Validating the Goldsmiths Musical Sophistication Index in a Sample of American Participants

David John Baker, Juan A. Ventura, Daniel Shanahan, & Emily M. Elliott
Louisiana State University, School of Music & Psychology Department

Aims

• Recreate Analyses from 2014 Goldsmiths Musical Sophistication Index
• Compare Model Fits

Table 1: Bi-Factor Fit Indexes

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Goldsmiths</th>
<th>LSU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi</td>
<td>166170</td>
<td>1972</td>
</tr>
<tr>
<td>df</td>
<td>627</td>
<td>647</td>
</tr>
<tr>
<td>BIC</td>
<td>167448</td>
<td>31629</td>
</tr>
<tr>
<td>TLI</td>
<td>0.874</td>
<td>0.675</td>
</tr>
<tr>
<td>CFI</td>
<td>0.884</td>
<td>0.700</td>
</tr>
<tr>
<td>RMSEA</td>
<td>0.06</td>
<td>0.091</td>
</tr>
<tr>
<td>SRMR</td>
<td>0.064</td>
<td>0.216</td>
</tr>
</tbody>
</table>

Analysis I

Sample data from both LSU (N = 250) and Table 2 of Original GMSI (N = 147,633).

Analysis II

Structural Equation Modeling of five subfactors and objective listening tests.

Conclusions

• Similar Model Estimates
• Poor Model Fit follows original paper
• Small sample may confound
• Further Explore Hypothesized Factor Structure
• Collect more data to meet suggested CFA thresholds