

Patrick J. Curran

*The Department of Psychology
and Neuroscience*

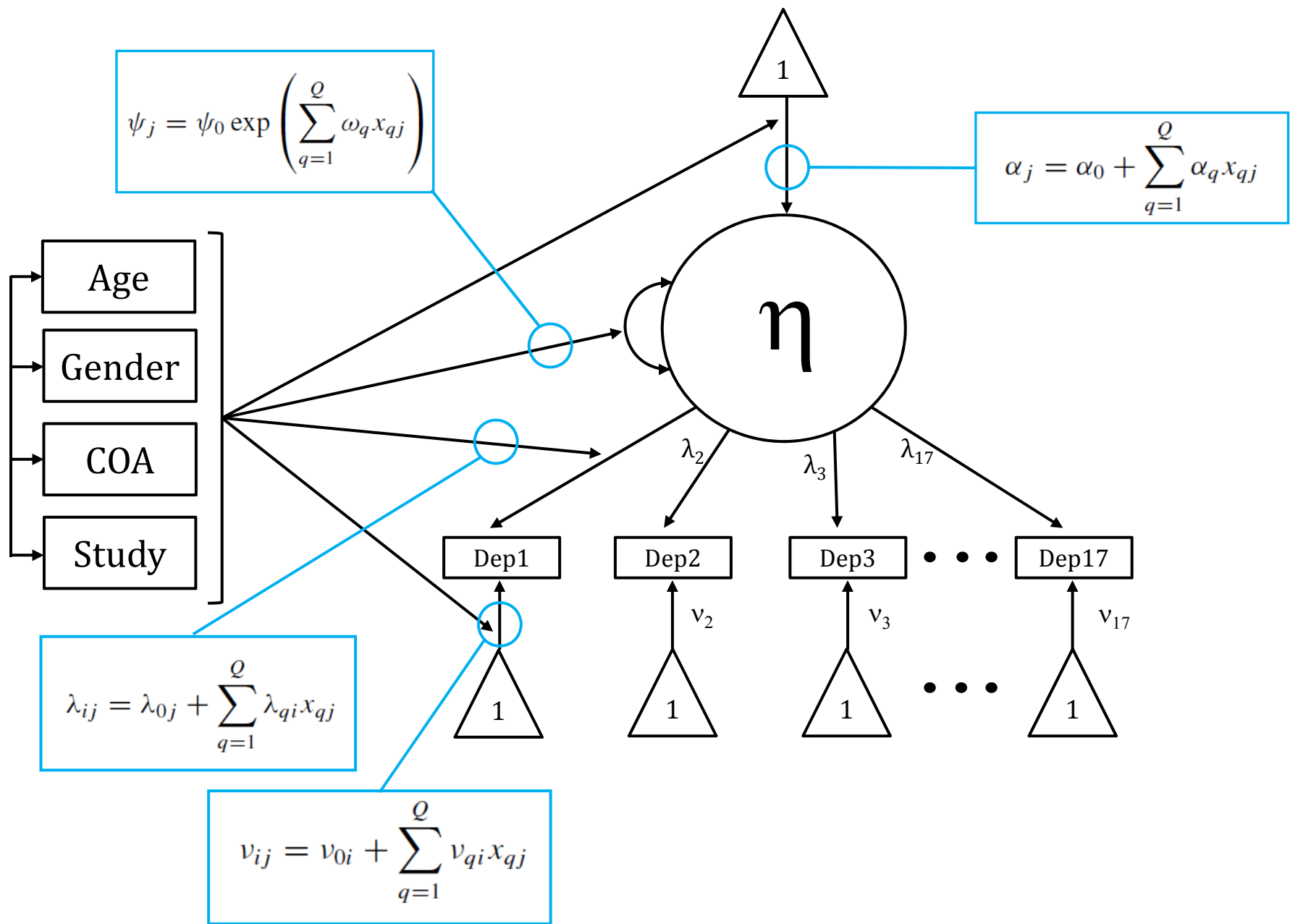
Director, L.L. Thurstone Psychometric Lab

curran@unc.edu

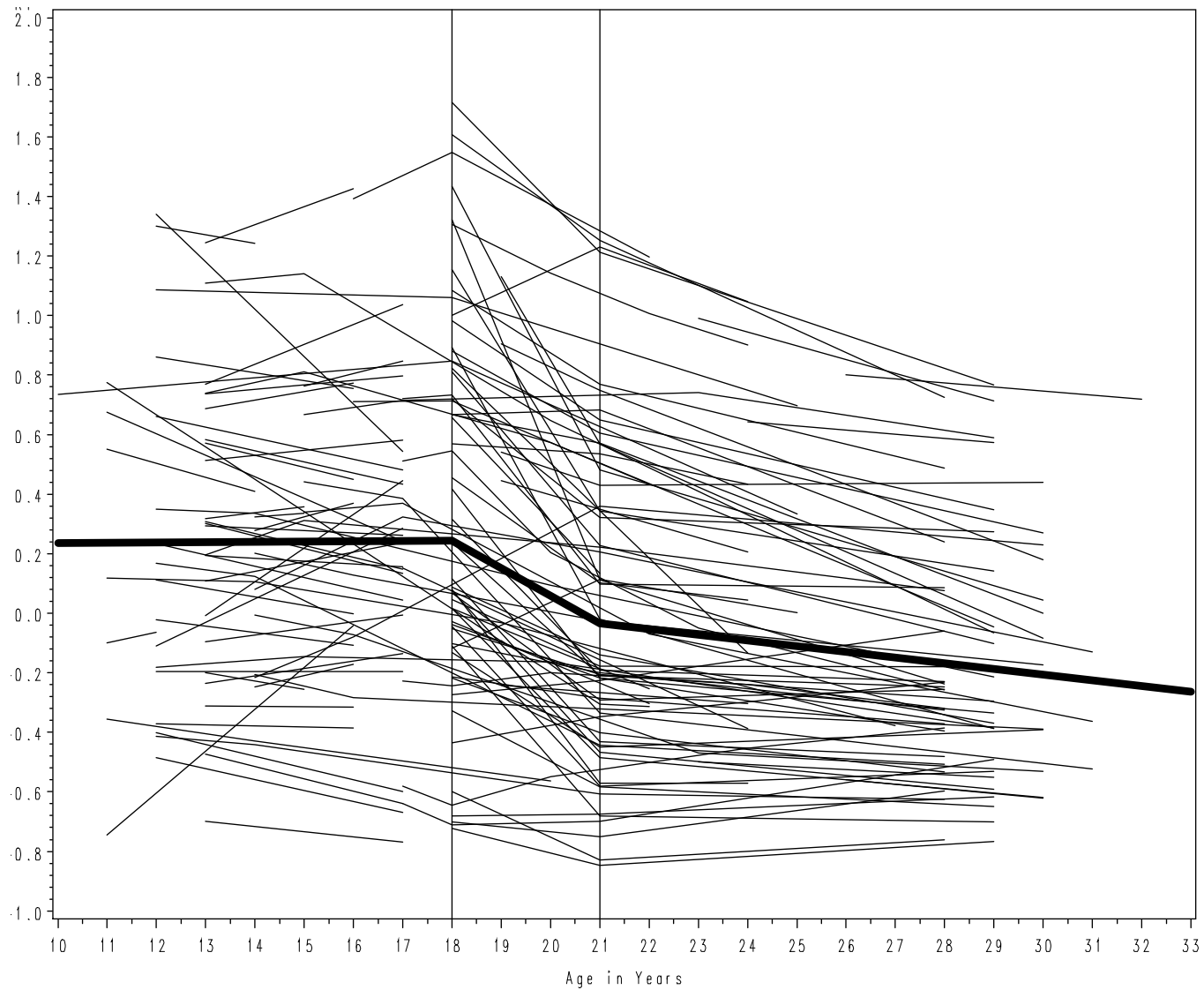
919.962.5235

Department of Psychology & Neuroscience

- 45+ faculty, 125+ graduate students, 1100+ BA/BS majors
- Doctoral programs in *Behavioral Neuroscience, Clinical, Cognitive, Developmental, Social, and Quantitative*
 - *fMRI, ERP, network connectivity, wearable devices, social media, eye tracking*
- Quant Psych housed in Thurstone Psychometric Laboratory
 - **Daniel Bauer**: non-linear random effects modeling
 - **Ken Bollen**: longitudinal structural equation modeling
 - **Laura Castro-Schilo**: dynamic time series analysis
 - **Patrick Curran**: longitudinal integrative data analysis
 - **Katie Gates**: high-dimensional fMRI modeling
 - **Abigail Panter**: large-scale program evaluation
 - **David Thissen**: item response theory and longitudinal testing
- **Unifying Theme**: the measurement and modeling of high-dimensional longitudinal data



Empirical Bayes Time Trends Over 20 Years



Current Strengths & Future Directions

- *Department of Psychology and Neuroscience* emphasizes the complex intersection of environmental & neural systems
- *Thurstone Lab* specializes in the measurement and modeling of high-dimensional longitudinal data
 - novel quant contributions and support of broader Department
- *Future directions*
 - **research**: foster interdisciplinary collaborative relationships
 - optimization, process automation, substantive applications
 - **training**: develop curriculum for next generation scientists
 - undergraduate / terminal MA / doctoral & post-doctoral training
 - **service**: support UNC and community to leverage big data
 - guidance for increasing demands for evaluation of complex data
 - **diversity**: provide structured and meaningful support for historically under-represented groups and diverse academic perspectives