

# From Measurement Model to Structural Model

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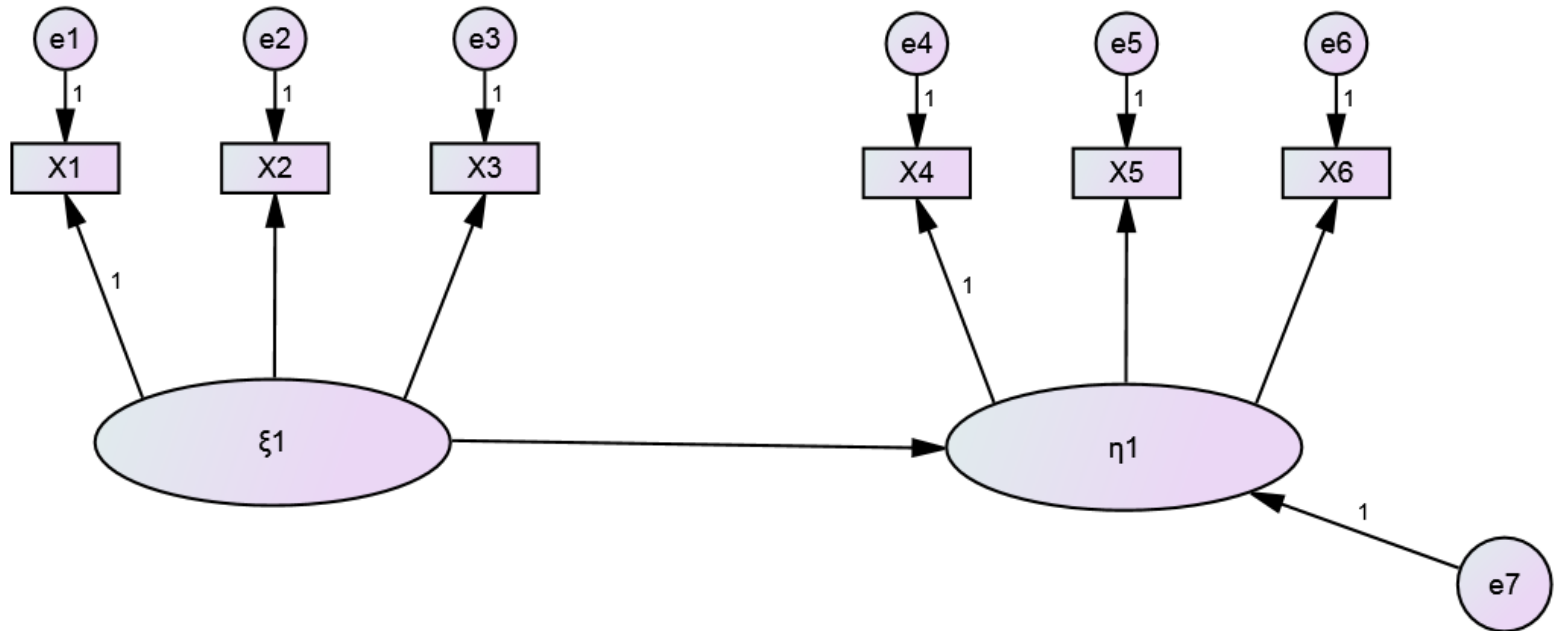
# Plan

- Introducing 'structural' equations
- Examples of structural models
- Alternative models
- Non-recursive models & instrumental variables
- Mediation models
- Direct, indirect & total effects

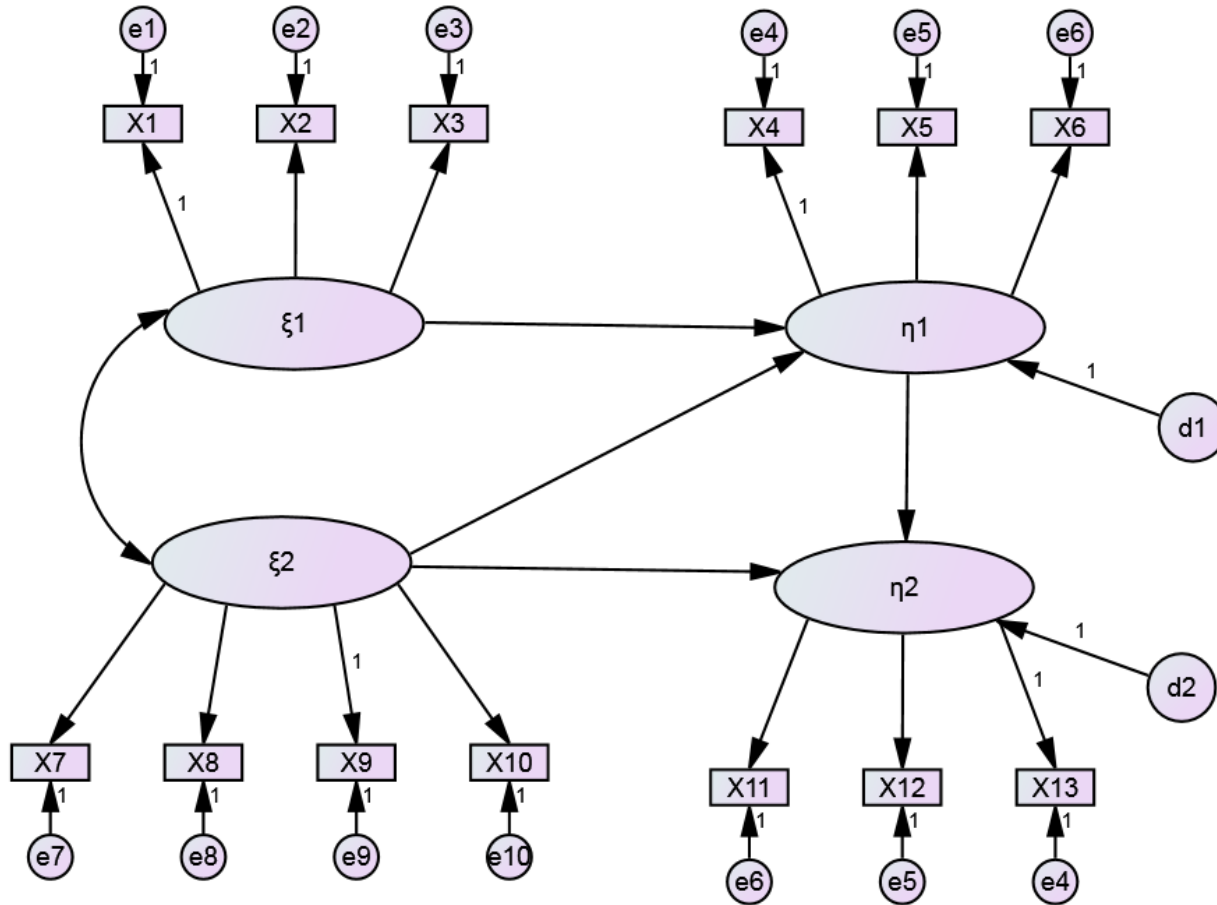
# Steps in Structural Equation Models

- 1. Establish satisfactory measurement model for key concepts using latent variables
- 2. Fit regression paths between concepts
  - These are the ‘structural equations’ which specify how concepts are related to each other
- Test hypotheses on model parameters
- Assess model fit

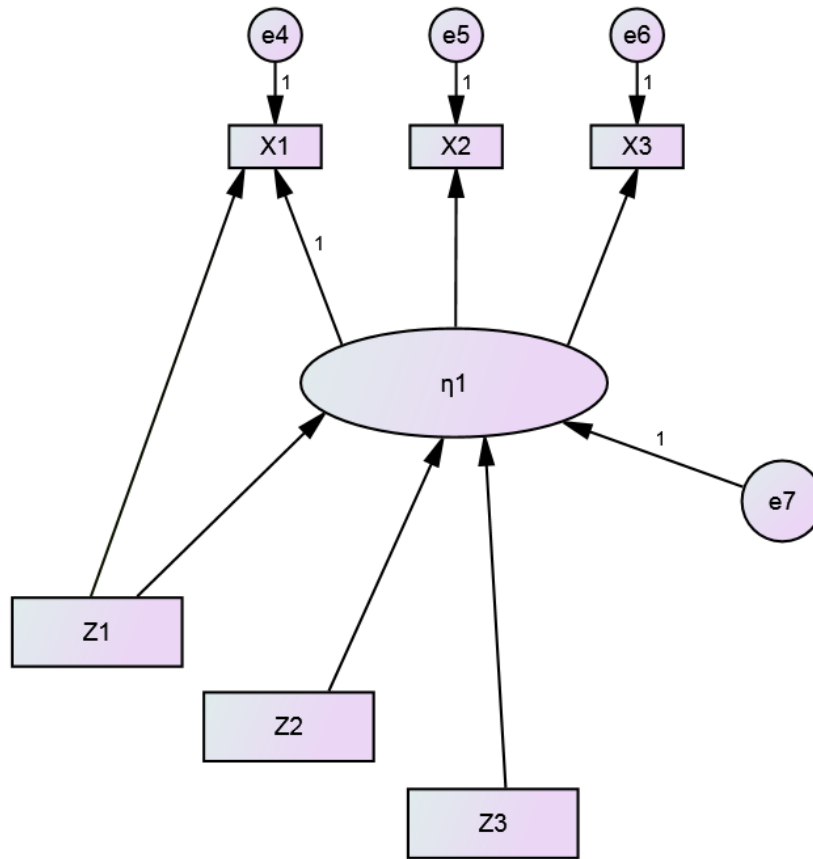
# A Simple SEM



# More complex SEM



# Multiple Indicators Multiple Causes (MIMIC) Model



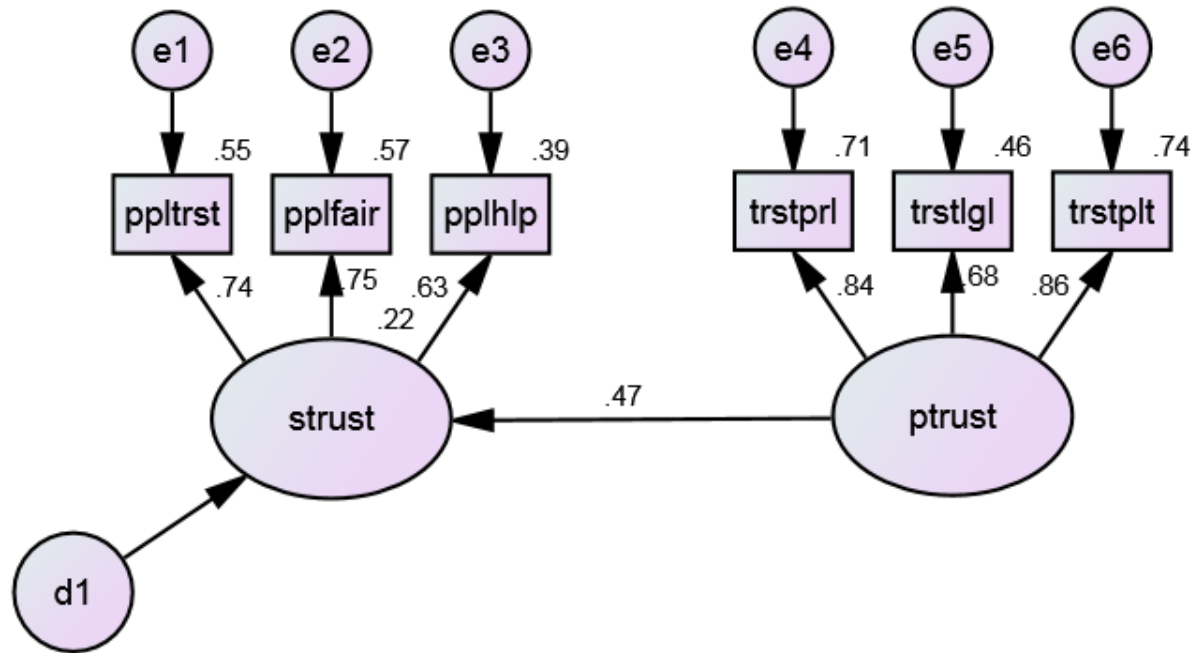
Latent endogenous

Observed exogenous

# Alternative Models

- If your model has good fit it is tempting to conclude it is the 'true' model
- This temptation should be avoided
- Many alternative generating mechanisms could have produced the observed data
- An example...

# Political trust causes social trust

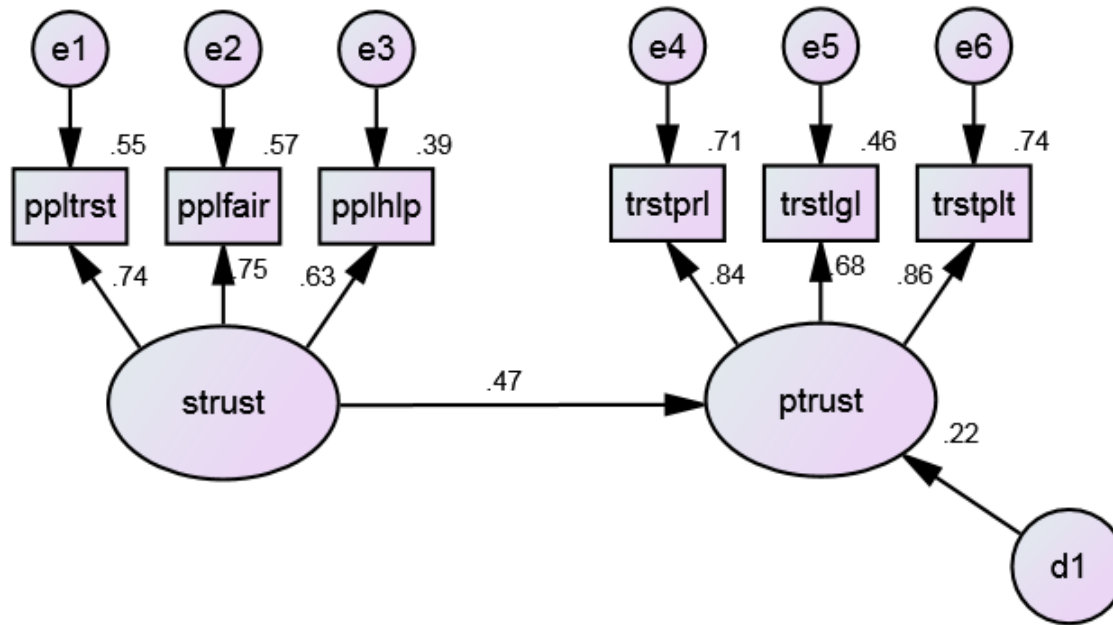


Chi2 35.889; DF 8; p=.000; RMSEA =.035; CFI .995;

Data: European Social Survey 2004, GB only



# Social trust causes political trust



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