

The GLIMMIX Procedure

Model Information	
Data Set	WORK.ATEL
Response Variable	score
Response Distribution	Multinomial (ordered)
Link Function	Cumulative Logit
Variance Function	Default
Variance Matrix Blocked By	id
Estimation Technique	Maximum Likelihood
Likelihood Approximation	Gauss-Hermite Quadrature
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
lobe	6	LLL LLS LUS RLL RML RUL
rater	2	JW VH

Number of Observations Read	1992
Number of Observations Used	1992

Response Profile		
Ordered Value	score	Total Frequency
1	0	1493
2	1	386
3	2	48
4	3	65
The GLIMMIX procedure is modeling the probabilities of levels of score having lower Ordered Values in the Response Profile table.		

Dimensions	
G-side Cov. Parameters	1
Columns in X	11
Columns in Z per Subject	1
Subjects (Blocks in V)	166
Max Obs per Subject	12

Optimization Information	
Optimization Technique	Dual Quasi-Newton
Parameters in Optimization	10
Lower Boundaries	1
Upper Boundaries	0
Fixed Effects	Not Profiled
Starting From	GLM estimates
Quadrature Points	5

Iteration History					
Iteration	Restarts	Evaluations	Objective Function	Change	Max Gradient
0	0	4	2379.9240079	.	51.11866
1	0	3	2367.4493049	12.47470295	54.57621
2	0	3	2354.4586485	12.99065648	37.68942
3	0	3	2346.1591841	8.29946434	26.89358
4	0	3	2341.9151731	4.24401102	8.977644
5	0	3	2339.5196168	2.39555633	7.787855
6	0	2	2336.7064595	2.81315726	3.734394
7	0	3	2336.6272297	0.07922977	6.10601
8	0	4	2336.3690077	0.25822207	2.42126
9	0	3	2336.2019819	0.16702576	0.929462
10	0	4	2336.1935726	0.00840933	0.438038
11	0	3	2336.1900965	0.00347605	0.075486
12	0	3	2336.1900147	0.00008187	0.012437
13	0	3	2336.1900134	0.00000125	0.002215

Convergence criterion (GCONV=1E-8) satisfied.

Fit Statistics	
-2 Log Likelihood	2336.19

Fit Statistics	
AIC (smaller is better)	2356.19
AICC (smaller is better)	2356.30
BIC (smaller is better)	2387.31
CAIC (smaller is better)	2397.31
HQIC (smaller is better)	2368.82

Fit Statistics for Conditional Distribution	
-2 log L(score   r. effects)	1972.76

Covariance Parameter Estimates			
Cov Parm	Subject	Estimate	Standard Error
Intercept	id	2.3229	0.4269

Solutions for Fixed Effects								
Effect	score	lobe	rater	Estimate	Standard Error	DF	t Value	Pr >  t
Intercept	0			1.7714	0.2109	165	8.40	<.0001
Intercept	1			4.2578	0.2502	165	17.02	<.0001
Intercept	2			4.9988	0.2706	165	18.48	<.0001
lobe		LLL		0.6784	0.2372	1818	2.86	0.0043
lobe		LLS		-1.8904	0.1976	1818	-9.56	<.0001
lobe		LUS		1.0656	0.2572	1818	4.14	<.0001
lobe		RLL		1.0912	0.2562	1818	4.26	<.0001
lobe		RML		-2.1020	0.2039	1818	-10.31	<.0001
lobe		RUL		0	.	.	.	.
rater			JW	0.4344	0.1230	1818	3.53	0.0004
rater			VH	0	.	.	.	.

Type III Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
lobe	5	1818	71.15	<.0001
rater	1	1818	12.48	0.0004

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr >  t
Intercept	1	1.7099	0.9805	1818	1.74	0.0814
Intercept	2	0.9362	0.8265	1818	1.13	0.2575
Intercept	3	-1.4330	0.6505	1818	-2.20	0.0277
Intercept	4	1.7099	0.9805	1818	1.74	0.0814
Intercept	5	-0.6824	0.6848	1818	-1.00	0.3192
Intercept	6	0.3800	0.7377	1818	0.52	0.6066
Intercept	7	0.7275	0.8489	1818	0.86	0.3915
Intercept	8	0.8912	0.8374	1818	1.06	0.2873
Intercept	9	-0.07986	0.6822	1818	-0.12	0.9068
Intercept	10	1.7099	0.9805	1818	1.74	0.0814
Intercept	11	-0.5298	0.6516	1818	-0.81	0.4163
Intercept	12	1.7099	0.9805	1818	1.74	0.0814
Intercept	13	0.3800	0.7377	1818	0.52	0.6066
Intercept	14	-1.3428	0.6143	1818	-2.19	0.0289
Intercept	15	-0.5404	0.6549	1818	-0.83	0.4094
Intercept	16	1.7099	0.9805	1818	1.74	0.0814
Intercept	17	1.7099	0.9805	1818	1.74	0.0814
Intercept	18	-0.6069	0.6679	1818	-0.91	0.3636
Intercept	19	-0.4712	0.6411	1818	-0.74	0.4624
Intercept	20	1.7099	0.9805	1818	1.74	0.0814
Intercept	21	-1.6022	0.6126	1818	-2.62	0.0090
Intercept	22	-1.1697	0.5875	1818	-1.99	0.0466
Intercept	23	1.7099	0.9805	1818	1.74	0.0814
Intercept	24	-1.1811	0.5897	1818	-2.00	0.0453
Intercept	25	-2.1572	0.6012	1818	-3.59	0.0003
Intercept	26	1.7099	0.9805	1818	1.74	0.0814
Intercept	27	1.7099	0.9805	1818	1.74	0.0814
Intercept	28	0.3619	0.7414	1818	0.49	0.6256
Intercept	29	1.7099	0.9805	1818	1.74	0.0814
Intercept	30	-1.4256	0.6539	1818	-2.18	0.0294
Intercept	31	1.7099	0.9805	1818	1.74	0.0814

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr >  t
Intercept	32	1.7099	0.9805	1818	1.74	0.0814
Intercept	33	-1.3839	0.5816	1818	-2.38	0.0174
Intercept	34	0.9326	0.8273	1818	1.13	0.2598
Intercept	35	-0.4712	0.6411	1818	-0.74	0.4624
Intercept	36	-0.9514	0.6310	1818	-1.51	0.1318
Intercept	37	0.3619	0.7414	1818	0.49	0.6256
Intercept	38	1.7099	0.9805	1818	1.74	0.0814
Intercept	39	1.7099	0.9805	1818	1.74	0.0814
Intercept	40	-2.4407	0.5364	1818	-4.55	<.0001
Intercept	41	1.7099	0.9805	1818	1.74	0.0814
Intercept	42	-1.0980	0.6594	1818	-1.67	0.0960
Intercept	43	-1.0715	0.6470	1818	-1.66	0.0979
Intercept	44	0.05971	0.7606	1818	0.08	0.9374
Intercept	45	-1.7586	0.5514	1818	-3.19	0.0015
Intercept	46	-1.6598	0.5826	1818	-2.85	0.0044
Intercept	47	-1.1759	0.5887	1818	-2.00	0.0459
Intercept	48	-0.6791	0.6839	1818	-0.99	0.3209
Intercept	49	0.3619	0.7414	1818	0.49	0.6256
Intercept	50	1.7099	0.9805	1818	1.74	0.0814
Intercept	51	-0.6930	0.6445	1818	-1.08	0.2824
Intercept	52	-0.8954	0.6213	1818	-1.44	0.1498
Intercept	53	1.7099	0.9805	1818	1.74	0.0814
Intercept	54	0.3800	0.7377	1818	0.52	0.6066
Intercept	55	-0.1032	0.7761	1818	-0.13	0.8943
Intercept	56	0.3738	0.7390	1818	0.51	0.6130
Intercept	57	-0.1340	0.6933	1818	-0.19	0.8467
Intercept	58	1.7099	0.9805	1818	1.74	0.0814
Intercept	59	-0.7889	0.6620	1818	-1.19	0.2335
Intercept	60	-0.8370	0.6117	1818	-1.37	0.1714
Intercept	61	-0.1351	0.6936	1818	-0.19	0.8456
Intercept	62	-1.3232	0.6101	1818	-2.17	0.0302
Intercept	63	1.7099	0.9805	1818	1.74	0.0814
Intercept	64	-1.2200	0.5959	1818	-2.05	0.0408
Intercept	65	-2.4349	0.5757	1818	-4.23	<.0001
Intercept	66	-3.2092	0.5248	1818	-6.11	<.0001
Intercept	67	0.9362	0.8265	1818	1.13	0.2575
Intercept	68	-1.3662	0.6300	1818	-2.17	0.0303
Intercept	69	1.7099	0.9805	1818	1.74	0.0814
Intercept	70	-1.7431	0.5806	1818	-3.00	0.0027
Intercept	71	0.3738	0.7390	1818	0.51	0.6130
Intercept	72	-1.0508	0.6447	1818	-1.63	0.1033
Intercept	73	-0.1111	0.6890	1818	-0.16	0.8719
Intercept	74	-1.3693	0.6028	1818	-2.27	0.0232
Intercept	75	0.3619	0.7414	1818	0.49	0.6256
Intercept	76	0.9408	0.8255	1818	1.14	0.2546
Intercept	77	1.7099	0.9805	1818	1.74	0.0814
Intercept	78	-0.1351	0.6936	1818	-0.19	0.8456
Intercept	79	-2.3041	0.5660	1818	-4.07	<.0001
Intercept	80	-1.8136	0.5888	1818	-3.08	0.0021
Intercept	81	1.7099	0.9805	1818	1.74	0.0814
Intercept	82	-0.5989	0.6672	1818	-0.90	0.3695
Intercept	83	-0.9451	0.6293	1818	-1.50	0.1333
Intercept	84	-0.1192	0.6905	1818	-0.17	0.8630
Intercept	85	0.3451	0.7453	1818	0.46	0.6434
Intercept	86	-0.07986	0.6822	1818	-0.12	0.9068
Intercept	87	0.9362	0.8265	1818	1.13	0.2575
Intercept	88	-0.8842	0.6205	1818	-1.43	0.1543
Intercept	89	-0.4712	0.6411	1818	-0.74	0.4624
Intercept	90	0.9408	0.8255	1818	1.14	0.2546
Intercept	91	-0.4712	0.6411	1818	-0.74	0.4624
Intercept	92	0.9362	0.8265	1818	1.13	0.2575
Intercept	93	-0.1657	0.7008	1818	-0.24	0.8131
Intercept	94	0.3800	0.7377	1818	0.52	0.6066
Intercept	95	-0.6789	0.6839	1818	-0.99	0.3210
Intercept	96	1.7099	0.9805	1818	1.74	0.0814

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr >  t
Intercept	97	0.2731	0.7625	1818	0.36	0.7203
Intercept	98	-0.3373	0.6834	1818	-0.49	0.6216
Intercept	99	0.3800	0.7377	1818	0.52	0.6066
Intercept	100	0.3800	0.7377	1818	0.52	0.6066
Intercept	101	-1.1278	0.6205	1818	-1.82	0.0693
Intercept	102	-1.0695	0.6058	1818	-1.77	0.0777
Intercept	103	0.3077	0.7543	1818	0.41	0.6834
Intercept	104	1.7099	0.9805	1818	1.74	0.0814
Intercept	105	-1.4746	0.5674	1818	-2.60	0.0094
Intercept	106	0.9461	0.8244	1818	1.15	0.2512
Intercept	107	1.7099	0.9805	1818	1.74	0.0814
Intercept	108	-1.1717	0.5878	1818	-1.99	0.0464
Intercept	109	-0.1351	0.6936	1818	-0.19	0.8456
Intercept	110	0.3432	0.7458	1818	0.46	0.6455
Intercept	111	-0.9451	0.6293	1818	-1.50	0.1333
Intercept	112	1.7099	0.9805	1818	1.74	0.0814
Intercept	113	-0.7237	0.7086	1818	-1.02	0.3072
Intercept	114	-0.1101	0.6887	1818	-0.16	0.8730
Intercept	115	1.7099	0.9805	1818	1.74	0.0814
Intercept	116	1.7099	0.9805	1818	1.74	0.0814
Intercept	117	-1.4671	0.6126	1818	-2.39	0.0167
Intercept	118	-0.9219	0.6257	1818	-1.47	0.1408
Intercept	119	-0.4981	0.6464	1818	-0.77	0.4410
Intercept	120	1.7099	0.9805	1818	1.74	0.0814
Intercept	121	1.7099	0.9805	1818	1.74	0.0814
Intercept	122	-0.7471	0.6542	1818	-1.14	0.2536
Intercept	123	-0.4712	0.6411	1818	-0.74	0.4624
Intercept	124	-1.0682	0.6523	1818	-1.64	0.1017
Intercept	125	-1.4740	0.6138	1818	-2.40	0.0164
Intercept	126	-0.1213	0.6911	1818	-0.18	0.8607
Intercept	127	-0.3007	0.6936	1818	-0.43	0.6647
Intercept	128	1.7099	0.9805	1818	1.74	0.0814
Intercept	129	-2.0999	0.5667	1818	-3.71	0.0002
Intercept	130	-0.9300	0.6287	1818	-1.48	0.1393
Intercept	131	-0.9135	0.6242	1818	-1.46	0.1435
Intercept	132	-0.4712	0.6411	1818	-0.74	0.4624
Intercept	133	-1.1177	0.6126	1818	-1.82	0.0682
Intercept	134	-0.1487	0.6971	1818	-0.21	0.8311
Intercept	135	1.7099	0.9805	1818	1.74	0.0814
Intercept	136	-1.1080	0.6513	1818	-1.70	0.0891
Intercept	137	0.3094	0.7538	1818	0.41	0.6815
Intercept	138	-0.08596	0.6834	1818	-0.13	0.8999
Intercept	139	-0.6615	0.6973	1818	-0.95	0.3430
Intercept	140	-0.7839	0.7082	1818	-1.11	0.2685
Intercept	141	-4.6224	0.5738	1818	-8.06	<.0001
Intercept	142	-1.6874	0.6220	1818	-2.71	0.0067
Intercept	143	1.7099	0.9805	1818	1.74	0.0814
Intercept	144	-1.8616	0.5639	1818	-3.30	0.0010
Intercept	145	-1.1697	0.5875	1818	-1.99	0.0466
Intercept	146	-0.5103	0.6487	1818	-0.79	0.4316
Intercept	147	0.05971	0.7606	1818	0.08	0.9374
Intercept	148	0.3800	0.7377	1818	0.52	0.6066
Intercept	149	1.7099	0.9805	1818	1.74	0.0814
Intercept	150	0.07788	0.7674	1818	0.10	0.9192
Intercept	151	1.7099	0.9805	1818	1.74	0.0814
Intercept	152	-0.6791	0.6839	1818	-0.99	0.3209
Intercept	153	-0.1493	0.7534	1818	-0.20	0.8430
Intercept	154	0.3619	0.7414	1818	0.49	0.6256
Intercept	155	-1.5717	0.6123	1818	-2.57	0.0103
Intercept	156	1.7099	0.9805	1818	1.74	0.0814
Intercept	157	-0.07986	0.6822	1818	-0.12	0.9068
Intercept	158	-1.8773	0.5643	1818	-3.33	0.0009
Intercept	159	-1.6613	0.5921	1818	-2.81	0.0051
Intercept	160	-1.0333	0.6413	1818	-1.61	0.1073
Intercept	161	-1.7972	0.5859	1818	-3.07	0.0022

Solution for Random Effects						
Effect	Subject	Estimate	Std Err Pred	DF	t Value	Pr >  t
Intercept	162	-0.9913	0.6347	1818	-1.56	0.1185
Intercept	163	0.9362	0.8265	1818	1.13	0.2575
Intercept	164	-0.1351	0.6936	1818	-0.19	0.8456
Intercept	165	-0.2545	0.7860	1818	-0.32	0.7462
Intercept	166	-1.1080	0.6513	1818	-1.70	0.0891