# ILLUSTRATED PATH ANALYSIS FOR COX 301 GENIUSES
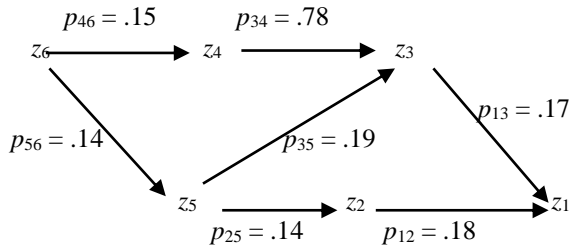
Correlation Matrix

| $z$ Variable | 6 | 5 | 4 | 3 | 2 | 1 |
|---|---|---|---|---|---|---|
| 6. Father's status | | | .14 | .15 | .14 | .02 | .03 |
| 5. Educational level | .14* | | .02 | .21 | .14 | .06 |
| 4. IQ1 | .15* | .23* | | .78 | .00 | .13 |
| 3. IQ2 | .10* | .37* | .82* | | .03 | .18 |
| 2. Versatility | .08 | .14* | .29* | .30* | | .18 |
| 1. Eminence | .05 | .06 | .18* | .23* | .23* | |

Raw correlations below the empty diagonal (*$p <.05$); reconstructed correlations above the diagonal.


Tentative Model with Estimated Parameters (using multiple regression):




Estimation Equations (by tracing rule):

$r_{12} = p_{12} + p_{25}p_{35}p_{13} + p_{25}p_{56}p_{46}p_{34}p_{13} = .18$

$r_{13} = p_{13} + p_{34}p_{46}p_{56}p_{25}p_{12} + p_{35}p_{25}p_{12} = .18$

$r_{14} = p_{34}p_{13} + p_{46}p_{56}p_{35}p_{13} + p_{46}p_{56}p_{25}p_{12} = .13$

$r_{15} = p_{35}p_{13} + p_{25}p_{12} + p_{56}p_{46}p_{34}p_{13} = .06$

$r_{16} = p_{46}p_{34}p_{13} + p_{56}p_{35}p_{13} + p_{56}p_{25}p_{12} = .03$

$r_{23} = p_{35}p_{25} + p_{34}p_{46}p_{56}p_{25} = .03$

$r_{24} = p_{46}p_{56}p_{25} = .00$

$r_{25} = p_{25} = .14$

$r_{26} = p_{56}p_{25} = .02$

$r_{34} = p_{34} + p_{46}p_{56}p_{35} = .78$      $r_{45} = p_{46}p_{56} = .02$

$r_{35} = p_{35} + p_{56}p_{46}p_{34} = .21$      $r_{46} = p_{46} = .15$

$r_{36} = p_{46}p_{34} + p_{56}p_{35} = .14$      $r_{56} = p_{56} = .14$