

Method Factors

Prof. Dr. Rolf Steyer

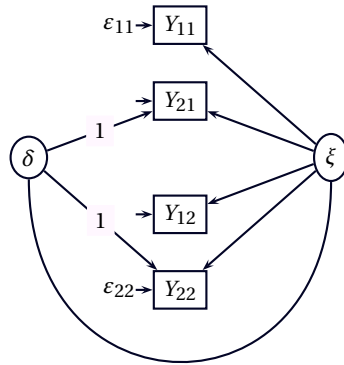
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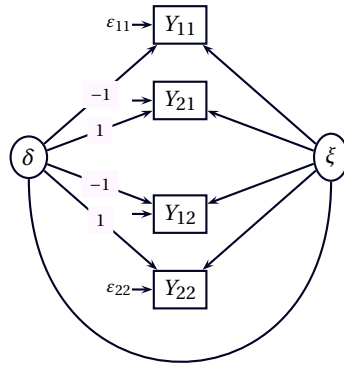
Singletrait Model With Method Factor, Reference Method



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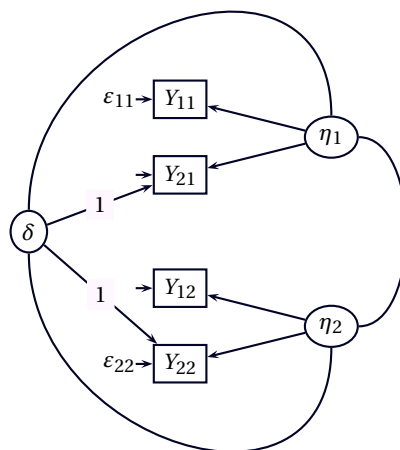
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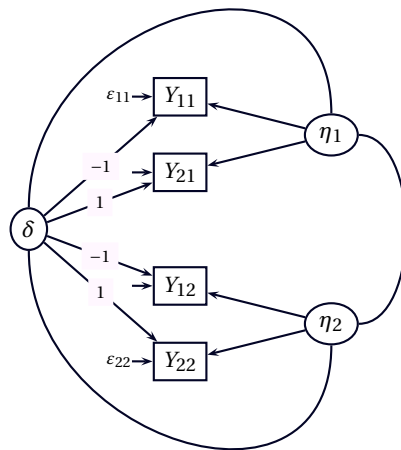
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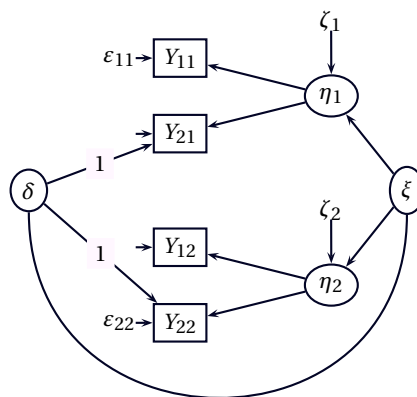
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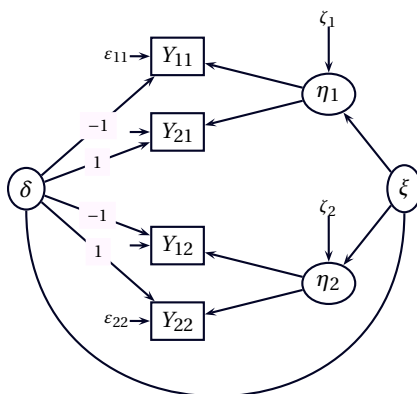
Multistate-Singletrait Model With Method Factor, Reference Method



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Method Factor Derivation

Proof of:

$$\tau_{11} - \eta_1 = -\delta_1$$

$$\eta_1 = \frac{\tau_{11} + \tau_{21}}{2}$$

$$2\eta_1 = \tau_{11} + \tau_{21}$$

$$\eta_1 - \tau_{21} = \tau_{11} - \eta_1$$

$$-\delta_1 = \tau_{11} - \eta_1$$

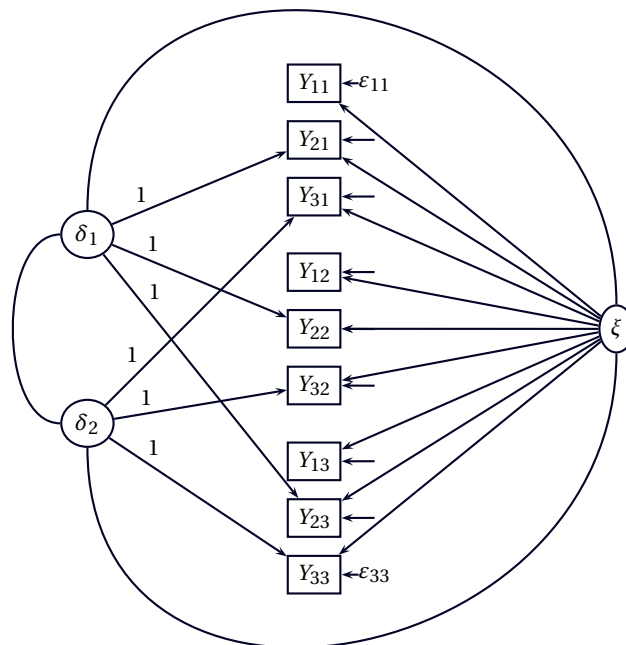
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Models With Three Occasions of Measurement

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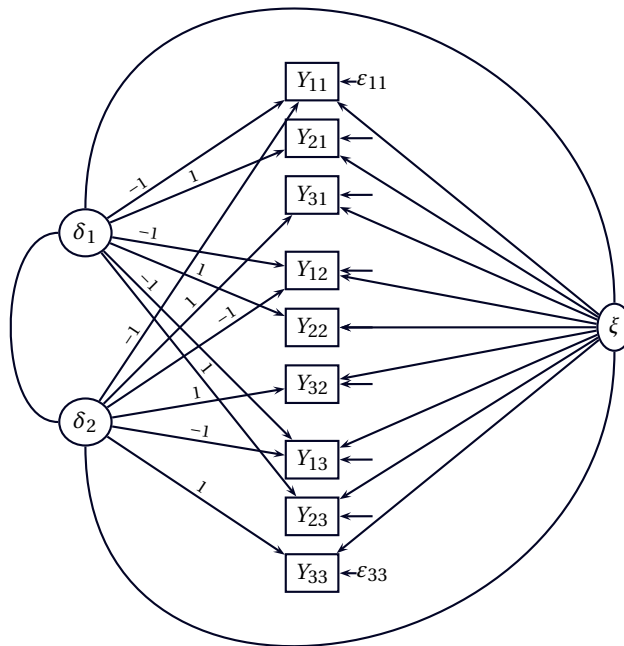
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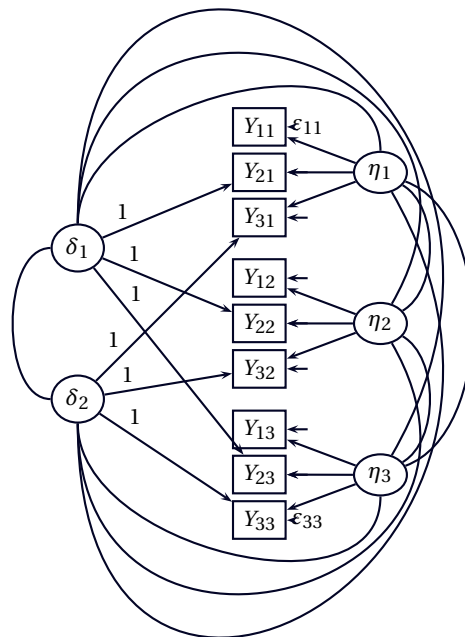
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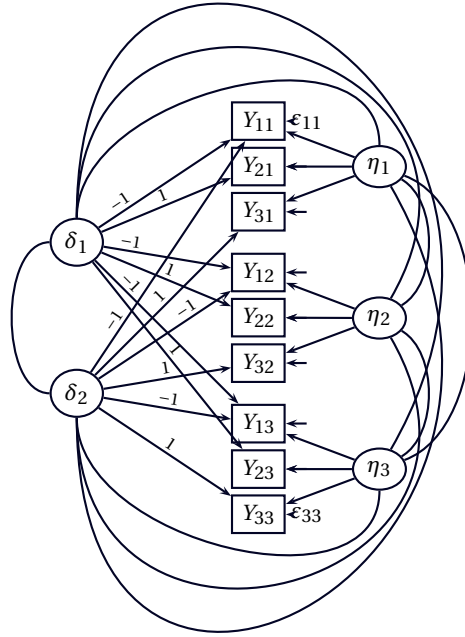
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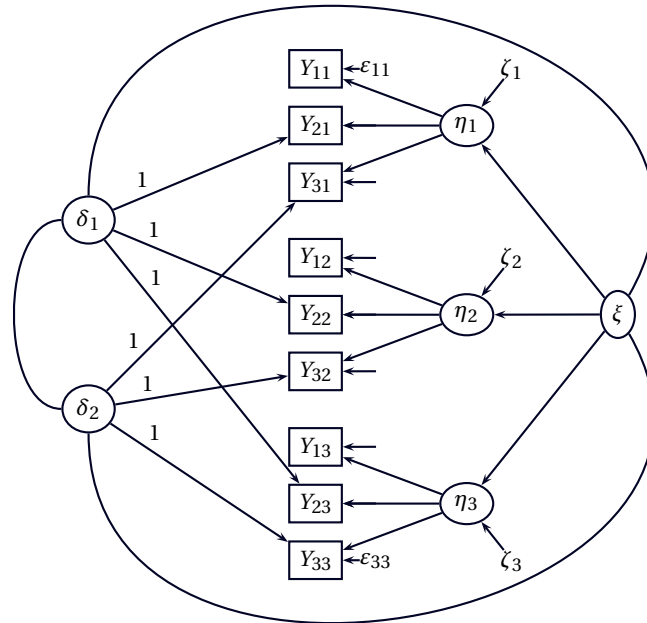
Multistate Model With Method Factors, With Reference Method



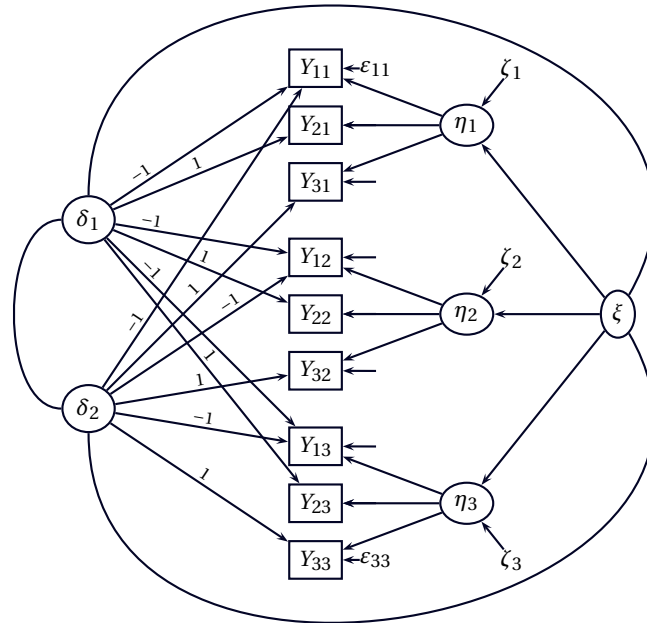
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Singlestate-Multitrait Model With Method Factors With Reference Method



Singlestate-Multitrait Model With Method Factors, no Reference Method



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Derivation

Proof of:

$$\tau_{11} - \eta_1 = -\delta_1 - \delta_2$$

$$\eta_1 = \frac{\tau_{11} + \tau_{21} + \tau_{31}}{3}$$

$$3\eta_1 = \tau_{11} + \tau_{21} + \tau_{31}$$

$$2\eta_1 - \tau_{21} - \tau_{31} = \tau_{11} - \eta_1$$

$$-(\tau_{21} - \eta_1) - (\tau_{31} - \eta_1) = \tau_{11} - \eta_1$$

$$-\delta_1 - \delta_2 = \tau_{11} - \eta_1$$

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