

**(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS**

1

The Mixed Procedure

Model Information	
Data Set	WORK.DENT1
Dependent Variable	distance
Covariance Structures	Unstructured, Variance Components
Subject Effects	child, child
Group Effect	gender
Estimation Method	REML
Residual Variance Method	None
Fixed Effects SE Method	Model-Based
Degrees of Freedom Method	Containment

Class Level Information		
Class	Levels	Values
child	27	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27
gender	2	0 1

Dimensions	
Covariance Parameters	5
Columns in X	4
Columns in Z per Subject	2
Subjects	27
Max Obs per Subject	4

Number of Observations	
Number of Observations Read	108
Number of Observations Used	108
Number of Observations Not Used	0

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
0	1	483.55911746	
1	2	425.07172623	1.00351108
2	1	421.87757861	1.06757822
3	1	413.68636786	0.02193376
4	2	412.98764556	0.00990989
5	1	411.68834369	0.00132697

**(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS**

2

The Mixed Procedure

Iteration History			
Iteration	Evaluations	-2 Res Log Like	Criterion
6	1	411.52714244	0.00004131
7	1	411.52248586	0.00000005
8	1	411.52247985	0.00000000

Convergence criteria met.

Estimated G Matrix				
Row	Effect	child	Col1	Col2
1	Intercept	1	3.8914	-0.1552
2	age	1	-0.1552	0.02450

Estimated G Correlation Matrix				
Row	Effect	child	Col1	Col2
1	Intercept	1	1.0000	-0.5027
2	age	1	-0.5027	1.0000

Estimated V Matrix for child 1				
Row	Col1	Col2	Col3	Col4
1	3.4197	3.0574	3.1389	3.2205
2	3.0574	3.6808	3.4164	3.5960
3	3.1389	3.4164	4.1379	3.9715
4	3.2205	3.5960	3.9715	4.7909

Estimated V Correlation Matrix for child 1				
Row	Col1	Col2	Col3	Col4
1	1.0000	0.8618	0.8344	0.7956
2	0.8618	1.0000	0.8754	0.8563
3	0.8344	0.8754	1.0000	0.8920
4	0.7956	0.8563	0.8920	1.0000

**(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS**

3

The Mixed Procedure

Estimated V Matrix for child 12				
Row	Col1	Col2	Col3	Col4
1	5.6314	3.0574	3.1389	3.2205
2	3.0574	5.8925	3.4164	3.5960
3	3.1389	3.4164	6.3495	3.9715
4	3.2205	3.5960	3.9715	7.0025

Estimated V Correlation Matrix for child 12				
Row	Col1	Col2	Col3	Col4
1	1.0000	0.5308	0.5249	0.5128
2	0.5308	1.0000	0.5585	0.5598
3	0.5249	0.5585	1.0000	0.5956
4	0.5128	0.5598	0.5956	1.0000

Covariance Parameter Estimates			
Cov Parm	Subject	Group	Estimate
UN(1,1)	child		3.8914
UN(2,1)	child		-0.1552
UN(2,2)	child		0.02450
Residual	child	gender 0	0.4439
Residual	child	gender 1	2.6555

Fit Statistics	
-2 Res Log Likelihood	411.5
AIC (Smaller is Better)	421.5
AICC (Smaller is Better)	422.1
BIC (Smaller is Better)	428.0

Null Model Likelihood Ratio Test		
DF	Chi-Square	Pr > ChiSq
4	72.04	<.0001

**(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS**

4

The Mixed Procedure

Solution for Fixed Effects						
Effect	gender	Estimate	Standard Error	DF	t Value	Pr > t
gender	0	17.3727	0.7797	54	22.28	<.0001
gender	1	16.3406	1.1353	54	14.39	<.0001
age*gender	0	0.4795	0.06515	54	7.36	<.0001
age*gender	1	0.7844	0.09914	54	7.91	<.0001

Solution for Random Effects						
Effect	child	Estimate	Std Err Pred	DF	t Value	Pr > t
Intercept	1	-0.4492	1.2634	54	-0.36	0.7235
age	1	-0.07173	0.1095	54	-0.65	0.5153
Intercept	2	-1.4037	1.2634	54	-1.11	0.2715
age	2	0.1610	0.1095	54	1.47	0.1474
Intercept	3	-1.0781	1.2634	54	-0.85	0.3972
age	3	0.1976	0.1095	54	1.80	0.0767
Intercept	4	1.7689	1.2634	54	1.40	0.1672
age	4	0.03477	0.1095	54	0.32	0.7521
Intercept	5	1.0543	1.2634	54	0.83	0.4077
age	5	-0.09939	0.1095	54	-0.91	0.3682
Intercept	6	-0.6451	1.2634	54	-0.51	0.6117
age	6	-0.07588	0.1095	54	-0.69	0.4914
Intercept	7	-0.09328	1.2634	54	-0.07	0.9414
age	7	0.03995	0.1095	54	0.36	0.7167
Intercept	8	2.1661	1.2634	54	1.71	0.0922
age	8	-0.1353	0.1095	54	-1.24	0.2219
Intercept	9	-0.1209	1.2634	54	-0.10	0.9241
age	9	-0.1243	0.1095	54	-1.13	0.2614
Intercept	10	-3.0949	1.2634	54	-2.45	0.0176
age	10	-0.08314	0.1095	54	-0.76	0.4510
Intercept	11	1.8959	1.2634	54	1.50	0.1393
age	11	0.1565	0.1095	54	1.43	0.1588
Intercept	12	1.3562	1.5868	54	0.85	0.3965
age	12	0.08962	0.1369	54	0.65	0.5156
Intercept	13	-0.8970	1.5868	54	-0.57	0.5742
age	13	-0.03952	0.1369	54	-0.29	0.7740

**(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS**

5

The Mixed Procedure

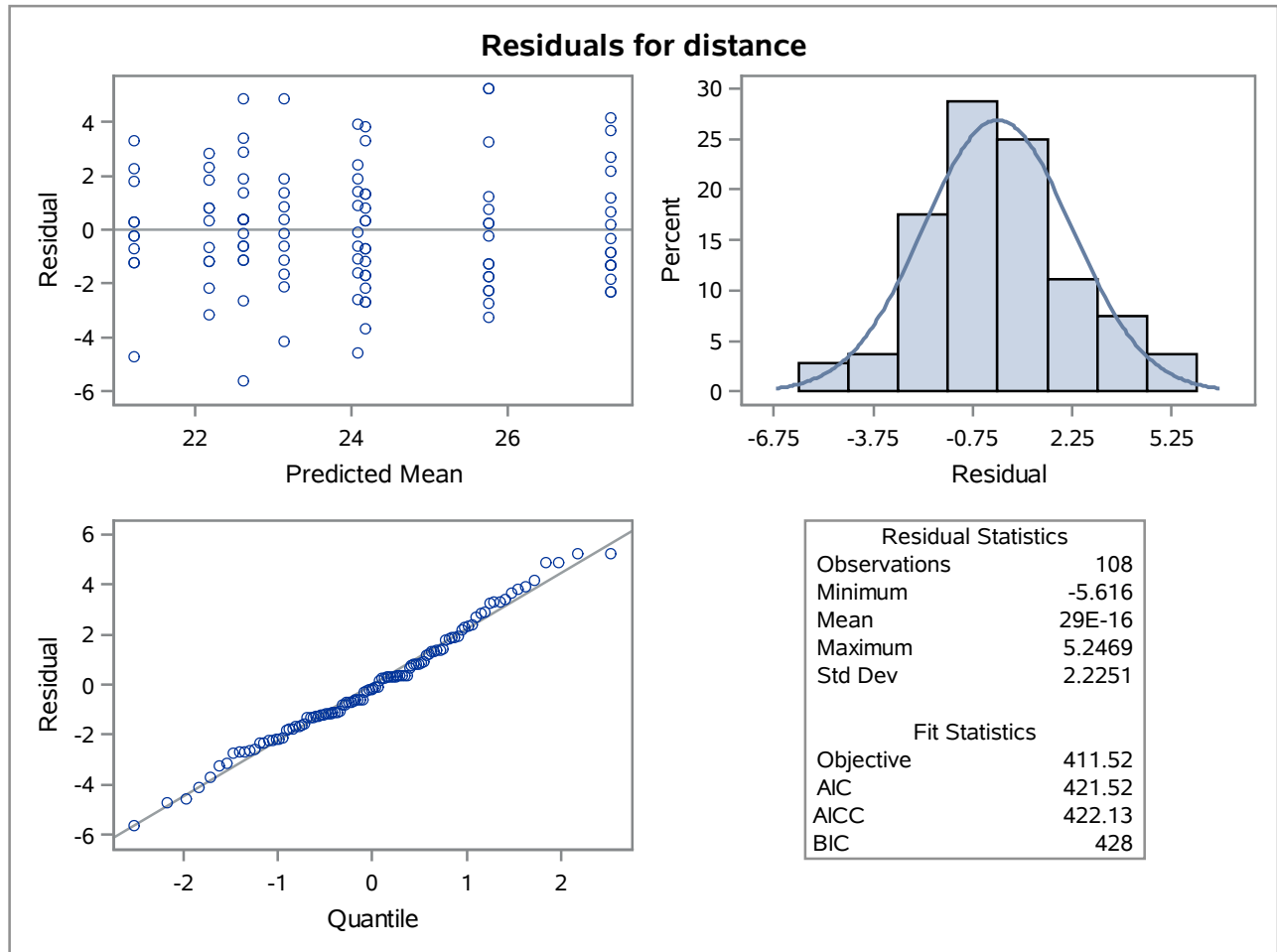
Solution for Random Effects						
Effect	child	Estimate	Std Err Pred	DF	t Value	Pr > t
Intercept	14	-0.3623	1.5868	54	-0.23	0.8203
age	14	-0.02199	0.1369	54	-0.16	0.8730
Intercept	15	1.8001	1.5868	54	1.13	0.2616
age	15	-0.04457	0.1369	54	-0.33	0.7461
Intercept	16	-1.2163	1.5868	54	-0.77	0.4467
age	16	-0.03814	0.1369	54	-0.28	0.7817
Intercept	17	0.9564	1.5868	54	0.60	0.5492
age	17	0.01860	0.1369	54	0.14	0.8925
Intercept	18	-0.7179	1.5868	54	-0.45	0.6528
age	18	-0.02707	0.1369	54	-0.20	0.8440
Intercept	19	-0.05077	1.5868	54	-0.03	0.9746
age	19	-0.08287	0.1369	54	-0.61	0.5476
Intercept	20	-0.1780	1.5868	54	-0.11	0.9111
age	20	0.03012	0.1369	54	0.22	0.8267
Intercept	21	2.6359	1.5868	54	1.66	0.1025
age	21	0.1039	0.1369	54	0.76	0.4512
Intercept	22	-0.1235	1.5868	54	-0.08	0.9383
age	22	-0.09578	0.1369	54	-0.70	0.4873
Intercept	23	-0.7127	1.5868	54	-0.45	0.6551
age	23	0.01259	0.1369	54	0.09	0.9271
Intercept	24	-2.0444	1.5868	54	-1.29	0.2031
age	24	0.1440	0.1369	54	1.05	0.2976
Intercept	25	0.3100	1.5868	54	0.20	0.8458
age	25	-0.03813	0.1369	54	-0.28	0.7817
Intercept	26	0.04007	1.5868	54	0.03	0.9799
age	26	0.06886	0.1369	54	0.50	0.6171
Intercept	27	-0.7958	1.5868	54	-0.50	0.6181
age	27	-0.07964	0.1369	54	-0.58	0.5632

Type 3 Tests of Fixed Effects				
Effect	Num DF	Den DF	F Value	Pr > F
gender	2	54	351.79	<.0001
age*gender	2	54	58.38	<.0001

**(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS**

6

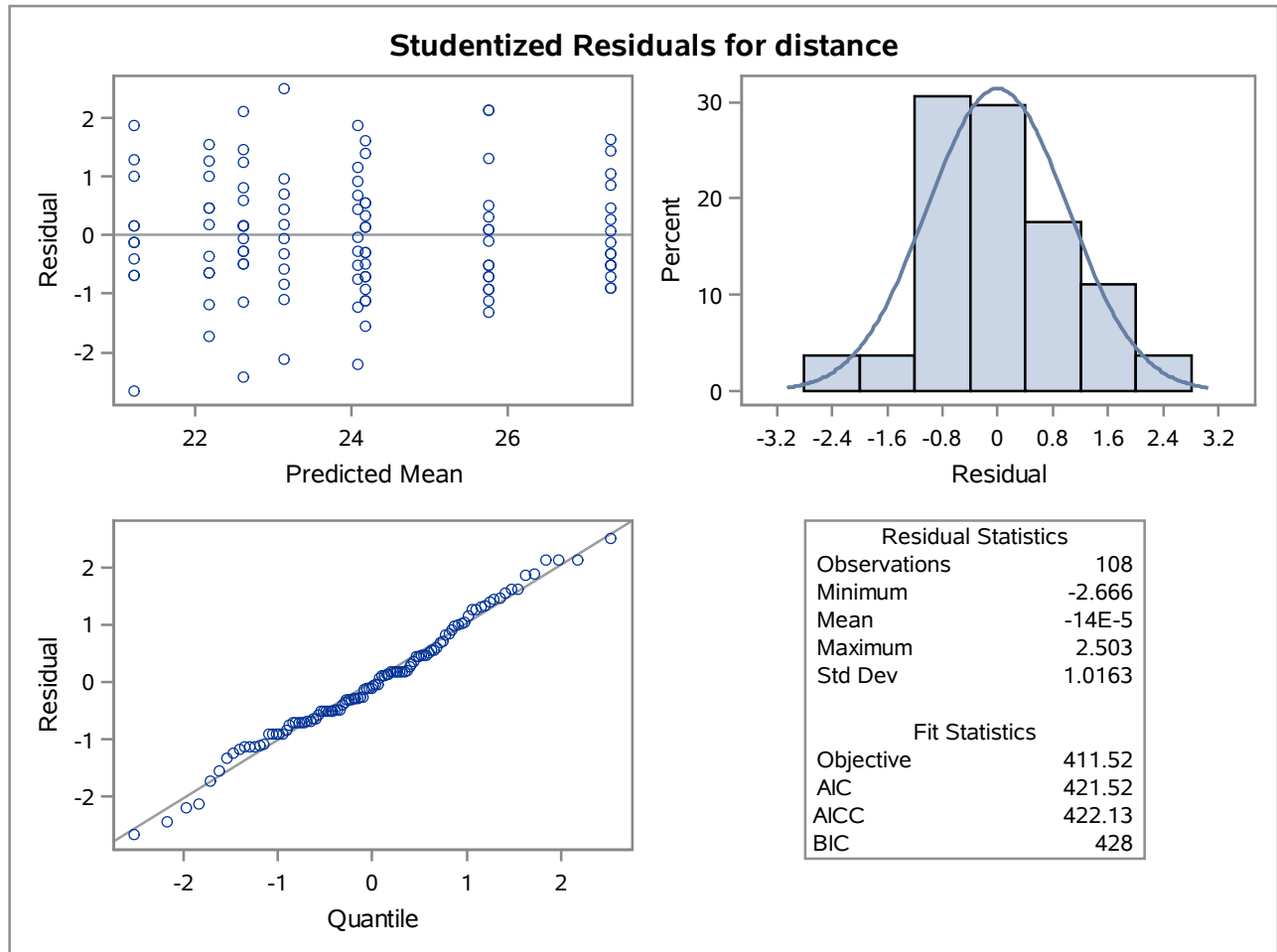
The Mixed Procedure



(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
 WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
 SAME D MATRIX FOR BOTH GENDERS

7

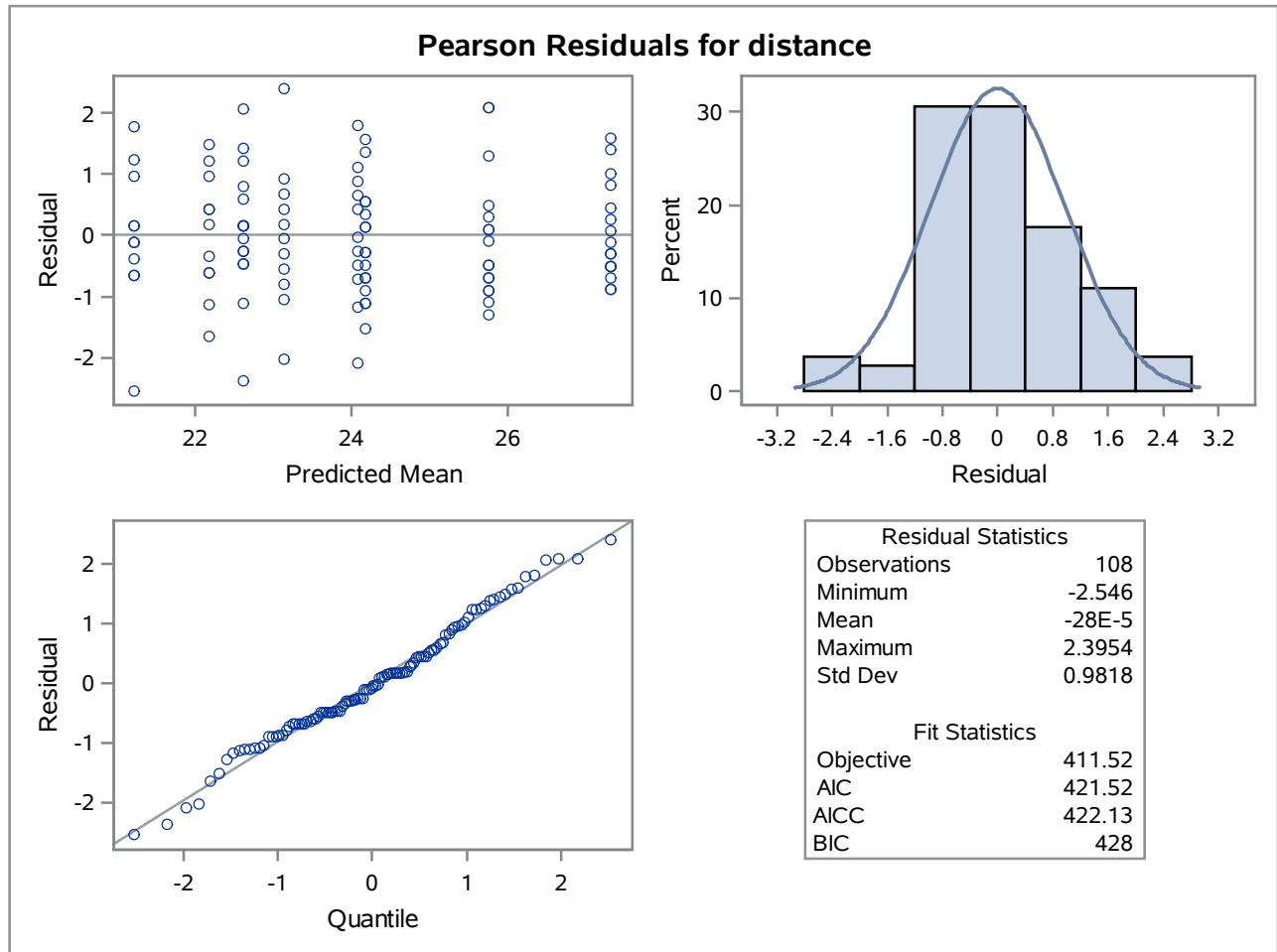
The Mixed Procedure



(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS

8

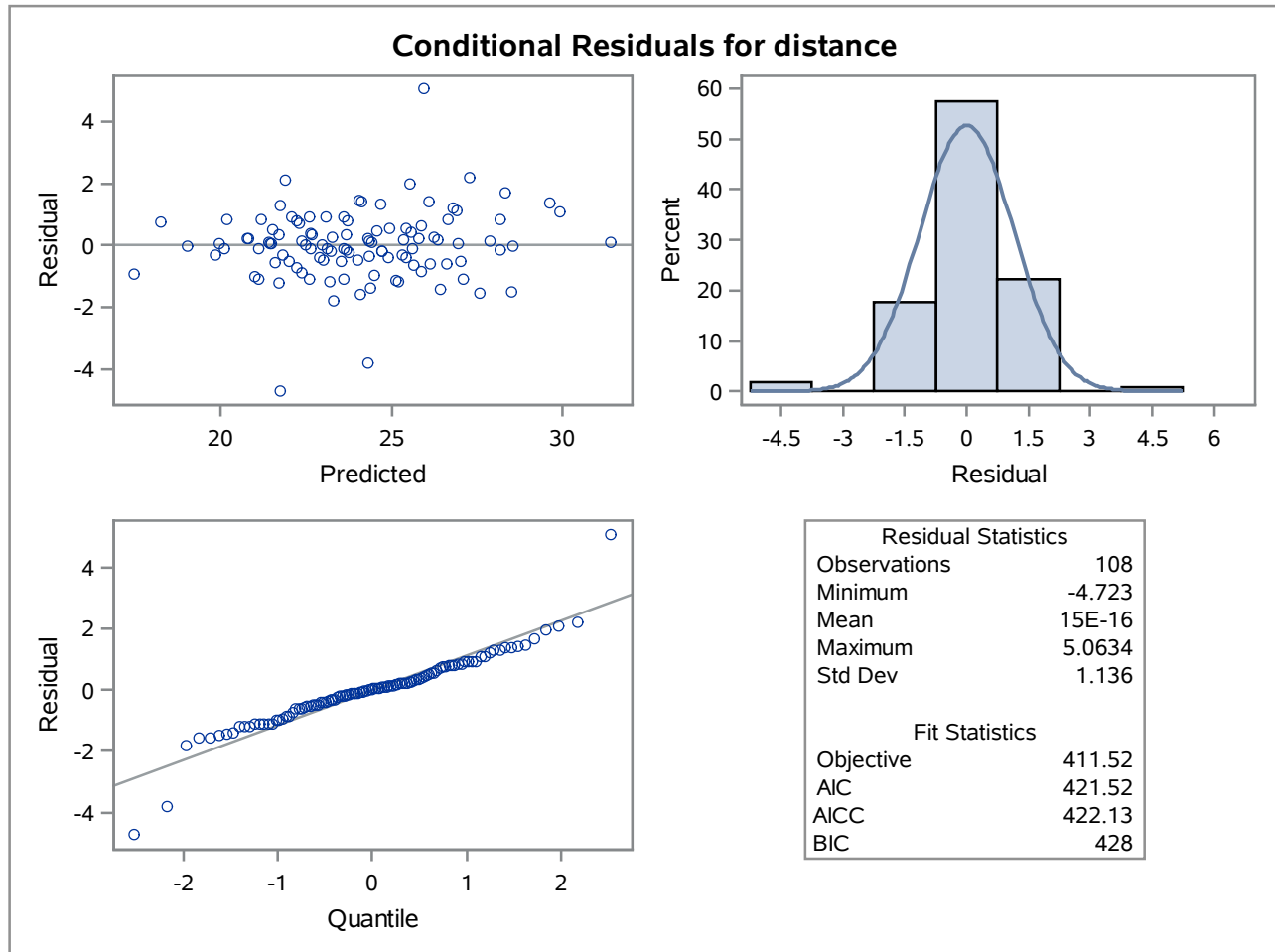
The Mixed Procedure



(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS

9

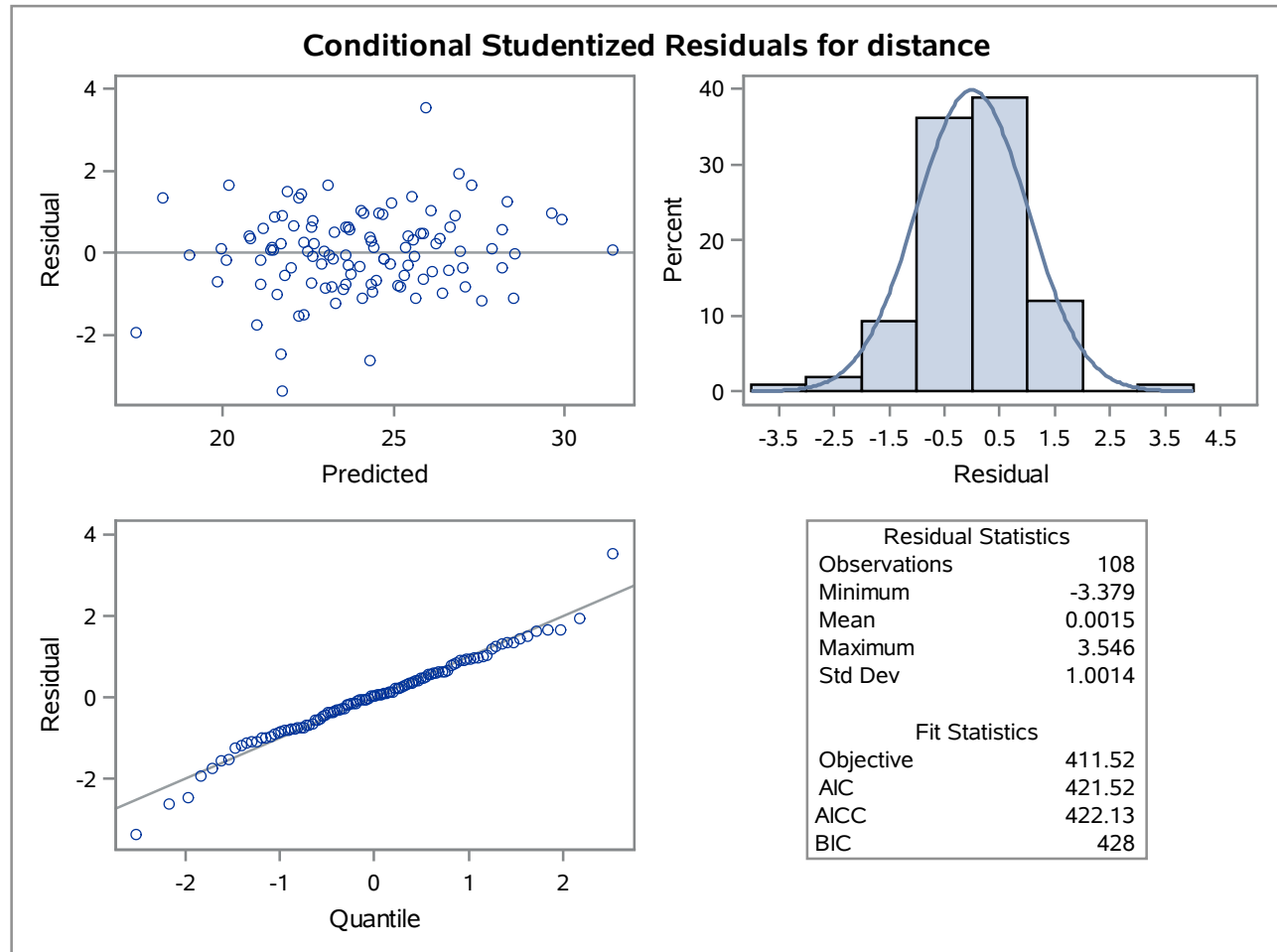
The Mixed Procedure



(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS

10

The Mixed Procedure



(b) DIAGONAL WITHIN-CHILD COVARIANCE MATRIX R_i
WITH SEPARATE CONSTANT VARIANCE FOR EACH GENDER
SAME D MATRIX FOR BOTH GENDERS

11

The Mixed Procedure

