```
GLM Angle_above Angle_below Area_above Area_below Length_above Length_below Curve_above Curve_b
  /WSFACTOR=visualPrimitives 7 Polynomial Magnitude 2 Polynomial
  /METHOD=SSTYPE(3)
  /PLOT=PROFILE(visualPrimitives*Magnitude)
  /EMMEANS=TABLES(visualPrimitives) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(Magnitude) COMPARE ADJ(BONFERRONI)
  /EMMEANS=TABLES(visualPrimitives*Magnitude)
  /PRINT=DESCRIPTIVE ETASQ HOMOGENEITY
  /CRITERIA=ALPHA(.05)
  /WSDESIGN=visualPrimitives Magnitude visualPrimitives*Magnitude.
```

General Linear Model

Notes

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Comments		
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	Weight	<none>
	Split File	<none>
	N of Rows in Working Data File	35
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.
Syntax		GLM Angle_above Angle_below Area_above Area_below Length_above Length_below Curve_above Curve_below Distance_above Distance_below Position_above Position_low texture_above Texture_low /WSFACTOR=visualPrimitives 7 Polynomial Magnitude 2 Polynomial /METHOD=SSTYPE(3) /PLOT=PROFILE (visualPrimitives*Magnitude) /EMMEANS=TABLES (visualPrimitives) COMPARE ADJ (BONFERRONI) /EMMEANS=TABLES(Magnitude) COMPARE ADJ(BONFERRONI) /EMMEANS=TABLES (visualPrimitives*Magnitude) /PRINT=DESCRIPTIVE ETASQ HOMOGENEITY /CRITERIA=ALPHA(.05) /WSDESIGN=visualPrimitives Magnitude visualPrimitives*Magnitude.
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	Elapsed Time	00 00:00:00.967

[DataSet0]

Warnings

The HOMOGENEITY specification in the PRINT subcommand will be ignored because there are no between-subjects factors.

Within-Subjects Factors

Measure:MEASURE_1

visualPrimitives	Magnitude	Dependent Variable
1	1	Angle_above
	2	Angle_below
2	1	Area_above
	2	Area_below
3	1	Length_above
	2	Length_below
4	1	Curve_above
	2	Curve_below
5	1	Distance_ above
	2	Distance_ below
6	1	Position_abov e
	2	Position_low
7	1	texture_above
	2	Texture_low

Descriptive Statistics

	Mean	Std. Deviation	N
Angle_above	2.9411	1.22754	35
Angle_below	2.5037	1.41003	35
Area_above	3.3043	1.40981	35
Area_below	3.6360	1.67703	35
Length_above	2.7769	1.03671	35
Length_below	2.0963	1.06659	35
Curve_above	3.6151	1.13934	35
Curve_below	3.4297	1.16582	35
Distance_above	3.8909	1.75404	35
Distance_below	2.6789	1.06853	35
Position_above	2.6329	1.24178	35
Position_low	2.3980	.83543	35
texture_above	7.4197	3.32641	35
Texture_low	6.3129	2.06609	35

Multivariate Tests[b]

Effect		Value	F	Hypothesis df	Error df
visualPrimitives	Pillai's Trace	.900	43.662[a]	6.000	29.000
	Wilks' Lambda	.100	43.662[a]	6.000	29.000
	Hotelling's Trace	9.033	43.662[a]	6.000	29.000
	Roy's Largest Root	9.033	43.662[a]	6.000	29.000
Magnitude	Pillai's Trace	.331	16.789[a]	1.000	34.000
	Wilks' Lambda	.669	16.789[a]	1.000	34.000
	Hotelling's Trace	.494	16.789[a]	1.000	34.000
	Roy's Largest Root	.494	16.789[a]	1.000	34.000
visualPrimitives * Magnitude	Pillai's Trace	.477	4.407[a]	6.000	29.000
	Wilks' Lambda	.523	4.407[a]	6.000	29.000
	Hotelling's Trace	.912	4.407[a]	6.000	29.000
	Roy's Largest Root	.912	4.407[a]	6.000	29.000

Multivariate Tests[b]

Effect		Sig.	Partial Eta Squared
visualPrimitives	Pillai's Trace	.000	.900
	Wilks' Lambda	.000	.900
	Hotelling's Trace	.000	.900
	Roy's Largest Root	.000	.900
Magnitude	Pillai's Trace	.000	.331
	Wilks' Lambda	.000	.331
	Hotelling's Trace	.000	.331
	Roy's Largest Root	.000	.331
visualPrimitives * Magnitude	Pillai's Trace	.003	.477
	Wilks' Lambda	.003	.477
	Hotelling's Trace	.003	.477
	Roy's Largest Root	.003	.477

a. Exact statistic
b. Design: Intercept
Within Subjects Design: visualPrimitives + Magnitude + visualPrimitives * Magnitude

Mauchly's Test of Sphericity[b]

Measure:MEASURE_1

Within Subjects Effect	Mauchly's W	Approx. Chi-Square	df	Sig.
visualPrimitives	.116	68.453	20	.000
Magnitude	1.000	.000	0	.
visualPrimitives * Magnitude	.026	115.721	20	.000

Mauchly's Test of Sphericity[b]

Measure:MEASURE_1

Within Subjects Effect	Epsilon[a]		
	Greenhouse-Geisser	Huynh-Feldt	Lower-bound
visualPrimitives	.495	.547	.167
Magnitude	1.000	1.000	1.000
visualPrimitives * Magnitude	.375	.403	.167

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
Within Subjects Design: visualPrimitives + Magnitude + visualPrimitives * Magnitude

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F
visualPrimitives	Sphericity Assumed	984.899	6	164.150	95.229
	Greenhouse-Geisser	984.899	2.970	331.665	95.229
	Huynh-Feldt	984.899	3.285	299.818	95.229
	Lower-bound	984.899	1.000	984.899	95.229
Error(visualPrimitives)	Sphericity Assumed	351.641	204	1.724	
	Greenhouse-Geisser	351.641	100.965	3.483	
	Huynh-Feldt	351.641	111.689	3.148	
	Lower-bound	351.641	34.000	10.342	
Magnitude	Sphericity Assumed	31.072	1	31.072	16.789
	Greenhouse-Geisser	31.072	1.000	31.072	16.789
	Huynh-Feldt	31.072	1.000	31.072	16.789
	Lower-bound	31.072	1.000	31.072	16.789
Error(Magnitude)	Sphericity Assumed	62.926	34	1.851	
	Greenhouse-Geisser	62.926	34.000	1.851	
	Huynh-Feldt	62.926	34.000	1.851	
	Lower-bound	62.926	34.000	1.851	
visualPrimitives * Magnitude	Sphericity Assumed	31.021	6	5.170	2.994
	Greenhouse-Geisser	31.021	2.251	13.778	2.994
	Huynh-Feldt	31.021	2.419	12.824	2.994
	Lower-bound	31.021	1.000	31.021	2.994
Error(visual Primitives*Magnitude)	Sphericity Assumed	352.241	204	1.727	
	Greenhouse-Geisser	352.241	76.550	4.601	
	Huynh-Feldt	352.241	82.248	4.283	
	Lower-bound	352.241	34.000	10.360	

Tests of Within-Subjects Effects

Measure:MEASURE_1

Source		Sig.	Partial Eta Squared
visualPrimitives	Sphericity Assumed	.000	.737
	Greenhouse-Geisser	.000	.737
	Huynh-Feldt	.000	.737
	Lower-bound	.000	.737
Magnitude	Sphericity Assumed	.000	.331
	Greenhouse-Geisser	.000	.331
	Huynh-Feldt	.000	.331
	Lower-bound	.000	.331
visualPrimitives * Magnitude	Sphericity Assumed	.008	.081
	Greenhouse-Geisser	.050	.081
	Huynh-Feldt	.046	.081
	Lower-bound	.093	.081

Tests of Within-Subjects Contrasts

Measure:MEASURE_1

Source		Magnitude	Type III Sum of Squares	df	Mean Square
visualPrimitives	Linear		323.217	1	323.217
	Quadratic		232.118	1	232.118
	Cubic		210.758	1	210.758
	Order 4		85.602	1	85.602
	Order 5		124.118	1	124.118
	Order 6		9.087	1	9.087
Error(visualPrimitives)	Linear		101.897	34	2.997
	Quadratic		76.440	34	2.248
	Cubic		77.829	34	2.289
	Order 4		26.021	34	.765
	Order 5		46.367	34	1.364
	Order 6		23.086	34	.679
Magnitude		Linear	31.072	1	31.072
Error(Magnitude)		Linear	62.926	34	1.851
visualPrimitives * Magnitude	Linear	Linear	8.431	1	8.431
	Quadratic	Linear	.353	1	.353
	Cubic	Linear	.536	1	.536
	Order 4	Linear	7.859	1	7.859
	Order 5	Linear	.234	1	.234
	Order 6	Linear	13.609	1	13.609
Error(visual Primitives*Magnitude)	Linear	Linear	142.784	34	4.200
	Quadratic	Linear	75.032	34	2.207
	Cubic	Linear	54.613	34	1.606
	Order 4	Linear	40.792	34	1.200
	Order 5	Linear	18.421	34	.542
	Order 6	Linear	20.599	34	.606

Tests of Within-Subjects Contrasts

Measure:MEASURE_1

Source		Magnitude	F	Sig.	Partial Eta Squared
visualPrimitives	Linear		107.847	.000	.760
	Quadratic		103.244	.000	.752
	Cubic		92.070	.000	.730
	Order 4		111.851	.000	.767
	Order 5		91.013	.000	.728
	Order 6		13.382	.001	.282
Magnitude		Linear	16.789	.000	.331
visualPrimitives * Magnitude	Linear	Linear	2.008	.166	.056
	Quadratic	Linear	.160	.692	.005
	Cubic	Linear	.334	.567	.010
	Order 4	Linear	6.550	.015	.162
	Order 5	Linear	.432	.515	.013
	Order 6	Linear	22.462	.000	.398

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	6159.402	1	6159.402	496.582	.000	.936
Error	421.722	34	12.404			

Estimated Marginal Means

1. visualPrimitives

Estimates

Measure:MEASURE_1

visualPrimitives	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	2.722	.173	2.371	3.074
2	3.470	.224	3.016	3.925
3	2.437	.164	2.103	2.770
4	3.522	.181	3.155	3.890
5	3.285	.212	2.853	3.716
6	2.515	.148	2.215	2.816
7	6.866	.344	6.167	7.565

Pairwise Comparisons

Measure:MEASURE_1

(I) visualPrimitives	(J) visualPrimitives	Mean Difference (I-J)	Std. Error	Sig.[a]
1	2	-.748*	.189	.008
	3	.286	.178	1.000
	4	-.800*	.155	.000
	5	-.562	.179	.074
	6	.207	.167	1.000
	7	-4.144*	.347	.000
2	1	.748*	.189	.008
	3	1.034*	.192	.000
	4	-.052	.170	1.000
	5	.185	.197	1.000
	6	.955*	.189	.000
	7	-3.396*	.281	.000
3	1	-.286	.178	1.000
	2	-1.034*	.192	.000
	4	-1.086*	.151	.000
	5	-.848*	.185	.001
	6	-.079	.151	1.000
	7	-4.430*	.321	.000
4	1	.800*	.155	.000
	2	.052	.170	1.000
	3	1.086*	.151	.000
	5	.238	.150	1.000
	6	1.007*	.161	.000
	7	-3.344*	.335	.000
5	1	.562	.179	.074
	2	-.185	.197	1.000
	3	.848*	.185	.001
	4	-.238	.150	1.000
	6	.769*	.147	.000
	7	-3.581*	.297	.000
6	1	-.207	.167	1.000
	2	-.955*	.189	.000
	3	.079	.151	1.000

Pairwise Comparisons

Measure:MEASURE_1

(I) visualPrimitives	(J) visualPrimitives	95% Confidence Interval for Difference [a]	
		Lower Bound	Upper Bound
1	2	-1.369	-.126
	3	-.300	.871
	4	-1.307	-.293
	5	-1.152	.027
	6	-.343	.757
	7	-5.282	-3.006
2	1	.126	1.369
	3	.404	1.664
	4	-.609	.504
	5	-.460	.831
	6	.335	1.575
	7	-4.320	-2.472
3	1	-.871	.300
	2	-1.664	-.404
	4	-1.582	-.590
	5	-1.455	-.242
	6	-.573	.415
	7	-5.485	-3.374
4	1	.293	1.307
	2	-.504	.609
	3	.590	1.582
	5	-.254	.729
	6	.478	1.536
	7	-4.443	-2.245
5	1	-.027	1.152
	2	-.831	.460
	3	.242	1.455
	4	-.729	.254
	6	.288	1.251
	7	-4.557	-2.606
6	1	-.757	.343
	2	-1.575	-.335
	3	-.415	.573

Pairwise Comparisons

Measure:MEASURE_1

(I) visualPrimitives	(J) visualPrimitives	Mean Difference (I-J)	Std. Error	Sig.[a]
6	4	-1.007*	.161	.000
	5	-.769*	.147	.000
	7	-4.351*	.300	.000
7	1	4.144*	.347	.000
	2	3.396*	.281	.000
	3	4.430*	.321	.000
	4	3.344*	.335	.000
	5	3.581*	.297	.000
	6	4.351*	.300	.000

Pairwise Comparisons

Measure:MEASURE_1

		95% Confidence Interval for Difference[a]	
(I) visualPrimitives	(J) visualPrimitives	Lower Bound	Upper Bound
6	4	-1.536	-.478
	5	-1.251	-.288
	7	-5.337	-3.365
7	1	3.006	5.282
	2	2.472	4.320
	3	3.374	5.485
	4	2.245	4.443
	5	2.606	4.557
	6	3.365	5.337

Based on estimated marginal means

*. The mean difference is significant at the .05 level.
a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.900	43.662[a]	6.000	29.000	.000	.900
Wilks' lambda	.100	43.662[a]	6.000	29.000	.000	.900
Hotelling's trace	9.033	43.662[a]	6.000	29.000	.000	.900
Roy's largest root	9.033	43.662[a]	6.000	29.000	.000	.900

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

a. Exact statistic

2. Magnitude

Estimates

Measure:MEASURE_1

Magnitude	Mean	Std. Error	95% Confidence Interval	
			Lower Bound	Upper Bound
1	3.797	.185	3.421	4.173
2	3.294	.155	2.979	3.608

Pairwise Comparisons

Measure:MEASURE_1

(I) Magnitude	(J) Magnitude	Mean Difference (I-J)	Std. Error	Sig.[a]	95% Confidence Interval for Difference[a]	
					Lower Bound	Upper Bound
1	2	.504*	.123	.000	.254	.753
2	1	-.504*	.123	.000	-.753	-.254

Based on estimated marginal means

*. The mean difference is significant at the .05 level.
a. Adjustment for multiple comparisons: Bonferroni.

Multivariate Tests

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.331	16.789[a]	1.000	34.000	.000	.331
Wilks' lambda	.669	16.789[a]	1.000	34.000	.000	.331
Hotelling's trace	.494	16.789[a]	1.000	34.000	.000	.331
Roy's largest root	.494	16.789[a]	1.000	34.000	.000	.331

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

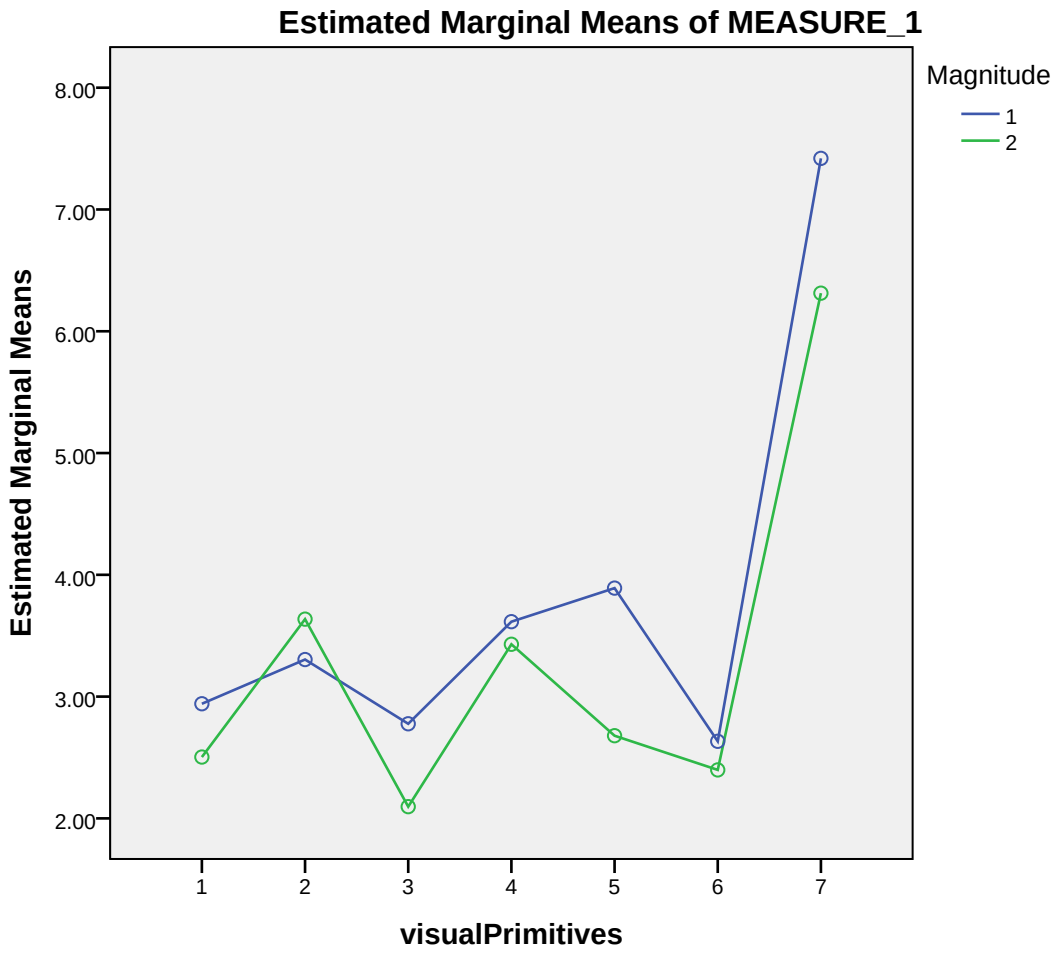
a. Exact statistic

3. visualPrimitives * Magnitude

Measure:MEASURE_1

visualPrimitives	Magnitude	Mean	Std. Error	95% Confidence Interval	
				Lower Bound	Upper Bound
1	1	2.941	.207	2.519	3.363
	2	2.504	.238	2.019	2.988
2	1	3.304	.238	2.820	3.789
	2	3.636	.283	3.060	4.212
3	1	2.777	.175	2.421	3.133
	2	2.096	.180	1.730	2.463
4	1	3.615	.193	3.224	4.007
	2	3.430	.197	3.029	3.830
5	1	3.891	.296	3.288	4.493
	2	2.679	.181	2.312	3.046
6	1	2.633	.210	2.206	3.059
	2	2.398	.141	2.111	2.685
7	1	7.420	.562	6.277	8.562
	2	6.313	.349	5.603	7.023

Profile Plots


Estimated Marginal Means of MEASURE_1
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Estimated Marginal Means
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visualPrimitives