GLM Oril Oril Oril Oril Oril Oril

/WSFACTOR=oriOffset 4 Polynomial

/MEASURE=Response

/METHOD=SSTYPE(3)

/PLOT=PROFILE(oriOffset)

/EMMEANS=TABLES(oriOffset) COMPARE ADJ(BONFERRONI)

/PRINT=DESCRIPTIVE ETASQ

/CRITERIA=ALPHA(.05)

/WSDESIGN=oriOffset.

### **General Linear Model**

#### **Notes**

Output Created	30-OCT-2018 13:49:17	
Comments		
Input	Data	\\files\users\kkillebrew\Des ktop\RM_ANOVA_MRI_O RI_BEHAV.sav
	Active Dataset	DataSet1
	Filter	<none></none>
	Weight	<none></none>
	Split File	<none></none>
	N of Rows in Working Data File	28
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 Ori1 Ori2 Ori3 Ori4 /WSFACTOR=oriOffset 4 Polynomial /MEASURE=Response /METHOD=SSTYPE(3) /PLOT=PROFILE (oriOffset) /EMMEANS=TABLES (oriOffset) COMPARE ADJ(BONFERRONI) /PRINT=DESCRIPTIVE ETASQ /CRITERIA=ALPHA(.05) /WSDESIGN=oriOffset.

#### **Notes**

Resources	Processor Time	00:00:02.47
	Elapsed Time	00:00:01.22

[DataSet1] \\files\users\kkillebrew\Desktop\RM\_ANOVA\_MRI\_ORI\_BEHAV.sav

# Within-Subjects Factors

Measure: Response
Dependent
Variable

1 Ori1
2 Ori2
3 Ori3
4 Ori4

### **Descriptive Statistics**

	Mean	Std. Deviation	N
Ori1	1.4762	.53945	7
Ori2	2.0595	.27095	7
Ori3	2.8214	.46753	7
Ori4	3.5833	.62915	7

## **Multivariate Tests**<sup>a</sup>

Effect		Value	F	Hypothesis df	Error df	Sig.
oriOffset	Pillai's Trace	.828	6.439 <sup>b</sup>	3.000	4.000	.052
	Wilks' Lambda	.172	6.439 <sup>b</sup>	3.000	4.000	.052
	Hotelling's Trace	4.829	6.439 <sup>b</sup>	3.000	4.000	.052
	Roy's Largest Root	4.829	6.439 <sup>b</sup>	3.000	4.000	.052

## **Multivariate Tests**<sup>a</sup>

Effect		Partial Eta Squared
oriOffset	Pillai's Trace	.828
	Wilks' Lambda	.828
	Hotelling's Trace	.828
	Roy's Largest Root	.828

a. Design: Intercept

Within Subjects Design: oriOffset

b. Exact statistic

### Mauchly's Test of Sphericity<sup>a</sup>

Measure: Response

					Epsilon <sup>b</sup>
Within Subjects Effect	Mauchly's W	Approx. Chi- Square	df	Sig.	Greenhouse- Geisser
oriOffset	.110	10.416	5	.069	.469

# Mauchly's Test of Sphericity<sup>a</sup>

Measure: Response

Within Subjects Effect Huynh-Feldt Lower-bound oriOffset .569 .333

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

a. Design: Intercept

Within Subjects Design: oriOffset

b. 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.

#### **Tests of Within-Subjects Effects**

Measure: Response

Source		Type III Sum of Squares	df	Mean Square	F
oriOffset	Sphericity Assumed	17.628	3	5.876	22.320
	Greenhouse-Geisser	17.628	1.407	12.531	22.320
	Huynh-Feldt	17.628	1.708	10.318	22.320
	Lower-bound	17.628	1.000	17.628	22.320
Error(oriOffset)	Sphericity Assumed	4.739	18	.263	
	Greenhouse-Geisser	4.739	8.440	.561	
	Huynh-Feldt	4.739	10.250	.462	
	Lower-bound	4.739	6.000	.790	

# **Tests of Within-Subjects Effects**

Measure: Response

Source		Sig.	Partial Eta Squared
oriOffset	Sphericity Assumed	.000	.788
	Greenhouse-Geisser	.001	.788
	Huynh-Feldt	.000	.788
	Lower-bound	.003	.788
Error(oriOffset)	Sphericity Assumed		
	Greenhouse-Geisser		
	Huynh-Feldt		
	Lower-bound		

### **Tests of Within-Subjects Contrasts**

Measure: Response

Source	oriOffset	Type III Sum of Squares	df	Mean Square	F	Sig.
oriOffset	Linear	17.561	1	17.561	27.196	.002
	Quadratic	.056	1	.056	1.409	.280
	Cubic	.011	1	.011	.107	.755
Error(oriOffset)	Linear	3.874	6	.646		
	Quadratic	.238	6	.040		
	Cubic	.627	6	.104		

## **Tests of Within-Subjects Contrasts**

Measure: Response

Source	oriOffset	Partial Eta Squared
oriOffset	Linear	.819
	Quadratic	.190
	Cubic	.017
Error(oriOffset)	Linear	
	Quadratic	
	Cubic	

## **Tests of Between-Subjects Effects**

Measure: Response

Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Intercept	172.923	1	172.923	914.593	.000	.993
Error	1.134	6	.189			

# **Estimated Marginal Means**

### oriOffset

#### **Estimates**

Measure: Response

			95% Confidence Interval		
oriOffset	Mean	Std. Error	Lower Bound	Upper Bound	
1	1.476	.204	.977	1.975	
2	2.060	.102	1.809	2.310	
3	2.821	.177	2.389	3.254	
4	3.583	.238	3.001	4.165	

### **Pairwise Comparisons**

Measure: Response

	·				95% Confidence Interval for Difference <sup>b</sup>		
(I) oriOffset	(J) oriOffset	Mean Difference (I-J)	Std. Error	Sig. <sup>b</sup>	Lower Bound	Upper Bound	
1	2	583 <sup>*</sup>	.136	.031	-1.109	058	
	3	-1.345 <sup>*</sup>	.280	.018	-2.428	263	
	4	-2.107 <sup>*</sup>	.397	.011	-3.643	572	
2	1	.583*	.136	.031	.058	1.109	
	3	762	.237	.110	-1.679	.155	
	4	-1.524 <sup>*</sup>	.318	.018	-2.752	296	
3	1	1.345*	.280	.018	.263	2.428	
	2	.762	.237	.110	155	1.679	
	4	762 <sup>*</sup>	.197	.050	-1.523	001	
4	1	2.107*	.397	.011	.572	3.643	
	2	1.524*	.318	.018	.296	2.752	
	3	.762 <sup>*</sup>	.197	.050	.001	1.523	

Based on estimated marginal means

#### **Multivariate Tests**

	Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Pillai's trace	.828	6.439 <sup>a</sup>	3.000	4.000	.052	.828
Wilks' lambda	.172	6.439 <sup>a</sup>	3.000	4.000	.052	.828
Hotelling's trace	4.829	6.439 <sup>a</sup>	3.000	4.000	.052	.828
Roy's largest root	4.829	6.439 <sup>a</sup>	3.000	4.000	.052	.828

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

### **Profile Plots**

<sup>\*.</sup> The mean difference is significant at the .05 level.

b. Adjustment for multiple comparisons: Bonferroni.

a. Exact statistic

