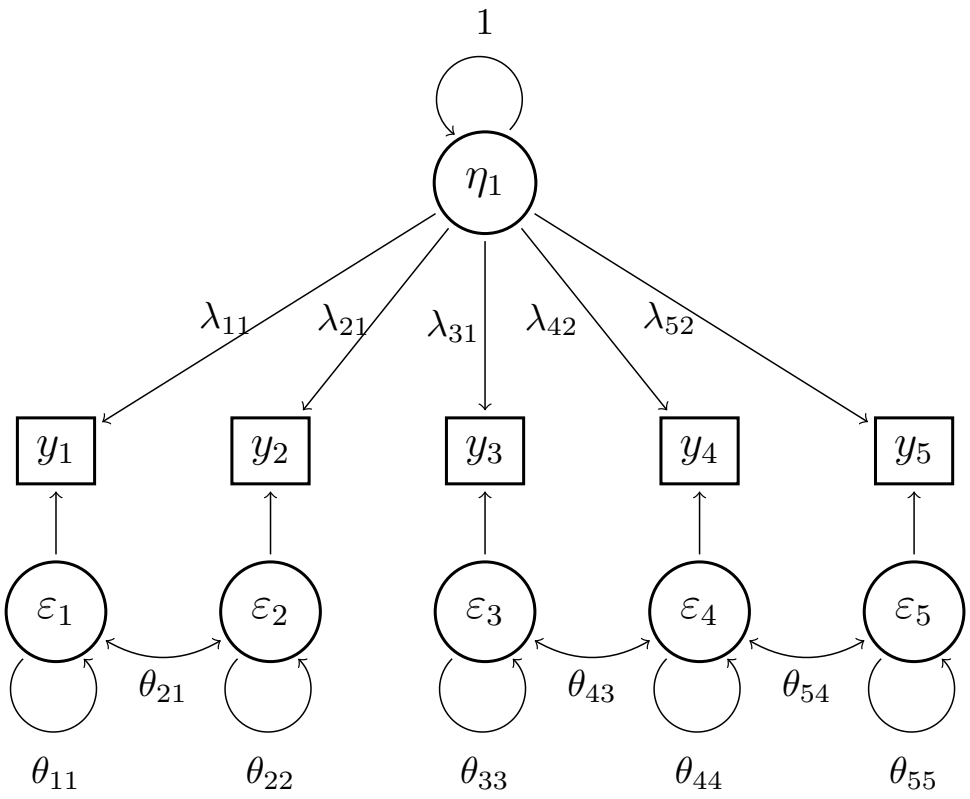
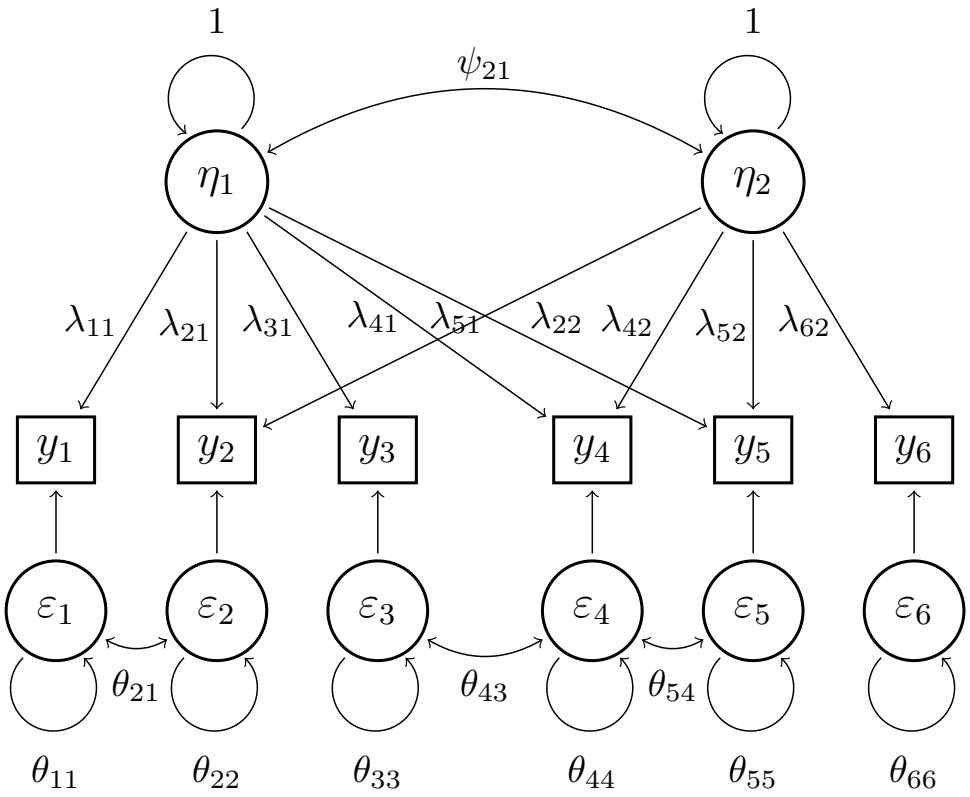
Consider the following two path models. For each, answer the following questions:

- How many observations does this model account for?
- How many parameters are in the model?
- How many degrees of freedom does this model have?
- Is the model identified? Why/why not?




1
1
ψ_{21}
η_1
η_2
λ_{11}
λ_{21}
λ_{31}
λ_{41}
λ_{51}
λ_{22}
λ_{42}
λ_{52}
λ_{62}
y_1
y_2
y_3
y_4
y_5
y_6
ε_1
ε_2
ε_3
ε_4
ε_5
ε_6
θ_{21}
θ_{43}
θ_{54}
θ_{11}
θ_{22}
θ_{33}
θ_{44}
θ_{55}
θ_{66}

For this exercise, we'll use the `AMAS.csv` file from the last problem session.

1. Draw a path model based on the factor structure you extracted in the last problem session. There should be 2 factors with no cross-loadings.
2. Perform a confirmatory factor analysis for this model in JASP. Write down your estimates for (1) the factor loadings, (2) the factor covariances, and (3) the residual variances.
3. Report and interpret two measures of model fit to assess how well your model explains the observed data: (1) the χ^2 test, and (2) the RMSEA.