

Calculating probabilities for nominal latent class indicators

I have calculated the estimates for nominal indicators using the method described in chapter 14. However, is there any way to also get standard errors, as is provided for categorical indicators in probability scale?

Thanks.

Bengt O. Muthen posted on Monday, October 22, 2018 - 5:56 pm

If you express them in Model Constraint, you also get their SEs.

Thanks. Is there an example of the syntax to do this somewhere? In particular, I'm not sure how to reference the estimates for the means for each combination of class/nominal category in the MODEL CONSTRAINT section.

Bengt O. Muthen posted on Tuesday, October 23, 2018 - 11:14 am

The V8 UG pages 555-557 show an example with 4 nominal categories and in the first step only intercepts are used which corresponds to your situation. These are the intercepts you have for one of your observed nominal variables in one class. A nominal DV's intercepts are referred to as [y#1], [y#2], etc. Label these in the Model command and generalize from there in Model Constraint.

Thanks very much.

Just in case anyone in the future needs a more complete example (assuming 3 latent classes, and a nominal indicator variable y with 4 categories):

MODEL:

%c#1%

[y#1-y#3] (c1y1-c1y3);

%c#2%

[y#1-y#3] (c2y1-c2y3);

%c#3%

[y#1-y#3] (c3y1-c3y3);

MODEL CONSTRAINT:

NEW(c1yprob1-c1yprob4 c2yprob1-c2yprob4 c3yprob1-c3yprob4 c1y4 c2y4 c3y4);

DO(1,4) c#y4 = 0;

DO(\$,1,4) DO (% ,1,3) c%yprob\$ = exp(c%y\$) /
(exp(c%y1) + exp(c%y2) + exp(c%y3) + exp(c%y4));