```
GLM HA_faces SA_faces BY Groups Gender
 /WSFACTOR=Emotion 2 Polynomial
 /METHOD=SSTYPE(3)
 /EMMEANS=TABLES(Groups) COMPARE ADJ(BONFERRONI)
 /EMMEANS=TABLES(Gender) COMPARE ADJ(BONFERRONI)
 /EMMEANS=TABLES(Emotion) COMPARE ADJ(BONFERRONI)
 /PRINT=DESCRIPTIVE HOMOGENEITY
 /CRITERIA=ALPHA(.05)
 /WSDESIGN=Emotion
 /DESIGN=Groups Gender Groups*Gender.
```

General Linear Model

Notes

Output Created		31-DEC-2018 22:21:29
Comments		
Input	Data	D:\Documents\gender.sav
	Active Dataset	DataSet4
	Filter	<none>
	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	32
Missing Value Handling	Definition of Missing	User-defined missing values are treated as missing.
	Cases Used	Statistics are based on all cases with valid data for all variables in the model.

Notes

Syntax		GLM HA_faces SA_faces BY Groups Gender /WSFACTOR=Emotion 2 Polynomial /METHOD=SSTYPE(3) /EMMEANS=TABLES (Groups) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES (Gender) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES (Emotion) COMPARE ADJ (BONFERRONI) /PRINT=DESCRIPTIVE HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=Emotion /DESIGN=Groups Gender Groups*Gender.
Resources	Processor Time	00:00:00.06
	Elapsed Time	00:00:00.35

[DataSet4] D:\Documents\gender.sav

Within-Subjects Factors

Measure: MEASURE_1

Emotion	Dependent Variable
1	HA_faces
2	SA_faces

Between-Subjects Factors

		Value Label	N
Groups	.00	neutralp	16
	1.00	sadp	16
Gender	3.00	female	16
	4.00	male	16

Descriptive Statistics

	Groups	Gender	Mean	Std. Deviation	N
HA_faces	neutralp	female	456.0025	365.36433	8
		male	468.4775	446.14044	8
		Total	462.2400	393.98385	16
	sadp	female	445.9700	227.26936	8
		male	455.2800	188.20209	8
		Total	450.6250	201.63439	16
	Total	female	450.9863	293.98410	16
		male	461.8788	330.85001	16
		Total	456.4325	307.92096	32
SA_faces	neutralp	female	344.2400	88.25555	8
		male	427.2238	214.48690	8
		Total	385.7319	164.13427	16
	sadp	female	351.2713	80.03000	8
		male	457.2400	408.25788	8
		Total	404.2556	289.42156	16
	Total	female	347.7556	81.46764	16
		male	442.2319	315.42117	16
		Total	394.9938	231.63643	32

Box's Test of Equality of Covariance Matrices[a]

Box's M	43.297
F	4.186
df1	9
df2	8984.489
Sig.	.000

Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.

a. Design: Intercept + Groups + Gender + Groups * Gender
   Within Subjects Design: Emotion

Multivariate Tests[a]

Effect		Value	F	Hypothesis df	Error df
Emotion	Pillai's Trace	.039	1.139[b]	1.000	28.000
	Wilks' Lambda	.961	1.139[b]	1.000	28.000
	Hotelling's Trace	.041	1.139[b]	1.000	28.000
	Roy's Largest Root	.041	1.139[b]	1.000	28.000
Emotion * Groups	Pillai's Trace	.002	.069[b]	1.000	28.000
	Wilks' Lambda	.998	.069[b]	1.000	28.000
	Hotelling's Trace	.002	.069[b]	1.000	28.000
	Roy's Largest Root	.002	.069[b]	1.000	28.000
Emotion * Gender	Pillai's Trace	.018	.527[b]	1.000	28.000
	Wilks' Lambda	.982	.527[b]	1.000	28.000
	Hotelling's Trace	.019	.527[b]	1.000	28.000
	Roy's Largest Root	.019	.527[b]	1.000	28.000
Emotion * Groups * Gender	Pillai's Trace	.000	.013[b]	1.000	28.000
	Wilks' Lambda	1.000	.013[b]	1.000	28.000
	Hotelling's Trace	.000	.013[b]	1.000	28.000
	Roy's Largest Root	.000	.013[b]	1.000	28.000

Multivariate Tests[a]

Effect		Sig.
Emotion	Pillai's Trace	.295
	Wilks' Lambda	.295
	Hotelling's Trace	.295
	Roy's Largest Root	.295
Emotion * Groups	Pillai's Trace	.795
	Wilks' Lambda	.795
	Hotelling's Trace	.795
	Roy's Largest Root	.795
Emotion * Gender	Pillai's Trace	.474
	Wilks' Lambda	.474
	Hotelling's Trace	.474
	Roy's Largest Root	.474
Emotion * Groups * Gender	Pillai's Trace	.910
	Wilks' Lambda	.910
	Hotelling's Trace	.910
	Roy's Largest Root	.910

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.	Epsilon[b] Greenhouse-Geisser
Emotion	1.000	.000	0	.	1.000

Mauchly's Test of Sphericity[a]

Measure: MEASURE_1

| Within Subjects Effect | Epsilon[b] | |
	Huynh-Feldt	Lower-bound
Emotion	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.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square
Emotion	Sphericity Assumed	60395.520	1	60395.520
	Greenhouse-Geisser	60395.520	1.000	60395.520
	Huynh-Feldt	60395.520	1.000	60395.520
	Lower-bound	60395.520	1.000	60395.520
Emotion * Groups	Sphericity Assumed	3633.377	1	3633.377
	Greenhouse-Geisser	3633.377	1.000	3633.377
	Huynh-Feldt	3633.377	1.000	3633.377
	Lower-bound	3633.377	1.000	3633.377
Emotion * Gender	Sphericity Assumed	27944.973	1	27944.973
	Greenhouse-Geisser	27944.973	1.000	27944.973
	Huynh-Feldt	27944.973	1.000	27944.973
	Lower-bound	27944.973	1.000	27944.973
Emotion * Groups * Gender	Sphericity Assumed	683.822	1	683.822
	Greenhouse-Geisser	683.822	1.000	683.822
	Huynh-Feldt	683.822	1.000	683.822
	Lower-bound	683.822	1.000	683.822
Error(Emotion)	Sphericity Assumed	1484426.197	28	53015.221
	Greenhouse-Geisser	1484426.197	28.000	53015.221
	Huynh-Feldt	1484426.197	28.000	53015.221
	Lower-bound	1484426.197	28.000	53015.221

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		F	Sig.
Emotion	Sphericity Assumed	1.139	.295
	Greenhouse-Geisser	1.139	.295
	Huynh-Feldt	1.139	.295
	Lower-bound	1.139	.295
Emotion * Groups	Sphericity Assumed	.069	.795
	Greenhouse-Geisser	.069	.795
	Huynh-Feldt	.069	.795
	Lower-bound	.069	.795
Emotion * Gender	Sphericity Assumed	.527	.474
	Greenhouse-Geisser	.527	.474
	Huynh-Feldt	.527	.474
	Lower-bound	.527	.474
Emotion * Groups * Gender	Sphericity Assumed	.013	.910
	Greenhouse-Geisser	.013	.910
	Huynh-Feldt	.013	.910
	Lower-bound	.013	.910
Error(Emotion)	Sphericity Assumed		
	Greenhouse-Geisser		
	Huynh-Feldt		
	Lower-bound		

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Emotion	Type III Sum of Squares	df	Mean Square	F
Emotion	Linear	60395.520	1	60395.520	1.139
Emotion * Groups	Linear	3633.377	1	3633.377	.069
Emotion * Gender	Linear	27944.973	1	27944.973	.527
Emotion * Groups * Gender	Linear	683.822	1	683.822	.013
Error(Emotion)	Linear	1484426.197	28	53015.221	

Tests of Within-Subjects Contrasts

Measure: MEASURE_1

Source	Emotion	Sig.
Emotion	Linear	.295
Emotion * Groups	Linear	.795
Emotion * Gender	Linear	.474
Emotion * Groups * Gender	Linear	.910
Error(Emotion)	Linear	

Levene's Test of Equality of Error Variances[a]

		Levene Statistic	df1	df2	Sig.
HA_faces	Based on Mean	.605	3	28	.617
	Based on Median	.131	3	28	.941
	Based on Median and with adjusted df	.131	3	16.812	.940
	Based on trimmed mean	.376	3	28	.771
SA_faces	Based on Mean	2.189	3	28	.111
	Based on Median	.768	3	28	.522
	Based on Median and with adjusted df	.768	3	9.765	.538
	Based on trimmed mean	1.534	3	28	.228

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

a. Design: Intercept + Groups + Gender + Groups * Gender
   Within Subjects Design: Emotion

Tests of Between-Subjects Effects

Measure: MEASURE_1

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Intercept	11598826.55	1	11598826.55	106.799	.000
Groups	190.923	1	190.923	.002	.967
Gender	44410.294	1	44410.294	.409	.528
Groups * Gender	392.832	1	392.832	.004	.952
Error	3040910.936	28	108603.962		

Estimated Marginal Means

1. Groups

Estimates

Measure: MEASURE_1

| Groups | Mean | Std. Error | 95% Confidence Interval | |
			Lower Bound	Upper Bound
neutralp	423.986	58.257	304.652	543.320
sadp	427.440	58.257	308.106	546.774

Pairwise Comparisons

Measure: MEASURE_1

| (I) Groups | (J) Groups | Mean Difference (I-J) | Std. Error | Sig.[a] | 95% Confidence Interval for Difference[a] | |
					Lower Bound	Upper Bound
neutralp	sadp	-3.454	82.388	.967	-172.218	165.309
sadp	neutralp	3.454	82.388	.967	-165.309	172.218

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	95.462	1	95.462	.002	.967
Error	1520455.468	28	54301.981		

The F tests the effect of Groups. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

2. Gender

Estimates

Measure: MEASURE_1

| Gender | Mean | Std. Error | 95% Confidence Interval | |
			Lower Bound	Upper Bound
female	399.371	58.257	280.037	518.705
male	452.055	58.257	332.721	571.389

Pairwise Comparisons

Measure: MEASURE_1

(I) Gender	(J) Gender	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
female	male	-52.684	82.388	.528	-221.448	116.079
male	female	52.684	82.388	.528	-116.079	221.448

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests

Measure: MEASURE_1

	Sum of Squares	df	Mean Square	F	Sig.
Contrast	22205.147	1	22205.147	.409	.528
Error	1520455.468	28	54301.981		

The F tests the effect of Gender. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.

3. Emotion

Estimates

Measure: MEASURE_1

Emotion	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	456.433	57.255	339.151	573.714
2	394.994	42.100	308.755	481.233

Pairwise Comparisons

Measure: MEASURE_1

(I) Emotion	(J) Emotion	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	61.439	57.563	.295	-56.473	179.350
2	1	-61.439	57.563	.295	-179.350	56.473

Based on estimated marginal means

a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.
Pillai's trace	.039	1.139[a]	1.000	28.000	.295
Wilks' lambda	.961	1.139[a]	1.000	28.000	.295
Hotelling's trace	.041	1.139[a]	1.000	28.000	.295
Roy's largest root	.041	1.139[a]	1.000	28.000	.295

Each F tests the multivariate effect of Emotion. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.

a. Exact statistic