

Syntax

```
options
    maxthreads=8;
startvalues
    sets=1000 iterations=250 seed=0 tolerance=1e-005;
missing
    includeall;
output
    parameters=effect betaopts=wl standarderrors estimatedvalues=regression;
algorithm
    emiterations=10000 nriterations=0;
bayes
    categorical=10 variances=10 latent=10 poisson=10;
quadrature
    nodes=10;
variables
    dependent  discr1 continuous, discr2 continuous, discr3 continuous, discr4
continuous, discr5 continuous, c50;
    groupid sid;
    independent trial2, gender, condpr1, fsm, schsize, schfsm, schcond;
    latent i continuous, s continuous, uC continuous group, uy continuous
group, C nominal 2;
equations
    uC;
    uy;
    uC <-> uy;
    i|C;
    s|C;
    i <-> s|C;
    discr1 <- (1) i + (0) s;
    discr2 <- (1) i + (1) s;
    discr3 <- (1) i + (2) s;
    discr4 <- (1) i + (3) s;
    discr5 <- (1) i + (4) s;
    discr1|C;
    discr2|C;
    discr3|C;
    discr4|C;
    discr5|C;
    C <- 1 + condpr1 + fsm + schsize + schfsm + schcond + (1) uC;
    i <- 1|C + (b1) trial2|C + gender|C + (1) uy;
    s <- 1|C + (b2) trial2|C + gender|C;
    c50 <- (w~wei) C;
    b1[1]=0;
    b2[1]=0;
    w = {1 0 0 1};
```

Standard Output for Latent GOLD 5.1 and 6.0

* Statistics *

Log-likelihood = -12154.2194
 Log-prior = -85.0368
 Log-posterior = -12239.2562
 Number of parameters = 35
 Activated constraints= 0
 Number of groups = 77.00
 Number of cases = 3084.00
 BIC (Log-lik.) = 24589.6281
 AIC (Log-lik.) = 24378.4388
 AIC3 (Log-lik.) = 24413.4388
 CAIC (Log-lik.) = 24624.6281
 SABIC (Log-lik.) = 24478.4190
 BIC(LL,Ngrougs) = 24460.4719
 CAIC(LL,Ngrougs) = 24495.4719
 SABIC(LLL,Ngrougs) = 24350.1375

CH = 6.2491

Class. log-lik. = -12439.1214
 Entropy = 284.9020
 CLC = 24878.2427
 AWE = 25545.6215
 ICL-BIC = 25159.4321

		uC	uy	i	s	C
Class. errors	=	0.0000	0.0000	0.0000	0.0000	0.0362
Average entropy	=	0.0000	0.0000	0.0000	0.0000	0.0924
Reduction errors	=	1.0000	1.0000	1.0000	1.0000	0.8729
Entropy R-squared	=	1.0000	1.0000	1.0000	1.0000	0.8454
Standard R-squared	=	1.0000	0.9526	0.7542	0.3433	0.8673

Classification Table for C

		Modal		
True		1	2	Total
	1	1946.6	37.3	1983.9
	2	74.4	1025.7	1100.1
	Total	2021.0	1063.0	3084.0

Classification Table for C

		Proportional		
True		1	2	Total
	1	1900.5	83.4	1983.9
	2	83.4	1016.7	1100.1
	Total	1983.9	1100.1	3084.0

		uC	uy	i	s	C
Based on Covariates						
Class. errors	=	0.0000	0.0000	0.0000	0.0000	0.2483
Entropy	=	0.0000	0.0000	0.0000	0.0000	0.5285
Reduction errors	=	1.0000	1.0000	1.0000	1.0000	0.1288
Entropy R-squared	=	1.0000	1.0000	1.0000	1.0000	0.1156
Standard R-squared	=	0.0000	0.0000	0.6347	0.1509	0.1431

Classification Table Based on Covariates for C

True	Modal		Total
	1	2	
1	2085.1	119.9	2205.0
2	645.9	233.1	879.0
Total	2731.0	353.0	3084.0

Seed random numbers = 97224

* Parameters estimates *

Model for i

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	10	i <- 1 C(1)	45.9055	4.4e-460				1.3644		0.0297		
2,1	11	i <- 1 C(2)	36.2547	8.4e-288	2636.4988	2	3.1e-573	277.7390	1	2.3e-62		0.0673
1,1	-	i <- trial2 C(1)						0.0000		-----		
2,1	12	i <- trial2 C(2)	-9.2148	3.1e-20	84.9120	1	3.1e-20			-0.7446		0.0808
1,1	13	i <- gender C(1)	8.7808	1.6e-18				0.2106		0.0240		
2,1	14	i <- gender C(2)	7.3637	1.8e-13	130.3280	2	5.0e-29	8.2235	1	0.0041		0.0502
1,1	-	i <- uy						1.0000		-----		

Model for s

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	15	s <- 1 C(1)	4.5900	4.4e-6				0.0262		0.0057		
2,1	16	s <- 1 C(2)	-1.1661	0.24	21.6557	2	2.0e-5	5.6969	1	0.017		0.0189
1,1	-	s <- trial2 C(1)						0.0000		-----		
2,1	17	s <- trial2 C(2)	-0.1374	0.89	0.0189	1	0.89			-0.0025		0.0180
1,1	18	s <- gender C(1)	3.9098	9.2e-5				0.0320		0.0082		
2,1	19	s <- gender C(2)	2.6469	0.0082	23.6189	2	7.4e-6	0.2815	1	0.60		0.0157

Model for C

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	4	C(1) <- 1	11.4432	2.5e-30				2.1737		0.1900		
-,-	-	C(2) <- 1	-11.4432	2.5e-30	130.9468	1	2.5e-30	-2.1737		0.1900		
1,1	5	C(1) <- condpr1						-0.4760		0.0314		

-15.1644	6.1e-52								
- , -	-	C(2)	<-	condpr1				0.4760	0.0314
15.1644	6.1e-52			229.9594	1	6.1e-52			
1,1	6	C(1)	<-	fsm				-0.2461	0.0895
-2.7493	0.0060								
- , -	-	C(2)	<-	fsm				0.2461	0.0895
2.7493	0.0060			7.5585	1	0.0060			
1,1	7	C(1)	<-	schsize				0.0021	0.0003
7.5352	4.9e-14								
- , -	-	C(2)	<-	schsize				-0.0021	0.0003
-7.5352	4.9e-14			56.7794	1	4.9e-14			
1,1	8	C(1)	<-	schfsm				0.0004	0.0034
0.1121	0.91								
- , -	-	C(2)	<-	schfsm				-0.0004	0.0034
-0.1121	0.91			0.0126	1	0.91			
1,1	9	C(1)	<-	schcond				-0.8856	0.0924
-9.5880	9.0e-22								
- , -	-	C(2)	<-	schcond				0.8856	0.0924
9.5880	9.0e-22			91.9292	1	9.0e-22			
1,1	-	C(1)	<-	uC				1.0000	-----
-----	-----								
- , -	-	C(2)	<-	uC				-1.0000	-----
-----	-----								

Model for disr1

index	inte	term					coeff	s.e.
z-value	p	Wald(0)	df	p	Wald(=)	df	p	
1,1	-	disr1 <- i					1.0000	-----
-----	-----	-----						
1,1	-	disr1 <- s					0.0000	-----
-----	-----	-----						

Model for disr2

index	inte	term					coeff	s.e.
z-value	p	Wald(0)	df	p	Wald(=)	df	p	
1,1	-	disr2 <- i					1.0000	-----
-----	-----							
1,1	-	disr2 <- s					1.0000	-----
-----	-----							

Model for disr3

index	inte	term					coeff	s.e.
z-value	p	Wald(0)	df	p	Wald(=)	df	p	
1,1	-	disr3 <- i					1.0000	-----
1,1	-	disr3 <- s					2.0000	-----

Model for disr4

index	inte	term						coeff	s.e.
	z-value	p	Wald(0)	df	p	Wald(=)	df	p	
1,1	-	disr4 <- i						1.0000	-----
-----	-----	-----							
1,1	-	disr4 <- s						3.0000	-----

Model for disr5

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	-	disr5 <- i								1.0000		-----
1,1	-	disr5 <- s								4.0000		-----

Model for c50

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	-	c50(1) <- C(1)								1.0000		-----
1,2	-	c50(2) <- C(1)								0.0000		-----
1,3	-	c50(1) <- C(2)								0.0000		-----
1,4	-	c50(2) <- C(2)								1.0000		-----

Variances

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	1	uC (chol)	16.2227	3.5e-59	263.1755	1	3.5e-59			2.1832		0.1346
1,1	2	uy (chol)	7.0876	1.4e-12	50.2344	1	1.4e-12			0.1690		0.0238
1,1	25	i C(1)	16.7318	7.7e-63						0.1625		0.0097
2,1	33	i C(2)	11.1467	7.4e-29	401.0951	2	8.0e-88	29.3544	1	0.3317		0.0298
1,1	27	s C(1)	6.1822	6.3e-10						6.0e-8		0.0012
2,1	35	s C(2)	2.7815	0.0054	49.1053	2	2.2e-11	0.1489	1	0.0085		0.0030
1,1	20	disr1 C(1)	17.1715	4.3e-66						0.1384		0.0081
2,1	28	disr1 C(2)	15.5725	1.1e-54	549.0499	2	6.0e-120	104.6049	1	0.4417		0.0284
1,1	21	disr2 C(1)	21.3372	5.1e-101						1.5e-24		0.0069
2,1	29	disr2 C(2)	16.2528	2.1e-59	744.6548	2	2.0e-162	66.0390	1	0.1469		0.0195
1,1	22	disr3 C(1)	20.1175	5.2e-90						0.3168		4.4e-16
2,1	30	disr3 C(2)	17.7162	3.1e-70	739.8026	2	2.3e-161	148.7300	1	0.1374		0.0068
1,1	23	disr4 C(1)	20.3016	1.2e-91						0.4814		0.0272
2,1	31	disr4 C(2)	14.7978	1.5e-49	701.3741	2	5.0e-153	23.8648	1	0.2012		0.0099
1,1	24	disr5 C(1)								0.3228		0.0218
										1.0e-6		0.0144

14.8983	3.4e-50							
2,1	32	disr5 C(2)				0.4315		0.0337
12.8070	1.5e-37	479.2677	2	8.5e-105	30.4850	1	3.4e-8	

Covariances / Associations

index	inte	term	z-value	p	Wald(0)	df	p	Wald(=)	df	coeff	p	s.e.
1,1	3	uC <-> uy (chol)	3.1932	0.0014	10.1967	1	0.0014			0.0971		0.0304
1,1	26	i <-> s C(1)	-0.4496	0.65						-0.0012		0.0027
2,1	34	i <-> s C(2)	-0.1264	0.90	0.2164	2	0.90	0.0009	1	-0.0010	0.98	0.0078

Variances / Covariances continuous latent

z-value	term	coeff	s.e.
	uC	4.7665	0.5876
8.1113	uC <-> uy	0.2119	0.0685
3.0960	uy	0.0380	0.0059
6.3987	i C(1)	0.1625	0.0097
16.7318	i <-> s C(1)	-0.0012	0.0027
-0.4496	s C(1)	0.0072	0.0012
6.1822	i C(2)	0.3317	0.0298
11.1467	i <-> s C(2)	-0.0010	0.0078
-0.1264	s C(2)	0.0085	0.0030
2.7815			

* Posthoc Tests *

Model for i

i <- 1 C				
	C	1	2	277.7390
			Wald	df
				1
				2.3e-62

i <- trial2 C				
	C	1	2	84.9120
			Wald	df
				1
				3.1e-20

i <- gender C				
	C	1	2	8.2235
			Wald	df
				1
				0.0041

Model for s

```
s <- 1 | C
```

			Wald	df	p
C	1	2	5.6969	1	0.017

```
s <- trial2 | C
```

			Wald	df	p
C	1	2	0.0189	1	0.89

```
s <- gender | C
```

			Wald	df	p
C	1	2	0.2815	1	0.60

Model for C

```
C <- 1
```

			Wald	df	p
C	1	2	130.9468	1	2.5e-30

```
C <- condpr1
```

			Wald	df	p
C	1	2	229.9594	1	6.1e-52

```
C <- fsm
```

			Wald	df	p
C	1	2	7.5585	1	0.0060

```
C <- schsize
```

			Wald	df	p
C	1	2	56.7794	1	4.9e-14

```
C <- schfsm
```

			Wald	df	p
C	1	2	0.0126	1	0.91

```
C <- schcond
```

			Wald	df	p
C	1	2	91.9292	1	9.0e-22

```
C <- uC
```

			Wald	df	p
C	1	2	0.0000	0	1.#QNAN

Model for c50

```
c50 <- C
```

			Wald	df	p
C	1	2	0.0000	0	1.#QNAN

Variances

```
i | C
```

			Wald	df	p
C	1	2	29.3544	1	6.0e-8

s	C			Wald	df	p
	C	1	2	0.1489	1	0.70

disr1	C			Wald	df	p
	C	1	2	104.6049	1	1.5e-24

disr2	C			Wald	df	p
	C	1	2	66.0390	1	4.4e-16

disr3	C			Wald	df	p
	C	1	2	148.7300	1	3.3e-34

disr4	C			Wald	df	p
	C	1	2	23.8648	1	1.0e-6

disr5	C			Wald	df	p
	C	1	2	30.4850	1	3.4e-8

Covariances / Associations

is	C			Wald	df	p
	C	1	2	0.0009	1	0.98

* Estimated values for dependent given joint classes + overall + observed *

2	2	1	1.6126
2	2	2	1.9693
2	2	overall	1.7142
2	2	observed	1.8847
2	1	1	1.4019
2	1	2	1.5995
2	1	overall	1.4583
2	1	observed	1.5332
1	2	1	1.6126
1	2	2	2.7138
1	2	overall	1.9265
1	2	observed	1.7925
1	1	1	1.4019
1	1	2	2.3441
1	1	overall	1.6705
1	1	observed	1.3921
2	2	1	1.6708
2	2	2	1.9864
2	2	overall	1.7607

2	2	observed	1.9336
2	1	1	1.4281
2	1	2	1.5750
2	1	overall	1.4700
2	1	observed	1.5922
1	2	1	1.6708
1	2	2	2.7334
1	2	overall	1.9737
1	2	observed	1.8155
1	1	1	1.4281
1	1	2	2.3221
1	1	overall	1.6829
1	1	observed	1.4326

2	2	1	1.7290
2	2	2	2.0035
2	2	overall	1.8072
2	2	observed	1.9354
2	1	1	1.4543
2	1	2	1.5505
2	1	overall	1.4818
2	1	observed	1.5400
1	2	1	1.7290
1	2	2	2.7530
1	2	overall	2.0208
1	2	observed	1.8116
1	1	1	1.4543
1	1	2	2.3000
1	1	overall	1.6954
1	1	observed	1.4461

2	2	1	1.7872
2	2	2	2.0207
2	2	overall	1.8537
2	2	observed	1.9796
2	1	1	1.4806
2	1	2	1.5260
2	1	overall	1.4935
2	1	observed	1.5067
1	2	1	1.7872
1	2	2	2.7726
1	2	overall	2.0680
1	2	observed	1.8827
1	1	1	1.4806
1	1	2	2.2780
1	1	overall	1.7078
1	1	observed	1.4938

2	2	1	1.8454
2	2	2	2.0378
2	2	overall	1.9002
2	2	observed	1.9679
2	1	1	1.5068
2	1	2	1.5015

2	1	overall	1.5053
2	1	observed	1.4862
1	2	1	1.8454
1	2	2	2.7922
1	2	overall	2.1152
1	2	observed	1.9478
1	1	1	1.5068
1	1	2	2.2560
1	1	overall	1.7203
1	1	observed	1.4913
1		1.0000	0.0000 0.0000
2		0.0000	1.0000 1.0000
overall		0.7150	0.2850 0.2850
observed		0.5116	0.4884 0.4884

* Factor analysis output *

Factor correlation matrix

	uC	uy	i	s	C
uC	1.0000	0.0000	0.0000	0.0000	0.0000
uy	0.0000	1.0000	0.0000	0.0000	0.0000
i	0.0000	0.0000	1.0000	0.0000	0.0000
s	0.0000	0.0000	0.0000	1.0000	0.0000
C	0.0000	0.0000	0.0000	0.0000	1.0000

Pattern matrix

	uC	uy	i	s	C
disr1	-0.0990	0.1445	0.8553	-0.0000	0.2497
disr2	-0.0680	0.1110	0.6569	0.6569	0.1792
disr3	-0.0394	0.0730	0.4319	0.8639	0.1096
disr4	-0.0246	0.0526	0.3111	0.9332	0.0730
disr5	-0.0160	0.0405	0.2399	0.9596	0.0517
c50	-0.6117	-0.0000	-0.0000	-0.0000	1.0000

Error correlation matrix

	disr1	disr2	disr3	disr4	disr5	c50
disr1	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
disr2	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
disr3	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
disr4	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
disr5	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
c50	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Structure matrix

	uC	uy	i	s	C
disr1	-0.0990	0.1445	0.8553	0.0000	0.2497
disr2	-0.0680	0.1110	0.6569	0.6569	0.1792
disr3	-0.0394	0.0730	0.4319	0.8639	0.1096
disr4	-0.0246	0.0526	0.3111	0.9332	0.0730
disr5	-0.0160	0.0405	0.2399	0.9596	0.0517
c50	-0.6117	-0.0000	0.0000	0.0000	1.0000

R-squared contributions

	uC	uy	i	s	C	FA	LCFA
disr1	0.0098	0.0209	0.7316	-0.0000	0.0624	0.8246	0.8195
disr2	0.0046	0.0123	0.4316	0.4316	0.0321	0.9122	0.9104
disr3	0.0016	0.0053	0.1866	0.7463	0.0120	0.9518	0.9514
disr4	0.0006	0.0028	0.0968	0.8708	0.0053	0.9763	0.9763
disr5	0.0003	0.0016	0.0576	0.9209	0.0027	0.9830	0.9832
c50	0.3742	0.0000	-0.0000	-0.0000	1.0000	1.3742	1.0000