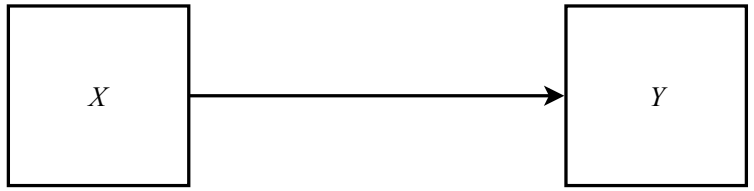
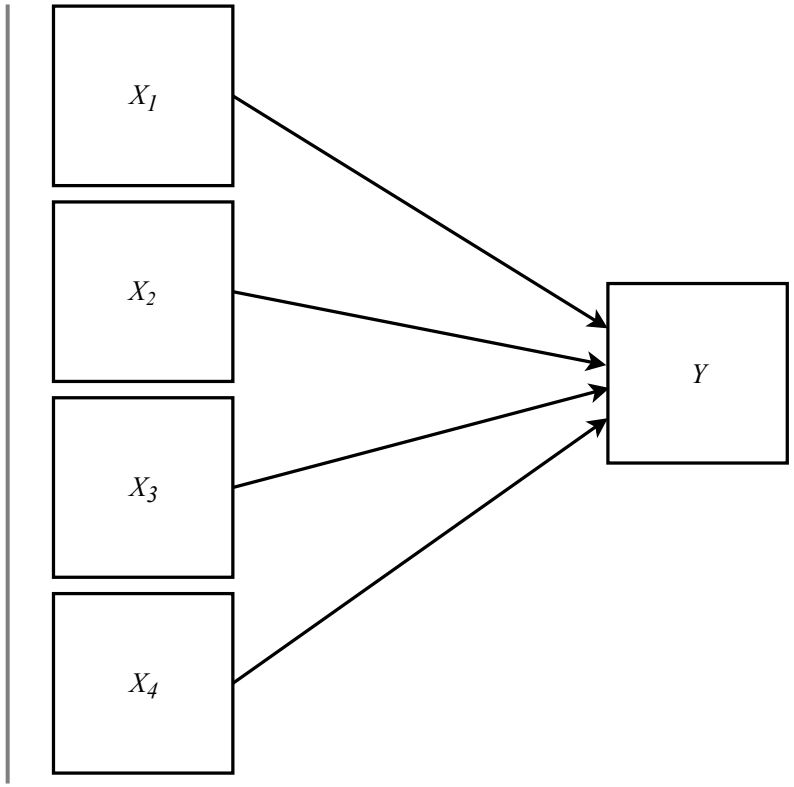
Making a case for MplusAutomation

*An attempt to convince you that this is a good idea

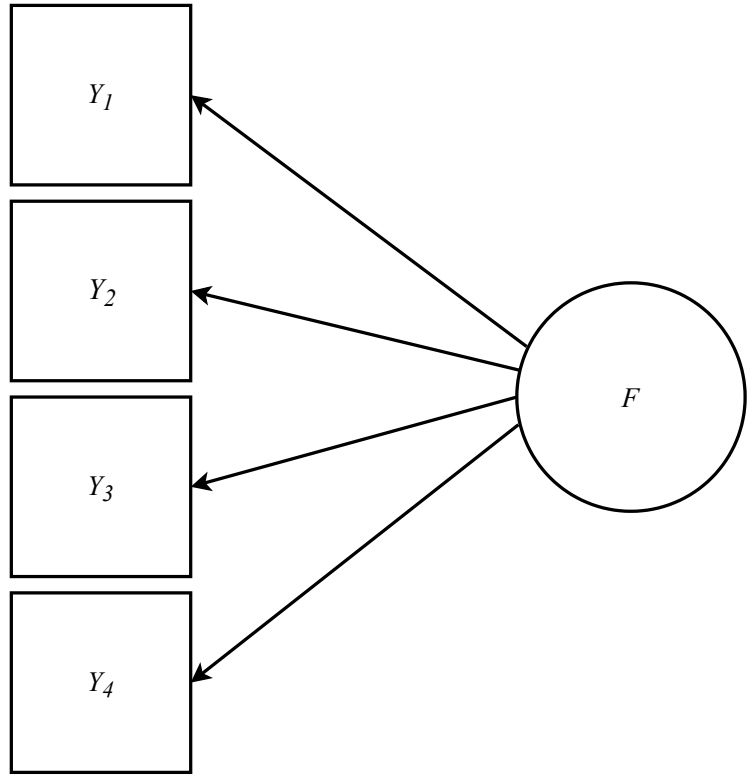
simple regression



multiple regression



factor analysis



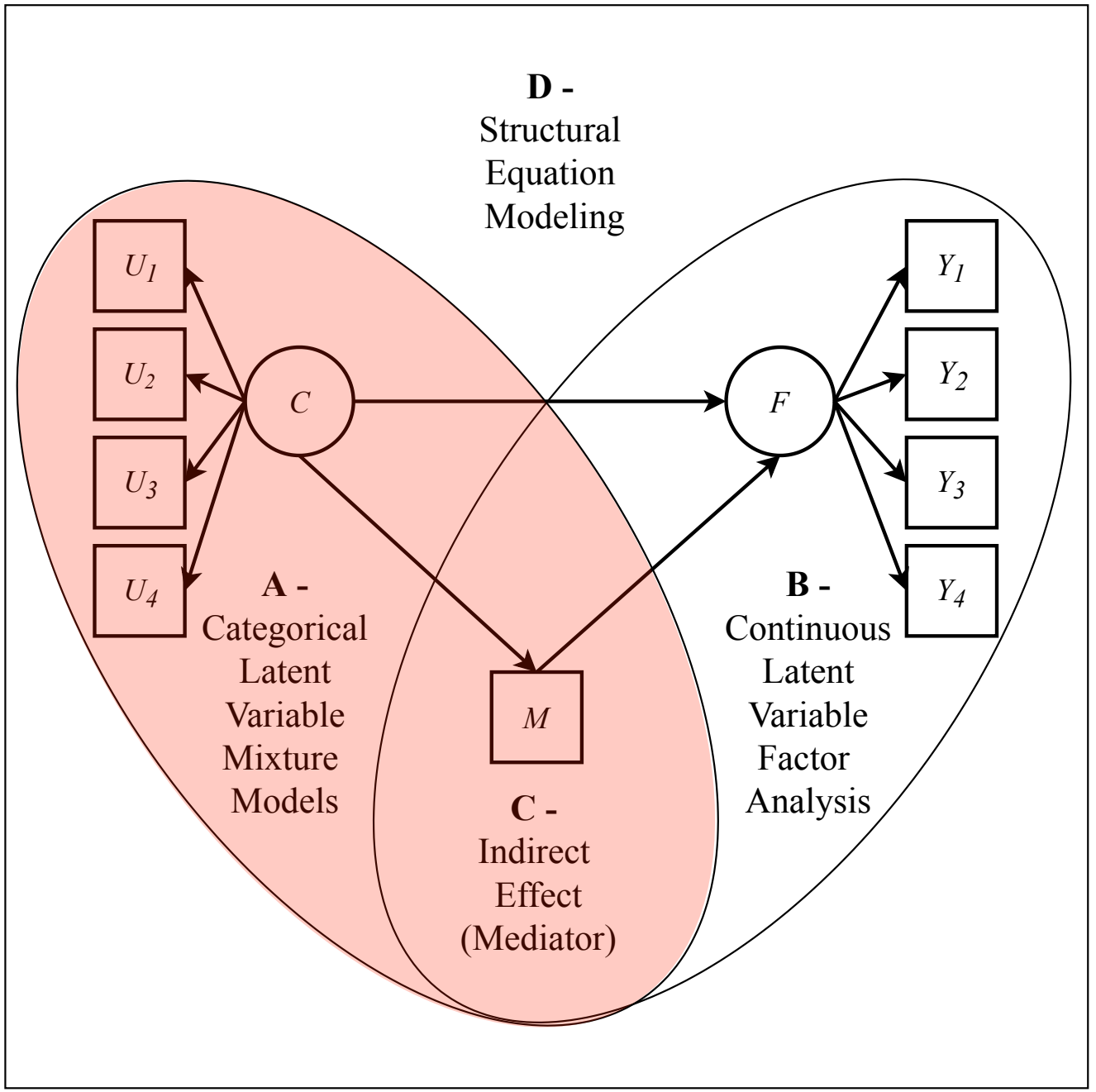
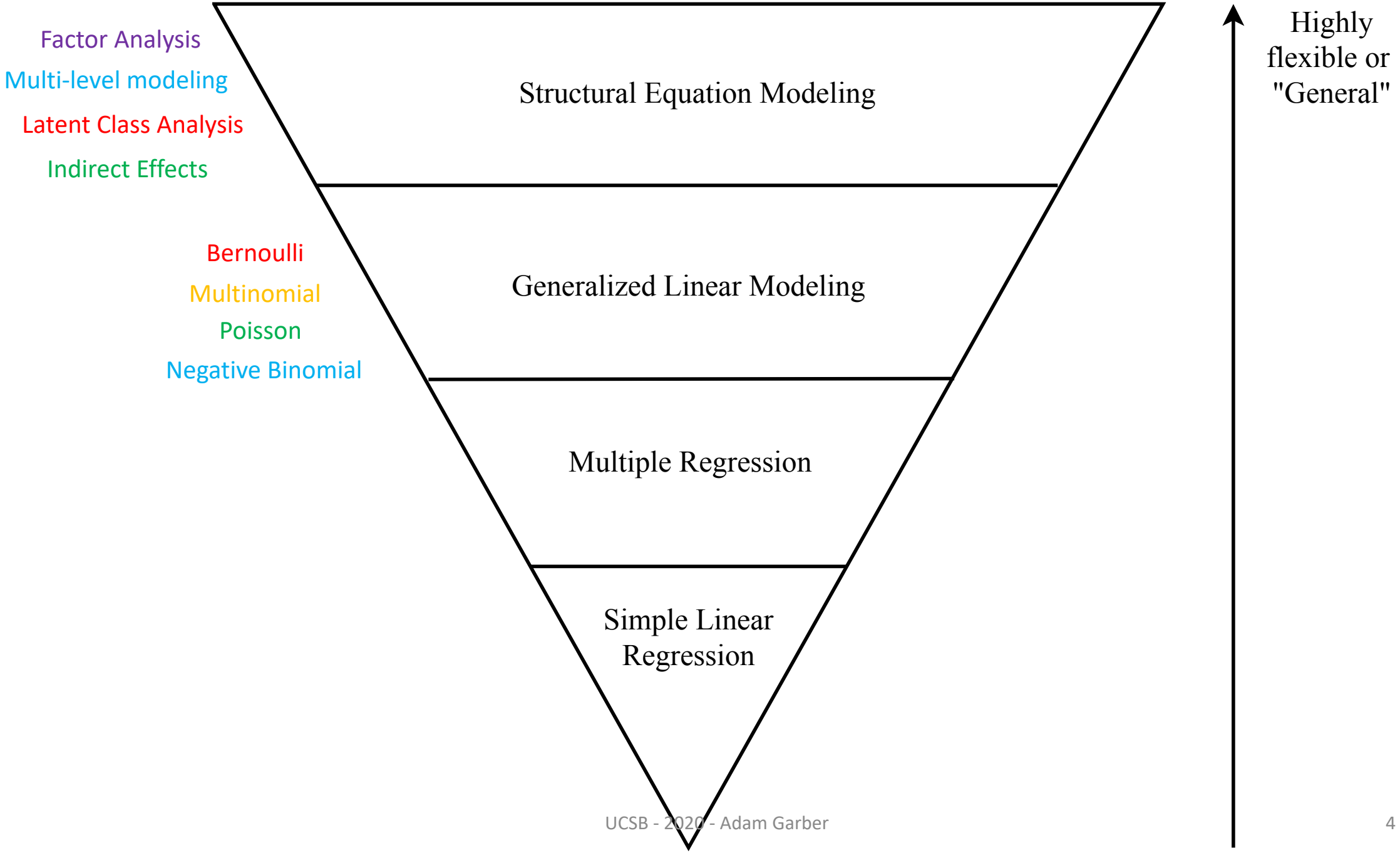


***figure adapted from Múthen, 2006**


Factor Analysis
Multi-level modeling
Latent Class Analysis
Indirect Effects
Structural Equation Modeling
Bernoulli
Multinomial
Poisson
Negative Binomial
Generalized Linear Modeling
Multiple Regression
Simple Linear Regression
Highly flexible or "General"

What is MplusAutomation? … and why are we using it?

MplusAutomation*: An R Package for Facilitating Large-Scale Latent Variable Analyses in M*plus

Michael N. Hallquist & Joshua F. Wiley

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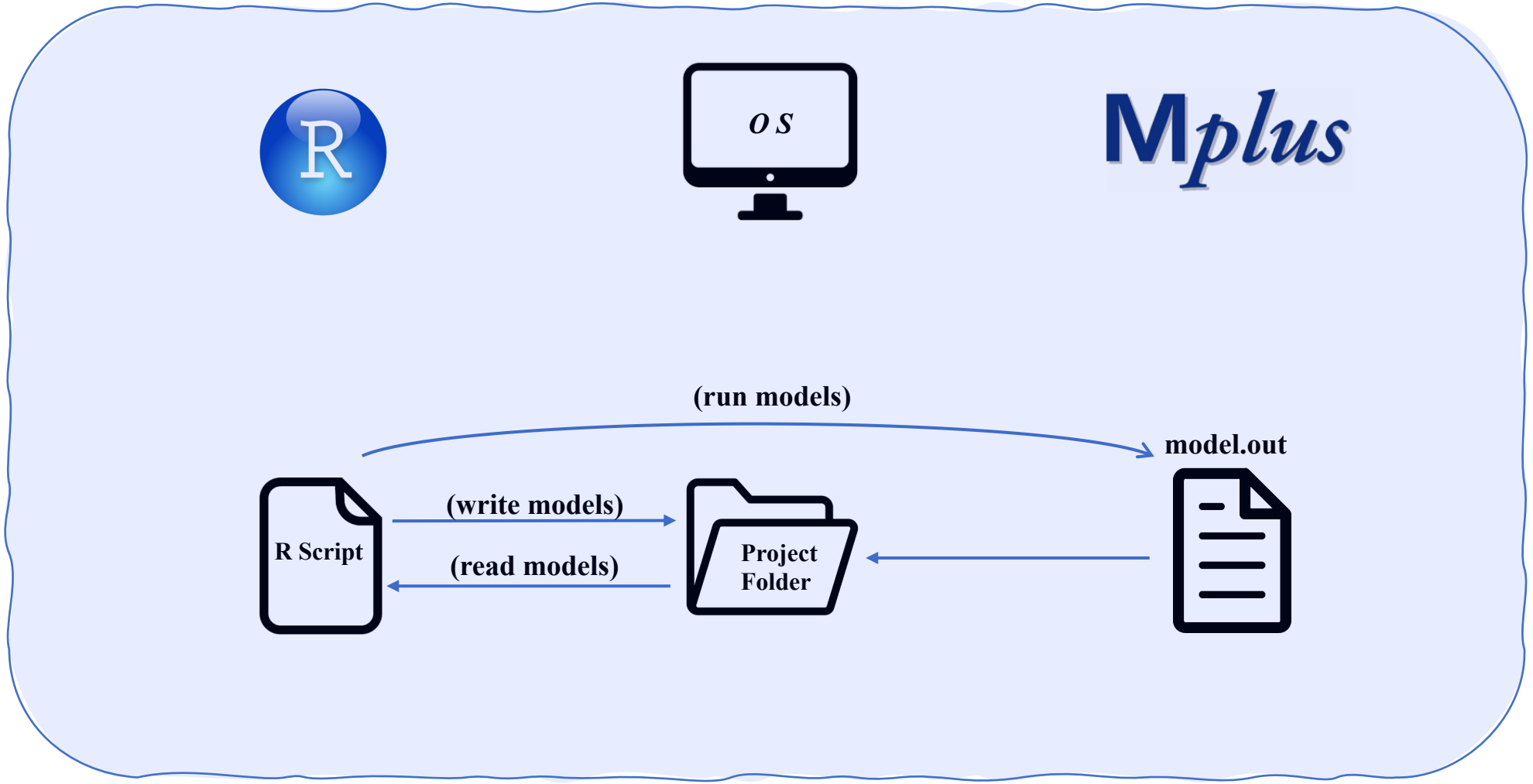
WHAT?

- MplusAutomation is a package within R
- It "wraps around" the Mplus program
- Requires both R & Mplus software
- Requires learning some basics of 2 programming languages
- Car metaphor: R is the *steering wheel* or *dashboard* & Mplus is the *engine*

WHY?

- Combines the **full** flexibility of SEM modeling provided by Mplus with the reproducibility and streamlined interface of R/Rstudio

HOW?

- In lab, I will interface entirely within R-Studio
- All code (in both languages) expected in class will be provided in lab
- You are not expected to have general fluency in either language
- We will be using a very specific (small) set of R functions
- In lab, I will not be opening … ~~**SPSS**~~

MplusAutomation Map