

Multi-level:

$$\begin{aligned}
\text{Classical}_i &= \alpha_{0j[i]} + \alpha_{\text{guitar},j[i]} \cdot 1_{\{\text{Instrument}_i=\text{guitar}\}} + \alpha_{\text{piano},j[i]} \cdot 1_{\{\text{Instrument}_i=\text{piano}\}} + \alpha_{\text{string},j[i]} \cdot 1_{\{\text{Instrument}_i=\text{string}\}} + \\
&\quad \alpha_{\text{contrary},j[i]} \cdot 1_{\{\text{Voice}_i=\text{contracy}\}} + \alpha_{\text{par3rd},j[i]} \cdot 1_{\{\text{Voice}_i=\text{par3rd}\}} + \alpha_{\text{par5th},j[i]} \cdot 1_{\{\text{Voice}_i=\text{par5th}\}} + \\
&\quad \alpha_{\text{I-IV-V},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{I-IV-V}\}} + \alpha_{\text{I-V-IV},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{I-V-IV}\}} + \\
&\quad \alpha_{\text{I-V-VI},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{I-V-VI}\}} + \alpha_{\text{IV-I-V},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{IV-I-V}\}} + \epsilon_i, \quad \epsilon_i \stackrel{iid}{\sim} N(0, \sigma^2) \\
\alpha_{0j} &= \beta_0 + \eta_{0j}, \quad \eta_{0j} \stackrel{iid}{\sim} N(0, \tau_0^2) \\
\alpha_{\text{guitar},j} &= \beta_{\text{guitar}} + \eta_{\text{guitar},j}, \quad \eta_{\text{guitar},j} \stackrel{iid}{\sim} N(0, \tau_{\text{guitar}}^2) \\
\alpha_{\text{piano},j} &= \beta_{\text{piano}} + \eta_{\text{piano},j}, \quad \eta_{\text{piano},j} \stackrel{iid}{\sim} N(0, \tau_{\text{piano}}^2) \\
\alpha_{\text{string},j} &= \beta_{\text{string}} + \eta_{\text{string},j}, \quad \eta_{\text{string},j} \stackrel{iid}{\sim} N(0, \tau_{\text{string}}^2) \\
\alpha_{\text{contrary},j} &= \beta_{\text{contrary}} + \eta_{\text{contrary},j}, \quad \eta_{\text{contrary},j} \stackrel{iid}{\sim} N(0, \tau_{\text{contrary}}^2) \\
\alpha_{\text{par3rd},j} &= \beta_{\text{par3rd}} + \eta_{\text{par3rd},j}, \quad \eta_{\text{par3rd},j} \stackrel{iid}{\sim} N(0, \tau_{\text{par3rd}}^2) \\
\alpha_{\text{par5th},j} &= \beta_{\text{par5th}} + \eta_{\text{par5th},j}, \quad \eta_{\text{par5th},j} \stackrel{iid}{\sim} N(0, \tau_{\text{par5th}}^2) \\
\alpha_{\text{I-IV-V},j} &= \beta_{\text{I-IV-V}} + \eta_{\text{I-IV-V},j}, \quad \eta_{\text{I-IV-V},j} \stackrel{iid}{\sim} N(0, \tau_{\text{I-IV-V}}^2) \\
\alpha_{\text{I-V-IV},j} &= \beta_{\text{I-V-IV}} + \eta_{\text{I-V-IV},j}, \quad \eta_{\text{I-V-IV},j} \stackrel{iid}{\sim} N(0, \tau_{\text{I-V-IV}}^2) \\
\alpha_{\text{I-V-VI},j} &= \beta_{\text{I-V-VI}} + \eta_{\text{I-V-VI},j}, \quad \eta_{\text{I-V-VI},j} \stackrel{iid}{\sim} N(0, \tau_{\text{I-V-VI}}^2) \\
\alpha_{\text{IV-I-V},j} &= \beta_{\text{IV-I-V}} + \eta_{\text{IV-I-V},j}, \quad \eta_{\text{IV-I-V},j} \stackrel{iid}{\sim} N(0, \tau_{\text{IV-I-V}}^2)
\end{aligned}$$

Hierarchical:

It's actually somewhat difficult to write the Hierarchical model efficiently. One way would be to define

$$\begin{aligned}
m_i &= \alpha_{0j[i]} + \alpha_{\text{guitar},j[i]} \cdot 1_{\{\text{Instrument}_i=\text{guitar}\}} + \alpha_{\text{piano},j[i]} \cdot 1_{\{\text{Instrument}_i=\text{piano}\}} + \alpha_{\text{string},j[i]} \cdot 1_{\{\text{Instrument}_i=\text{string}\}} + \\
&\quad \alpha_{\text{contrary},j[i]} \cdot 1_{\{\text{Voice}_i=\text{contracy}\}} + \alpha_{\text{par3rd},j[i]} \cdot 1_{\{\text{Voice}_i=\text{par3rd}\}} + \alpha_{\text{par5th},j[i]} \cdot 1_{\{\text{Voice}_i=\text{par5th}\}} + \\
&\quad \alpha_{\text{I-IV-V},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{I-IV-V}\}} + \alpha_{\text{I-V-IV},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{I-V-IV}\}} + \\
&\quad \alpha_{\text{I-V-VI},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{I-V-VI}\}} + \alpha_{\text{IV-I-V},j[i]} \cdot 1_{\{\text{Harmony}_i=\text{IV-I-V}\}}
\end{aligned}$$

and then write, ignoring the correlations again,

$$\begin{aligned}
\text{Classical}_i &\sim N(m_i, \sigma^2) \\
\alpha_{0j} &\sim \beta_0 + \eta_{0j}, \quad \eta_{0j} \stackrel{iid}{\sim} N(0, \tau_0^2) \\
\alpha_{\text{guitar},j} &\sim N(\beta_{\text{guitar}}, \tau_{\text{guitar}}^2) \\
\alpha_{\text{piano},j} &\sim N(\beta_{\text{piano}}, \tau_{\text{piano}}^2)
\end{aligned}$$

$$\begin{aligned}
\alpha_{string,j} &\sim N(\beta_{string}, \tau_{string}^2) \\
\alpha_{contrary,j} &\sim N(\beta_{contrary}, \tau_{contrary}^2) \\
\alpha_{par3rd,j} &\sim N(\beta_{par3rd}, \tau_{par3rd}^2) \\
\alpha_{par5th,j} &\sim N(\beta_{par5th}, \tau_{par5th}^2) \\
\alpha_{I-IV-V,j} &\sim N(\beta_{I-IV-V}, \tau_{I-IV-V}^2) \\
\alpha_{I-V-IV,j} &\sim N(\beta_{I-V-IV}, \tau_{I-V-IV}^2) \\
\alpha_{I-V-VI,j} &\sim N(\beta_{I-V-VI}, \tau_{I-V-VI}^2) \\
\alpha_{IV-I-V,j} &\sim N(\beta_{IV-I-V}, \tau_{IV-I-V}^2)
\end{aligned}$$

A fully correct specification would express the random vector of α 's as a multivariate normal, like this for the model with random effects (Instrument + Voice + Harmony || Subject), for example:

$$\begin{pmatrix} \alpha_{0,j} \\ \alpha_{guitar,j} \\ \alpha_{piano,j} \\ \alpha_{string,j} \\ \alpha_{contrary,j} \\ \alpha_{par3rd,j} \\ \alpha_{par5th,j} \\ \alpha_{I-IV-V,j} \\ \alpha_{I-V-IV,j} \\ \alpha_{I-V-VI,j} \\ \alpha_{IV-I-V,j} \end{pmatrix} \stackrel{iid}{\sim} N \left(\begin{pmatrix} \beta_{0,j} \\ \beta_{guitar} \\ \beta_{piano} \\ \beta_{string} \\ \beta_{contrary} \\ \beta_{par3rd} \\ \beta_{par5th} \\ \beta_{I-IV-V} \\ \beta_{I-V-IV} \\ \beta_{I-V-VI} \\ \beta_{IV-I-V} \end{pmatrix}, \begin{pmatrix} \tau_{0,j} & & & & & & & & & & \\ 0 & \tau_{guitar}^2 & & & & & & & & & \\ 0 & \rho_{gp} & \tau_{piano}^2 & & & & & & & & \\ 0 & \rho_{gs} & \rho_{ps} & \tau_{string}^2 & & & & & & & \\ 0 & 0 & 0 & 0 & \tau_{contrary}^2 & & & & & & \\ 0 & 0 & 0 & 0 & \rho_{c3} & \tau_{par3rd}^2 & & & & & \\ 0 & 0 & 0 & 0 & \rho_{c5} & \rho_{35} & \tau_{par5th}^2 & & & & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \tau_{I-IV-V}^2 & & & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \rho_{145,154} & \tau_{I-V-IV}^2 & & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \rho_{145,156} & \rho_{154,156} & \tau_{I-V-VI}^2 & \\ 0 & 0 & 0 & 0 & 0 & 0 & 0 & \rho_{145,415} & \rho_{154,415} & \rho_{156,415} & \tau_{IV-I-V}^2 \end{pmatrix} \right) \quad (symmetric)$$

and the model with random effects (Instrument + Voice + Harmony | Subject) would look the same, except the 0's in the variance-covariance matrix above would be replaced with additional correlations.