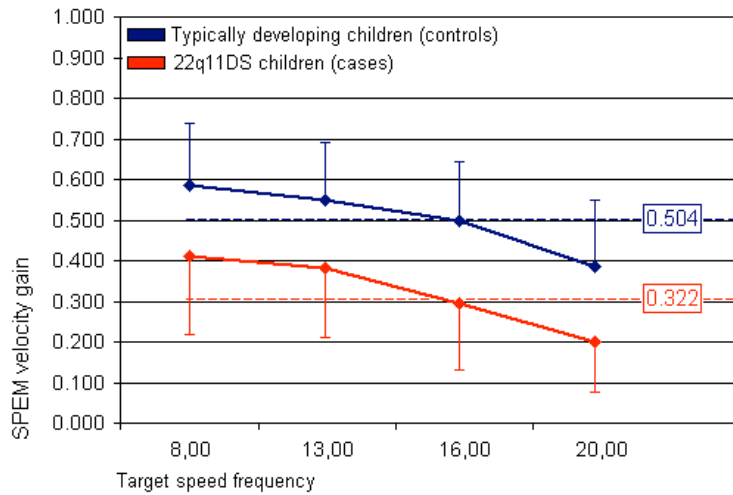
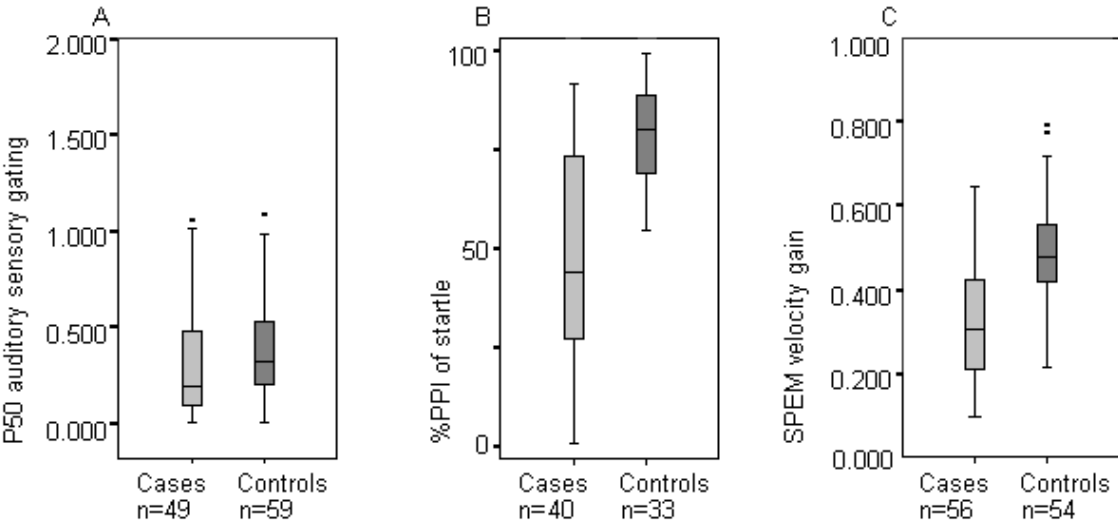


Supplementary Figure 1: SPEM velocity gain; 22q11DS subjects vs. controls

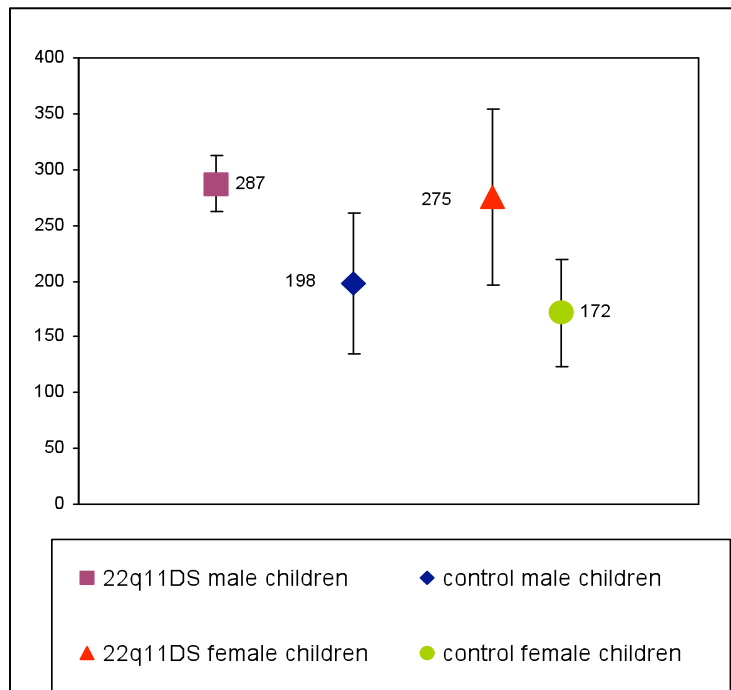


Supplementary figure 1: Velocity gain of the first 4 target speed frequencies in normal controls (blue) and subjects with 22q11DS (red). For the purpose of testing the hypothesis of this study the averages of the velocity gain (dotted lines) of the first 4 target speed frequencies were calculated for each individual. In this figure group averages are shown (0.504 for controls and 0.322 for the 22q11DS children).

Supplementary Figure 2: Data outliers

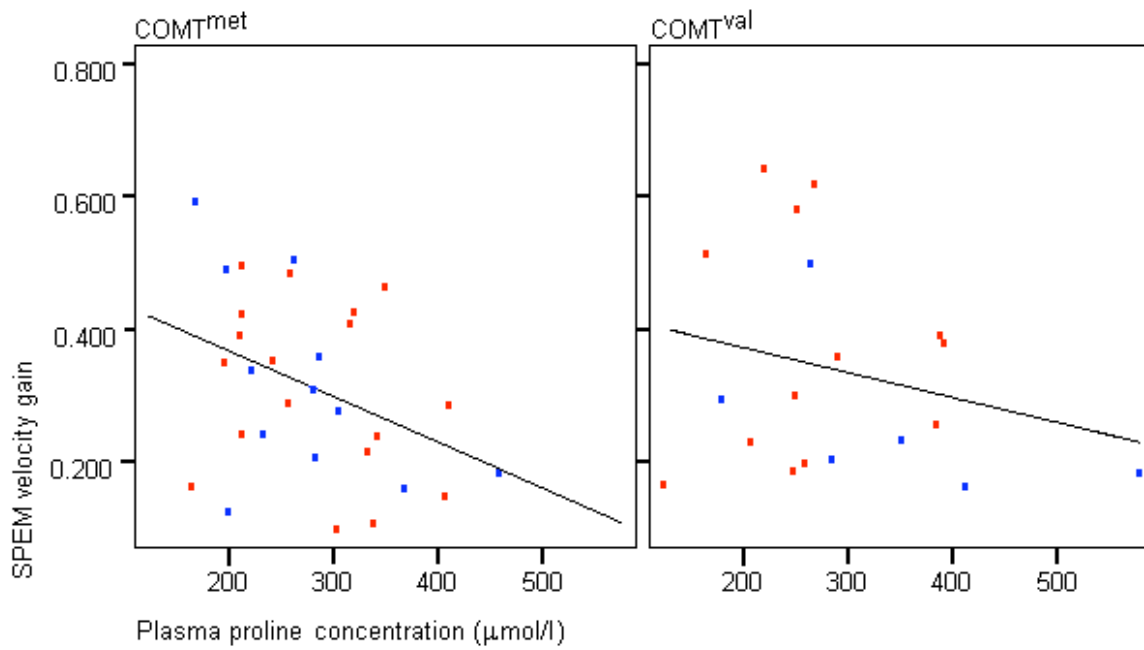


Supplementary figure 3: Plasma proline levels in 22q11DS children and normal control children.



Supplementary figure 3: In 52 children with 22q11DS plasma proline levels were assessed. We did not collect data on plasma proline levels in typically developing children. However, proline levels in normal adult subjects (n=62) were available. This adult sample was assessed using the same analysis equipment, in the same laboratory facility as where the 22q11DS subjects in the present study were assessed. Average proline values of normal adults tested in our laboratory were equal to the values reported for adults by Armstrong et al. in 1973 {Armstrong, 1973 870 /id} (p = 0.99, t-test). Thus, we felt sufficiently confident to compare proline levels in our 22q11DS group to proline data on typically developing children reported in the same study by Armstrong et al. (76 boys aged 6 to 18 years and 60 girls aged 6 to 18 years). Plasma proline levels were significantly higher in the 22q11DS sample (p<0.01, t-test) in comparison to normal control children.

Supplementary figure 4: Scatterplot SPEM performance * plasma proline values in COMT¹⁵⁸ subgroups

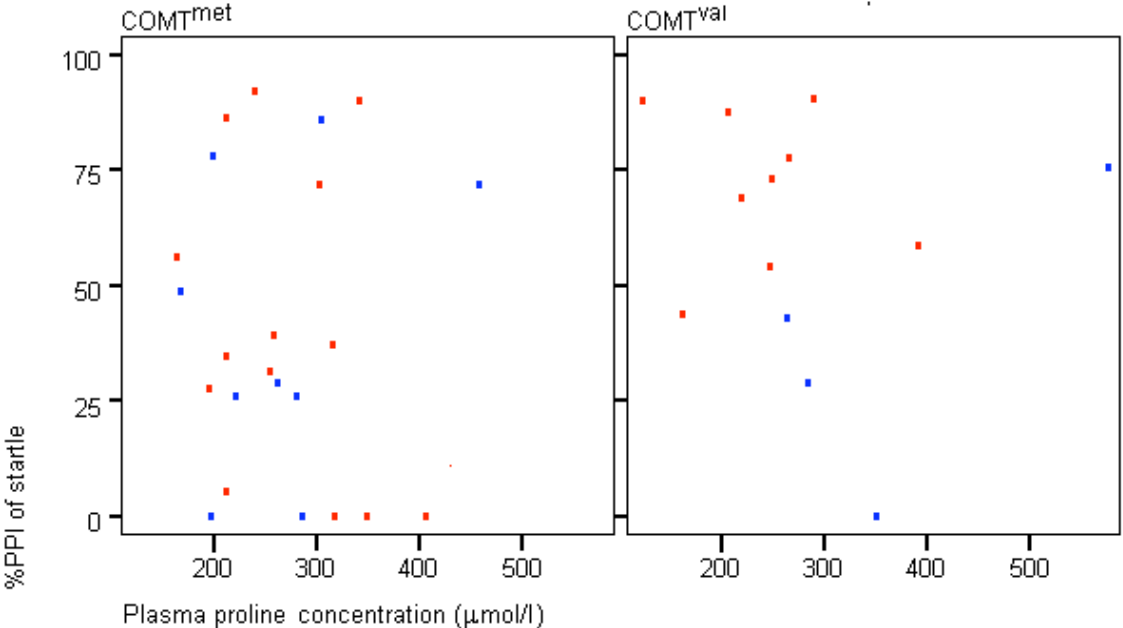


Supplementary figure 5: Individual PPI results (Y-axis) plotted against plasma proline concentration (X-axis), red dots indicate female subjects, blue dots indicate male subjects.

COMT^{met}: Pearson's $r = -0.383$, $p = 0.037$

COMT^{val}: Pearson's $r = -0.252$, $p = 0.298$

Supplementary figure 5: Scatterplot PPI performance * plasma proline values in COMT¹⁵⁸ subgroups



Supplementary figure 5: Individual PPI results (Y-axis) plotted against plasma proline concentration (X-axis), red dots indicate female subjects, blue dots indicate male subjects.

COMT^{met}: Pearson's r = -0.035, p = 0.874

COMT^{val}: Pearson's r = -0.137, p = 0.656