Causal Factor Structure

1. Determining causal structure is a bit like taking regular confirmatory factor analysis and adding direct arrows between latents instead of just covariance.
   1. So you’ll need theory to back up those predicted directions.
2. Full SEM
   1. Structural = relationship between latents
   2. Measurement = relationship between measured variables and the latents
3. New trick:
   1. Interface properties > paper layout > landscape
4. In causal models you will have:
   1. Covariances between related factors that are correlated but you do not have an expected direction
   2. Direct relationship causal arrows.
5. Post Hoc analyses 🡪 examining modification indices to see if they fit with theorized model changes
   1. Use the chi square difference test to determine if the change in pathways help the model (often you’ll see very little change in the FIs/RMs…)
   2. Usually people change one path at a time to indicate that was the only reason model fit improved
   3. May also consider removing pathways that are not significant
      1. You would find this information under Estimates in the output
6. Final thoughts
   1. Ask for the standardized estimates – you will be able to find errors (Heywood cases) when standardized estimates are over 1
   2. Ask for the squared multiple correlations – this value will give you the percent of variance accounted for by the paths in or out of that variable