```
GLM con_inc con_cor exp_inc exp_cor BY forward backward
  /WSFACTOR=group 2 Polynomial correctness 2 Polynomial
  /METHOD=SSTYPE(3)
  /EMMEANS=TABLES(OVERALL)
  /EMMEANS=TABLES(forward)
  /EMMEANS=TABLES(backward)
  /EMMEANS=TABLES(group)
  /EMMEANS=TABLES(correctness)
  /EMMEANS=TABLES(forward*backward)
  /EMMEANS=TABLES(forward*group)
  /EMMEANS=TABLES(forward*correctness)
  /EMMEANS=TABLES(backward*group)
  /EMMEANS=TABLES(backward*correctness)
  /EMMEANS=TABLES(group*correctness)
  /EMMEANS=TABLES(forward*backward*group)
  /EMMEANS=TABLES(forward*backward*correctness)
  /EMMEANS=TABLES(forward*group*correctness)
  /EMMEANS=TABLES(backward*group*correctness)
  /EMMEANS=TABLES(forward*backward*group*correctness)
  /PRINT=DESCRIPTIVE ETASQ
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=group correctness group*correctness
  /DESIGN=forward backward forward*backward.
```

General Linear Model

```
[DataSet0] /Users/Erin/Dropbox/debiasing judgments/data v 2 11 14.sav
```

Within-Subjects Factors

Measure:MEASURE_1

group	correctness	Dependent Variable
1	1	con_inc
	2	con_cor
2	1	exp_inc
	2	exp_cor

Between-Subjects Factors

		Value Label	N
forward	1.00	low	48
	2.00	high	48
backward	1.00	low	48
	2.00	high	48

Descriptive Statistics

	forward	backward	Mean	Std. Deviation	N
control incorrect recode	low	low	61.8062	6.91137	24
		high	67.1438	7.97514	24
		Total	64.4750	7.85964	48
	high	low	74.0104	6.34018	24
		high	85.1854	5.45337	24
		Total	79.5979	8.13074	48
	Total	low	67.9083	9.00413	48
		high	76.1646	11.34834	48
		Total	72.0365	11.00208	96
control correct record	low	low	57.3979	7.67050	24
		high	62.5146	8.64384	24
		Total	59.9563	8.48763	48
	high	low	72.2875	5.91711	24
		high	84.4875	6.88823	24
		Total	78.3875	8.85180	48
	Total	low	64.8427	10.12572	48
		high	73.5010	13.52969	48
		Total	69.1719	12.65809	96
exp incorrect recode	low	low	45.7983	10.09996	24
		high	50.9321	9.67420	24
		Total	48.3652	10.12166	48
	high	low	66.1600	6.59551	24
		high	77.3512	6.84009	24
		Total	71.7556	8.72700	48
	Total	low	55.9792	13.30645	48
		high	64.1417	15.71308	48
		Total	60.0604	15.05264	96
exp correct recode	low	low	40.1858	10.01223	24
		high	47.6167	10.40453	24
		Total	43.9013	10.77634	48
	high	low	63.2258	8.53824	24
		high	77.8917	9.77836	24
		Total	70.5588	11.72100	48
	Total	low	51.7058	14.84133	48
		high	62.7542	18.26980	48
		Total	57.2300	17.46273	96

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
group	Pillai's Trace	.917	1022.460[a]	1.000	92.000	.000	.917
	Wilks' Lambda	.083	1022.460[a]	1.000	92.000	.000	.917
	Hotelling's Trace	11.114	1022.460[a]	1.000	92.000	.000	.917
	Roy's Largest Root	11.114	1022.460[a]	1.000	92.000	.000	.917
group * forward	Pillai's Trace	.569	121.557[a]	1.000	92.000	.000	.569
	Wilks' Lambda	.431	121.557[a]	1.000	92.000	.000	.569
	Hotelling's Trace	1.321	121.557[a]	1.000	92.000	.000	.569
	Roy's Largest Root	1.321	121.557[a]	1.000	92.000	.000	.569
group * backward	Pillai's Trace	.025	2.356[a]	1.000	92.000	.128	.025
	Wilks' Lambda	.975	2.356[a]	1.000	92.000	.128	.025
	Hotelling's Trace	.026	2.356[a]	1.000	92.000	.128	.025
	Roy's Largest Root	.026	2.356[a]	1.000	92.000	.128	.025
group * forward * backward	Pillai's Trace	.000	.015[a]	1.000	92.000	.901	.000
	Wilks' Lambda	1.000	.015[a]	1.000	92.000	.901	.000
	Hotelling's Trace	.000	.015[a]	1.000	92.000	.901	.000
	Roy's Largest Root	.000	.015[a]	1.000	92.000	.901	.000
correctness	Pillai's Trace	.594	134.381[a]	1.000	92.000	.000	.594
	Wilks' Lambda	.406	134.381[a]	1.000	92.000	.000	.594
	Hotelling's Trace	1.461	134.381[a]	1.000	92.000	.000	.594
	Roy's Largest Root	1.461	134.381[a]	1.000	92.000	.000	.594
correctness * forward	Pillai's Trace	.327	44.785[a]	1.000	92.000	.000	.327
	Wilks' Lambda	.673	44.785[a]	1.000	92.000	.000	.327
	Hotelling's Trace	.487	44.785[a]	1.000	92.000	.000	.327
	Roy's Largest Root	.487	44.785[a]	1.000	92.000	.000	.327
correctness * backward	Pillai's Trace	.109	11.198[a]	1.000	92.000	.001	.109
	Wilks' Lambda	.891	11.198[a]	1.000	92.000	.001	.109
	Hotelling's Trace	.122	11.198[a]	1.000	92.000	.001	.109
	Roy's Largest Root	.122	11.198[a]	1.000	92.000	.001	.109
correctness * forward * backward	Pillai's Trace	.016	1.521[a]	1.000	92.000	.221	.016
	Wilks' Lambda	.984	1.521[a]	1.000	92.000	.221	.016
	Hotelling's Trace	.017	1.521[a]	1.000	92.000	.221	.016
	Roy's Largest Root	.017	1.521[a]	1.000	92.000	.221	.016
group * correctness	Pillai's Trace	.000	.007[a]	1.000	92.000	.935	.000
	Wilks' Lambda	1.000	.007[a]	1.000	92.000	.935	.000
	Hotelling's Trace	.000	.007[a]	1.000	92.000	.935	.000
	Roy's Largest Root	.000	.007[a]	1.000	92.000	.935	.000
group * correctness * forward	Pillai's Trace	.000	.002[a]	1.000	92.000	.961	.000
	Wilks' Lambda	1.000	.002[a]	1.000	92.000	.961	.000
	Hotelling's Trace	.000	.002[a]	1.000	92.000	.961	.000
	Roy's Largest Root	.000	.002[a]	1.000	92.000	.961	.000

a. Exact statistic

b. Design: Intercept + forward + backward + forward * backward
Within Subjects Design: group + correctness + group * correctness

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
group * correctness * backward	Pillai's Trace	.087	8.764[a]	1.000	92.000	.004	.087
	Wilks' Lambda	.913	8.764[a]	1.000	92.000	.004	.087
	Hotelling's Trace	.095	8.764[a]	1.000	92.000	.004	.087
	Roy's Largest Root	.095	8.764[a]	1.000	92.000	.004	.087
group * correctness * forward * backward	Pillai's Trace	.000	.002[a]	1.000	92.000	.968	.000
	Wilks' Lambda	1.000	.002[a]	1.000	92.000	.968	.000
	Hotelling's Trace	.000	.002[a]	1.000	92.000	.968	.000
	Roy's Largest Root	.000	.002[a]	1.000	92.000	.968	.000

a. Exact statistic

b. Design: Intercept + forward + backward + forward * backward
Within Subjects Design: group + correctness + group * correctness

Mauchly's Test of Sphericity[b]

Measure:MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[a]		
					Greenhouse-Geisser	Huynh-Feldt	Lower-bound
group	1.000	.000	0	.	1.000	1.000	1.000
correctness	1.000	.000	0	.	1.000	1.000	1.000
group * correctness	1.000	.000	0	.	1.000	1.000	1.000

Tests the null hypothesis that the error covariance matrix of the orthonormalized transformed dependent variables is proportional to an identity matrix.

a. May be used to adjust the degrees of freedom for the averaged tests of significance. Corrected tests are displayed in the Tests of Within-Subjects Effects table.

b. Design: Intercept + forward + backward + forward * backward
Within Subjects Design: group + correctness + group * correctness

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
group	Sphericity Assumed	13729.602	1	13729.602	1022.460
	Greenhouse-Geisser	13729.602	1.000	13729.602	1022.460
	Huynh-Feldt	13729.602	1.000	13729.602	1022.460
	Lower-bound	13729.602	1.000	13729.602	1022.460
group * forward	Sphericity Assumed	1632.263	1	1632.263	121.557
	Greenhouse-Geisser	1632.263	1.000	1632.263	121.557
	Huynh-Feldt	1632.263	1.000	1632.263	121.557
	Lower-bound	1632.263	1.000	1632.263	121.557
group * backward	Sphericity Assumed	31.637	1	31.637	2.356
	Greenhouse-Geisser	31.637	1.000	31.637	2.356
	Huynh-Feldt	31.637	1.000	31.637	2.356
	Lower-bound	31.637	1.000	31.637	2.356
group * forward * backward	Sphericity Assumed	.207	1	.207	.015
	Greenhouse-Geisser	.207	1.000	.207	.015
	Huynh-Feldt	.207	1.000	.207	.015
	Lower-bound	.207	1.000	.207	.015
Error(group)	Sphericity Assumed	1235.377	92	13.428	
	Greenhouse-Geisser	1235.377	92.000	13.428	
	Huynh-Feldt	1235.377	92.000	13.428	
	Lower-bound	1235.377	92.000	13.428	
correctness	Sphericity Assumed	778.393	1	778.393	134.381
	Greenhouse-Geisser	778.393	1.000	778.393	134.381
	Huynh-Feldt	778.393	1.000	778.393	134.381
	Lower-bound	778.393	1.000	778.393	134.381
correctness * forward	Sphericity Assumed	259.417	1	259.417	44.785
	Greenhouse-Geisser	259.417	1.000	259.417	44.785
	Huynh-Feldt	259.417	1.000	259.417	44.785
	Lower-bound	259.417	1.000	259.417	44.785
correctness * backward	Sphericity Assumed	64.862	1	64.862	11.198
	Greenhouse-Geisser	64.862	1.000	64.862	11.198
	Huynh-Feldt	64.862	1.000	64.862	11.198
	Lower-bound	64.862	1.000	64.862	11.198
correctness * forward * backward	Sphericity Assumed	8.809	1	8.809	1.521
	Greenhouse-Geisser	8.809	1.000	8.809	1.521
	Huynh-Feldt	8.809	1.000	8.809	1.521
	Lower-bound	8.809	1.000	8.809	1.521
Error(correctness)	Sphericity Assumed	532.903	92	5.792	
	Greenhouse-Geisser	532.903	92.000	5.792	
	Huynh-Feldt	532.903	92.000	5.792	

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Sig.	Partial Eta Squared
group	Sphericity Assumed	.000	.917
	Greenhouse-Geisser	.000	.917
	Huynh-Feldt	.000	.917
	Lower-bound	.000	.917
group * forward	Sphericity Assumed	.000	.569
	Greenhouse-Geisser	.000	.569
	Huynh-Feldt	.000	.569
	Lower-bound	.000	.569
group * backward	Sphericity Assumed	.128	.025
	Greenhouse-Geisser	.128	.025
	Huynh-Feldt	.128	.025
	Lower-bound	.128	.025
group * forward * backward	Sphericity Assumed	.901	.000
	Greenhouse-Geisser	.901	.000
	Huynh-Feldt	.901	.000
	Lower-bound	.901	.000
correctness	Sphericity Assumed	.000	.594
	Greenhouse-Geisser	.000	.594
	Huynh-Feldt	.000	.594
	Lower-bound	.000	.594
correctness * forward	Sphericity Assumed	.000	.327
	Greenhouse-Geisser	.000	.327
	Huynh-Feldt	.000	.327
	Lower-bound	.000	.327
correctness * backward	Sphericity Assumed	.001	.109
	Greenhouse-Geisser	.001	.109
	Huynh-Feldt	.001	.109
	Lower-bound	.001	.109
correctness * forward * backward	Sphericity Assumed	.221	.016
	Greenhouse-Geisser	.221	.016
	Huynh-Feldt	.221	.016
	Lower-bound	.221	.016

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
Error(correctness)	Lower-bound	532.903	92.000	5.792	
group * correctness	Sphericity Assumed	.028	1	.028	.007
	Greenhouse-Geisser	.028	1.000	.028	.007
	Huynh-Feldt	.028	1.000	.028	.007
	Lower-bound	.028	1.000	.028	.007
group * correctness * forward	Sphericity Assumed	.010	1	.010	.002
	Greenhouse-Geisser	.010	1.000	.010	.002
	Huynh-Feldt	.010	1.000	.010	.002
	Lower-bound	.010	1.000	.010	.002
group * correctness * backward	Sphericity Assumed	37.014	1	37.014	8.764
	Greenhouse-Geisser	37.014	1.000	37.014	8.764
	Huynh-Feldt	37.014	1.000	37.014	8.764
	Lower-bound	37.014	1.000	37.014	8.764
group * correctness * forward * backward	Sphericity Assumed	.007	1	.007	.002
	Greenhouse-Geisser	.007	1.000	.007	.002
	Huynh-Feldt	.007	1.000	.007	.002
	Lower-bound	.007	1.000	.007	.002
Error (group*correctness)	Sphericity Assumed	388.574	92	4.224	
	Greenhouse-Geisser	388.574	92.000	4.224	
	Huynh-Feldt	388.574	92.000	4.224	
	Lower-bound	388.574	92.000	4.224	

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Sig.	Partial Eta Squared
group * correctness	Sphericity Assumed	.935	.000
	Greenhouse-Geisser	.935	.000
	Huynh-Feldt	.935	.000
	Lower-bound	.935	.000
group * correctness * forward	Sphericity Assumed	.961	.000
	Greenhouse-Geisser	.961	.000
	Huynh-Feldt	.961	.000
	Lower-bound	.961	.000
group * correctness * backward	Sphericity Assumed	.004	.087
	Greenhouse-Geisser	.004	.087
	Huynh-Feldt	.004	.087
	Lower-bound	.004	.087
group * correctness * forward * backward	Sphericity Assumed	.968	.000
	Greenhouse-Geisser	.968	.000
	Huynh-Feldt	.968	.000
	Lower-bound	.968	.000

Tests of Within-Subjects Contrasts

Measure:MEASURE_1

Source	g ...	correctness	Type III Sum of Squares	df	Mean Square	F
group	Linear		13729.602	1	13729.602	1022.460
group * forward	Linear		1632.263	1	1632.263	121.557
group * backward	Linear		31.637	1	31.637	2.356
group * forward * backward	Linear		.207	1	.207	.015
Error(group)	Linear		1235.377	92	13.428	
correctness		Linear	778.393	1	778.393	134.381
correctness * forward		Linear	259.417	1	259.417	44.785
correctness * backward		Linear	64.862	1	64.862	11.198
correctness * forward * backward		Linear	8.809	1	8.809	1.521
Error(correctness)		Linear	532.903	92	5.792	
group * correctness	Linear	Linear	.028	1	.028	.007
group * correctness * forward	Linear	Linear	.010	1	.010	.002
group * correctness * backward	Linear	Linear	37.014	1	37.014	8.764
group * correctness * forward * backward	Linear	Linear	.007	1	.007	.002
Error (group*correctness)	Linear	Linear	388.574	92	4.224	

Tests of Within-Subjects Contrasts

Measure:MEASURE_1

Source	g ...	correctness	Sig.	Partial Eta Squared
group	Linear		.000	.917
group * forward	Linear		.000	.569
group * backward	Linear		.128	.025
group * forward * backward	Linear		.901	.000
correctness		Linear	.000	.594
correctness * forward		Linear	.000	.327
correctness * backward		Linear	.001	.109
correctness * forward * backward		Linear	.221	.016
group * correctness	Linear	Linear	.935	.000
group * correctness * forward	Linear	Linear	.961	.000
group * correctness * backward	Linear	Linear	.004	.087
group * correctness * forward * backward	Linear	Linear	.968	.000

Tests of Between-Subjects Effects

Measure:MEASURE_1
Transformed Variable:Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	1.604E6	1	1.604E6	6637.585	.000	.986
forward	41935.850	1	41935.850	173.567	.000	.654
backward	7830.274	1	7830.274	32.409	.000	.261
forward * backward	1030.708	1	1030.708	4.266	.042	.044
Error	22228.279	92	241.612			

Estimated Marginal Means

1. Grand Mean

Measure:MEASURE_1

Mean	Std. Error	95% Confidence Interval	
		Lower Bound	Upper Bound
64.625	.793	63.049	66.200

2. forward

Measure:MEASURE_1

forward	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
low	54.174	1.122	51.946	56.402
high	75.075	1.122	72.847	77.303

3. backward

Measure:MEASURE_1

backward	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
low	60.109	1.122	57.881	62.337
high	69.140	1.122	66.912	71.368

4. group

Measure:MEASURE_1

group	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	70.604	.706	69.202	72.006
2	58.645	.911	56.836	60.455

5. correctness

Measure:MEASURE_1

correctness	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	66.048	.754	64.552	67.545
2	63.201	.849	61.515	64.887

6. forward * backward

Measure:MEASURE_1

forward	backward	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
low	low	51.297	1.586	48.146	54.448
	high	57.052	1.586	53.901	60.203
high	low	68.921	1.586	65.770	72.072
	high	81.229	1.586	78.078	84.380

7. forward * group

Measure:MEASURE_1

forward	group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
low	1	62.216	.998	60.233	64.198
	2	46.133	1.288	43.574	48.692
high	1	78.993	.998	77.010	80.975
	2	71.157	1.288	68.598	73.716

8. forward * correctness

Measure:MEASURE_1

forward	correctness	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
low	1	56.420	1.066	54.304	58.537
	2	51.929	1.201	49.544	54.313
high	1	75.677	1.066	73.560	77.793
	2	74.473	1.201	72.089	76.858

9. backward * group

Measure:MEASURE_1

backward	group	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
low	1	66.376	.998	64.393	68.358
	2	53.843	1.288	51.284	56.401
high	1	74.833	.998	72.850	76.816
	2	63.448	1.288	60.889	66.007

10. backward * correctness

Measure:MEASURE_1

backward	correctness	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
low	1	61.944	1.066	59.827	64.060
	2	58.274	1.201	55.890	60.659
high	1	70.153	1.066	68.037	72.270
	2	68.128	1.201	65.743	70.512

11. group * correctness

Measure:MEASURE_1

group	correctness	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	72.036	.687	70.672	73.401
	2	69.172	.750	67.682	70.661
2	1	60.060	.863	58.347	61.774
	2	57.230	.991	55.262	59.198

12. forward * backward * group

Measure:MEASURE_1

forward	backward	group	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
low	low	1	59.602	1.412	56.798	62.406
		2	42.992	1.822	39.373	46.611
	high	1	64.829	1.412	62.025	67.633
		2	49.274	1.822	45.656	52.893
high	low	1	73.149	1.412	70.345	75.953
		2	64.693	1.822	61.074	68.312
	high	1	84.836	1.412	82.032	87.641
		2	77.621	1.822	74.003	81.240

13. forward * backward * correctness

Measure:MEASURE_1

forward	backward	correctness	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
low	low	1	53.802	1.507	50.809	56.795
		2	48.792	1.698	45.420	52.164
	high	1	59.038	1.507	56.045	62.031
		2	55.066	1.698	51.693	58.438
high	low	1	70.085	1.507	67.092	73.078
		2	67.757	1.698	64.384	71.129
	high	1	81.268	1.507	78.275	84.262
		2	81.190	1.698	77.817	84.562

14. forward * group * correctness

Measure:MEASURE_1

forward	group	correctness	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
low	1	1	64.475	.972	62.545	66.405
		2	59.956	1.061	57.850	62.063
	2	1	48.365	1.220	45.942	50.789
		2	43.901	1.401	41.118	46.684
high	1	1	79.598	.972	77.668	81.528
		2	78.387	1.061	76.281	80.494
	2	1	71.756	1.220	69.332	74.179
		2	70.559	1.401	67.776	73.342

15. backward * group * correctness

Measure:MEASURE_1

backward	group	correctness	Mean	Std. Error	95% Confidence Interval	
					Lower Bound	Upper Bound
low	1	1	67.908	.972	65.978	69.838
		2	64.843	1.061	62.736	66.949
	2	1	55.979	1.220	53.556	58.403
		2	51.706	1.401	48.923	54.489
high	1	1	76.165	.972	74.235	78.095
		2	73.501	1.061	71.394	75.608
	2	1	64.142	1.220	61.718	66.565
		2	62.754	1.401	59.971	65.537

16. forward * backward * group * correctness

Measure:MEASURE_1

forward	backward	group	correctness	Mean	Std. Error	95% Confidence Interval	
						Lower Bound	Upper Bound
low	low	1	1	61.806	1.374	59.077	64.536
			2	57.398	1.500	54.419	60.377
		2	1	45.798	1.726	42.371	49.226
			2	40.186	1.982	36.250	44.122
	high	1	1	67.144	1.374	64.414	69.873
			2	62.515	1.500	59.535	65.494
		2	1	50.932	1.726	47.505	54.359
			2	47.617	1.982	43.681	51.553
high	low	1	1	74.010	1.374	71.281	76.740
			2	72.288	1.500	69.308	75.267
		2	1	66.160	1.726	62.733	69.587
			2	63.226	1.982	59.290	67.162
	high	1	1	85.185	1.374	82.456	87.915
			2	84.487	1.500	81.508	87.467
		2	1	77.351	1.726	73.924	80.779
			2	77.892	1.982	73.956	81.828