Latent Growth Curve Example

```
  title:  Latent Growth Curve Model Example 1;

  data:  file=c:\jason\mplus\semclass\growth1.dat;  format=3f10.6;
     listwise=on;


  variable:  names = emo1 emo2 emo3 ;
             missing=blank;

  analysis:  type=meanstructure;

  !model: intercep by emo1@1 emo2@1 emo3@1;
   !      slope by emo1@0 emo2@1 emo3@2;
    !    [emo1-emo3@0];
     !   [intercep slope];

  ! Mplus has shortcut syntax for growth models, the following
  !  statements produce the same results as the above statements;

  model:  i s | emo1@0 emo2@1 emo3@2;

  output:  stdyx ;
  plot:  type=plot1;
     series=emo1(0) emo2(1) emo3(2);


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SUMMARY OF ANALYSIS

Number of groups                                                 1
Number of observations                                         109

Number of dependent variables                                    3
Number of independent variables                                  0
Number of continuous latent variables                            2

Observed dependent variables

  Continuous
   EMO1        EMO2        EMO3

Continuous latent variables
   INTERCEP    SLOPE


Estimator                                                       ML


TESTS OF MODEL FIT
Chi-Square Test of Model Fit
          Value                             0.439
          Degrees of Freedom                    1
          P-Value                           0.5077

Chi-Square Test of Model Fit for the Baseline Model
          Value                            36.299
          Degrees of Freedom                    3
          P-Value                           0.0000

CFI/TLI
          CFI                               1.000
          TLI                               1.051


RMSEA (Root Mean Square Error Of Approximation)
          Estimate                          0.000
          90 Percent C.I.                   0.000  0.220
          Probability RMSEA <= .05          0.562

SRMR (Standardized Root Mean Square Residual)
          Value                             0.017
```

MODEL RESULTS

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
INTERCEP BY				
EMO1	1.000	0.000	999.000	999.000
EMO2	1.000	0.000	999.000	999.000
EMO3	1.000	0.000	999.000	999.000
SLOPE BY				
EMO1	0.000	0.000	999.000	999.000
EMO2	1.000	0.000	999.000	999.000
EMO3	2.000	0.000	999.000	999.000
SLOPE WITH				
INTERCEP	-0.062	0.032	-1.909	0.056
Means				
INTERCEP	0.394	0.048	8.296	0.000
SLOPE	-0.021	0.030	-0.715	0.474
Intercepts				
EMO1	0.000	0.000	999.000	999.000
EMO2	0.000	0.000	999.000	999.000
EMO3	0.000	0.000	999.000	999.000
Variances				
INTERCEP	0.190	0.056	3.405	0.001
SLOPE	0.035	0.025	1.411	0.158
Residual Variances				
EMO1	0.059	0.050	1.174	0.240
EMO2	0.205	0.034	6.056	0.000
EMO3	0.202	0.057	3.557	0.000

STANDARDIZED MODEL RESULTS
STDYX Standardization

	Estimate	S.E.	Est./S.E.	Two-Tailed P-Value
INTERCEP BY				
EMO1	0.874	0.114	7.673	0.000
EMO2	0.786	0.097	8.095	0.000
EMO3	0.815	0.136	6.011	0.000
SLOPE BY				
EMO1	0.000	0.000	999.000	999.000
EMO2	0.339	0.114	2.990	0.003
EMO3	0.703	0.259	2.717	0.007
SLOPE WITH				
INTERCEP	-0.754	0.149	-5.080	0.000
Means				
INTERCEP	0.905	0.168	5.398	0.000
SLOPE	-0.113	0.163	-0.695	0.487
Intercepts				
EMO1	0.000	0.000	999.000	999.000
EMO2	0.000	0.000	999.000	999.000
EMO3	0.000	0.000	999.000	999.000
Variances				
INTERCEP	1.000	0.000	999.000	999.000
SLOPE	1.000	0.000	999.000	999.000
Residual Variances				
EMO1	0.237	0.199	1.189	0.234
EMO2	0.669	0.063	10.608	0.000
EMO3	0.706	0.174	4.063	0.000

Plot output
10 Randomly Selected Curves