SEM Week 11: Multigroup CFA Round 2

1. Comparisons
   1. Factor covariances = correlations are equal between factors for groups?
   2. Latent means = t-test or anova between groups
2. MG-CFA versus MIMIC
   1. MG = run CFAs pancaked on top of each other, two separate matrices are used in the magic math background, better because you can test a lot of constraints at once.
   2. MIMIC – multiple indicators multiple causes (where does the second I come from?)
      1. CFA with covariates
      2. Sort of like interactions with dummy variables
      3. Groups -> latent factors = groups differences on latent means
      4. Groups -> indicator = group differences on item intercepts
      5. Better for loads of groups (maybe some with small N)
3. Terminology
   1. Configural invariance = Equal form = pattern of loadings and factor numbers same (same pictures)
   2. Metric invariance = factor loadings
   3. Scalar invariance = intercepts
   4. Strict factorial invariance = error variances
4. Order
   1. Separate CFAs for groups
   2. Configural invariance = equal form
   3. Metric invariance = factor loadings
   4. Scalar invariance = intercepts
   5. Strict factorial invariance = error variances (not always done)
   6. Population heterogeneity
      1. Equal factor variances (vvv in amos)
      2. Equal factor covariances (ccc in amos)
      3. Equal latent means
5. 
6. Heterogeneity tests
   1. Factor variances needs factor loadings to be the same
   2. Factor covariances needs factor loadings and variances
   3. Latent means needs factor loadings and intercepts
7. Things to think about
   1. What about the question loading you set to 1?