Alscal

```
Alscal Procedure Options



Data Options-

Number of Rows (Observations/Matrix).   10
Number of Columns (Variables) . . . .   10
Number of Matrices   . . . . . . . .    18
Measurement Level . . . . . . . . .     Ratio
Data Matrix Shape . . . . . . . . .     Symmetric
Type  . . . . . . . . . . . . . . .     Dissimilarity
Approach to Ties  . . . . . . . . .     Leave Tied
Conditionality . . . . . . . . . .      Matrix
Data Cutoff at . . . . . . . . . .       .000000


Model Options-

Model . . . . . . . . . . . .           Indscal

>Note # 14697
>You have requested a solution with one dimension in a weighted model.
>Subject weights are undefined in a one dimensional model.  ALSCAL continues
>the analysis with a minimum of two dimensions in the solution.

Maximum Dimensionality  . . . . . .     5
Minimum Dimensionality  . . . . . .     2
Negative Weights  . . . . . . . . .     Not Permitted


Output Options-

Job Option Header . . . . . . . . .     Printed
Data Matrices  . . . . . . . . . .      Not Printed
Configurations and Transformations  .   Plotted
Output Dataset . . . . . . . . . .      Not Created
Initial Stimulus Coordinates  . . .     Computed
Initial Subject Weights . . . . . .     Computed


Algorithmic Options-

Maximum Iterations   . . . . . . .         50
Convergence Criterion   . . . . . .      .00100
Minimum S-stress  . . . . . . . . .      .00100
Missing Data Estimated by  . . . .      Ulbounds
```

Iteration history for the 5 dimensional solution (in squared distances)

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
0	.28986	
1	.28986	
2	.28010	.00976
3	.27967	.00043

Iterations stopped because
S-stress improvement is less than .001000

Stress and squared correlation (RSQ) in distances

RSQ values are the proportion of variance of the scaled data (disparities)
in the partition (row, matrix, or entire data) which
is accounted for by their corresponding distances.
Stress values are Kruskal's stress formula 1.

Matrix	Stress	RSQ	Matrix	Stress	RSQ
1	.272	.531	2	.182	.493
3	.213	.609	4	.138	.754
5	.160	.620	6	.184	.780
7	.130	.760	8	.154	.589
9	.179	.568	10	.262	.653
11	.147	.661	12	.180	.581
13	.251	.597	14	.133	.687
15	.181	.457	16	.194	.618
17	.096	.792	18	.371	.595

Averaged (rms) over matrices
Stress = .20068 RSQ = .63034

Configuration derived in 5 dimensions

Stimulus Coordinates

Stimulus Number	Stimulus Name	Dimension 1	2	3	4	5
1	var1	-1.3140	-.4157	.0685	.2934	-1.5844
2	var2	-1.4977	-.5952	.2087	.0142	.0737
3	var3	-.2242	-1.3106	.8731	.4455	1.0045
4	var4	.9367	.3319	-1.9322	1.2380	.0245
5	var5	1.0591	-.8439	-1.4602	.5274	.8825
6	var6	.9115	.6002	.1087	-1.3124	-1.8285
7	var7	-.3539	1.5602	.3400	-1.3230	1.4072
8	var8	.8879	.7909	1.7578	1.7202	-.4131
9	var9	.8352	-1.3829	.2479	-1.1079	.4488
10	var10	-1.2405	1.2652	-.2122	-.4954	-.0152

Subject weights measure the importance of each dimension to each subject.
Squared weights sum to RSQ.

A subject with weights proportional to the average weights has a weirdness of zero, the minimum value.
A subject with one large weight and many low weights has a weirdness near one.
A subject with exactly one positive weight has a weirdness of one, the maximum value for nonnegative weights.

Subject Weights

Subject Number	Weird- ness	Dimension 1	2	3	4	5
1	.3663	.3570	.4525	.2060	.3854	.0899
2	.0575	.4356	.3502	.2648	.2428	.2270
3	.2548	.5336	.1805	.3112	.2975	.3263
4	.1328	.6568	.3521	.2938	.2274	.2457
5	.1504	.4042	.4371	.2997	.3535	.2264
6	.0451	.5523	.3927	.3639	.3389	.2714
7	.1038	.6141	.3545	.3556	.2435	.2668
8	.1738	.3671	.4711	.3328	.2759	.2127
9	.1577	.5134	.2497	.2830	.2869	.2826
10	.3380	.5602	.4852	.2631	.1603	.0960
11	.1922	.5461	.3043	.3536	.2089	.3183
12	.4862	.4928	.3990	.1031	.4085	.0405
13	.1507	.5958	.2660	.2864	.2100	.2119
14	.1346	.4964	.3460	.3571	.2962	.3255
15	.0852	.4067	.3307	.3027	.2424	.1773
16	.0973	.5047	.3234	.2984	.3411	.2319
17	.2787	.5341	.3666	.4120	.1853	.4097
18	.1898	.5587	.3232	.3278	.2329	.1302
Overall importance of each dimension:		.2639	.1316	.0949	.0798	.0600

Flattened Subject Weights

Subject Number	Plot Symbol	Variable 1	2	3	4
1	1	-1.4453	1.7093	-1.2865	1.9436
2	2	-.4108	.2980	-.1627	-.1473
3	3	.4040	-2.0333	.2897	.2910
4	4	1.4224	-.3202	-.4360	-.8167
5	5	-1.5458	.7539	-.1651	.8207
6	6	-.3834	-.1980	.3187	.2104
7	7	.6502	-.4175	.4504	-.7171
8	8	-1.8470	1.3307	.6589	-.0086
9	9	.2761	-1.1634	-.1322	.2315
10	A	1.1616	1.8360	-.3517	-1.3578
11	B	.2257	-.7546	.7761	-.9731
12	C	.7942	1.1854	-3.3706	2.4589
13	D	1.6338	-.8774	.0934	-.6958
14	E	-.7176	-.4801	.5205	-.0849
15	F	-.5844	.2253	.8720	-.0128
16	G	-.1801	-.4745	-.1203	.7204
17	H	-.5545	-.4381	1.1404	-1.4704
18	I	1.1010	-.1814	.9051	-.3921

Iteration history for the 4 dimensional solution (in squared distances)

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
0	.32730	
1	.32730	
2	.31119	.01611
3	.31036	.00084

Iterations stopped because
S-stress improvement is less than .001000

Stress and squared correlation (RSQ) in distances

RSQ values are the proportion of variance of the scaled data (disparities)
in the partition (row, matrix, or entire data) which
is accounted for by their corresponding distances.
Stress values are Kruskal's stress formula 1.

Matrix	Stress	RSQ	Matrix	Stress	RSQ
1	.287	.452	2	.194	.472
3	.206	.609	4	.147	.710
5	.191	.495	6	.195	.675
7	.151	.676	8	.179	.507
9	.205	.467	10	.259	.651
11	.186	.510	12	.176	.587
13	.228	.639	14	.186	.473
15	.195	.436	16	.221	.482
17	.158	.582	18	.368	.578

```
     Averaged (rms) over  matrices
Stress  =   .21363      RSQ =  .55569
```

Configuration derived in 4 dimensions

Stimulus Coordinates

Stimulus Number	Stimulus Name	Dimension 1	2	3	4
1	var1	-1.2027	-.4740	-.4474	-1.2619
2	var2	-1.3506	-.2598	-.8501	-.3264
3	var3	-.7378	1.2734	-.6031	-.1043
4	var4	1.8028	-.2243	-.8486	-.4819
5	var5	1.3229	.7652	-1.2422	.3061
6	var6	.6931	-.1881	1.7522	.7395
7	var7	-.3812	-1.3370	.7343	1.5864
8	var8	.4104	.7156	1.6800	-1.7806
9	var9	.0649	1.4579	-.1259	1.3152
10	var10	-.6216	-1.7291	-.0493	.0079

Subject weights measure the importance of each dimension to each subject.
Squared weights sum to RSQ.

A subject with weights proportional to the average weights has a weirdness of zero, the minimum value.
A subject with one large weight and many low weights has a weirdness near one.
A subject with exactly one positive weight has a weirdness of one, the maximum value for nonnegative weights.

Subject Weights

Subject Number	Weird-ness	Dimension 1	2	3	4
1	.2054	.2858	.4212	.3647	.2449
2	.0691	.4094	.3321	.3259	.2960
3	.2917	.5726	.1923	.3215	.3756
4	.1043	.5417	.4640	.3674	.2574
5	.0798	.3911	.3933	.3193	.2915
6	.0478	.5002	.4085	.4071	.3042
7	.0962	.5407	.4123	.3876	.2524
8	.0689	.4081	.4023	.3300	.2640
9	.1875	.4725	.2821	.2426	.3250
10	.1716	.4400	.4746	.4230	.2304
11	.0813	.4656	.3082	.3436	.2830
12	.3031	.3822	.4662	.2099	.4242
13	.2874	.6039	.3935	.3173	.1385
14	.0316	.4102	.3614	.3226	.2650
15	.0805	.3935	.3111	.3447	.2569
16	.0597	.4526	.3379	.2879	.2827
17	.0688	.5038	.3428	.3651	.2774
18	.0536	.4964	.3958	.3223	.2661
Overall importance of each dimension:		.2170	.1434	.1138	.0815

Flattened Subject Weights

Subject Number	Plot Symbol	Variable 1	2	3
1	1	-2.2254	1.4793	1.5071
2	2	-.3798	-.3219	.2703
3	3	1.6469	-2.9653	-.3552
4	4	.3287	.6447	-.1775
5	5	-.8228	.5826	-.0620
6	6	-.1913	-.1198	.6698
7	7	.4876	.0377	.4094
8	8	-.5940	.6892	.1377
9	9	.8859	-1.0353	-1.5428
10	A	-.8160	1.0722	1.2720
11	B	.3346	-.8769	.4752
12	C	-1.3215	1.3504	-2.9086
13	D	2.1765	.3203	-.4062
14	E	-.3463	.2040	.2149
15	F	-.3581	-.4496	1.0802
16	G	.3355	-.2120	-.6274
17	H	.4639	-.6379	.4701
18	I	.3959	.2382	-.4271

Iteration history for the 3 dimensional solution (in squared distances)

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
0	.38002	
1	.38002	
2	.36220	.01782
3	.36088	.00132
4	.36050	.00039

Iterations stopped because
S-stress improvement is less than .001000

Stress and squared correlation (RSQ) in distances

RSQ values are the proportion of variance of the scaled data (disparities)
in the partition (row, matrix, or entire data) which
is accounted for by their corresponding distances.
Stress values are Kruskal's stress formula 1.

Matrix	Stress	RSQ	Matrix	Stress	RSQ
1	.323	.320	2	.216	.464
3	.217	.571	4	.153	.731
5	.236	.391	6	.216	.585
7	.173	.654	8	.214	.456
9	.234	.419	10	.269	.558
11	.219	.453	12	.226	.454
13	.252	.543	14	.222	.433
15	.225	.413	16	.246	.429
17	.183	.599	18	.352	.540

Averaged (rms) over matrices
Stress = .23655 RSQ = .50073

Configuration derived in 3 dimensions

Stimulus Coordinates

Stimulus Number	Stimulus Name	Dimension 1	2	3
1	var1	-1.0479	.1705	-1.2750
2	var2	-1.2008	.7187	-.5288
3	var3	-.0462	1.2340	-.8558
4	var4	1.3042	-.0856	1.2987
5	var5	1.0699	1.0401	1.0439
6	var6	.6237	-1.6028	.1145
7	var7	-1.0336	-1.0525	1.1885
8	var8	1.0080	-1.0003	-1.7037
9	var9	.6385	1.2885	.3510
10	var10	-1.3158	-.7106	.3669

Subject weights measure the importance of each dimension to each subject.
Squared weights sum to RSQ.

A subject with weights proportional to the average weights has a weirdness of zero, the minimum value.
A subject with one large weight and many low weights has a weirdness near one.
A subject with exactly one positive weight has a weirdness of one, the maximum value for nonnegative weights.

Subject Weights

Subject Number	Weird-ness	Dimension 1	Dimension 2	Dimension 3
1	.2913	.3678	.3978	.1632
2	.0907	.4331	.4067	.3330
3	.1834	.4929	.3620	.4434
4	.0775	.6463	.4370	.3504
5	.0872	.4032	.3800	.2901
6	.0339	.5320	.4088	.3671
7	.0767	.6031	.4303	.3244
8	.1483	.3975	.4111	.3593
9	.1180	.4488	.3140	.3447
10	.0955	.5122	.4510	.3040
11	.0845	.4592	.3484	.3476
12	.0512	.4994	.3468	.2900
13	.3118	.6363	.3163	.1959
14	.0151	.4616	.3548	.3068
15	.0554	.4276	.3728	.3021
16	.0515	.4812	.3280	.2993
17	.0861	.5125	.4187	.4012
18	.1193	.5757	.3396	.3052
Overall importance of each dimension:		.2501	.1455	.1052

Flattened Subject Weights

Subject Number	Plot Symbol	Variable 1	Variable 2
1	1	-.3887	2.9390
2	2	-.9641	.7274
3	3	-.7418	-1.1133
4	4	.7925	-.4090
5	5	-.8283	.9262
6	6	-.1570	-.1986
7	7	.6501	-.0815
8	8	-1.5885	.8704
9	9	-.1888	-.9872
10	A	-.2112	.9751
11	B	-.3564	-.4966
12	C	.5504	-.3990
13	D	3.0189	-1.2053
14	E	-.0662	-.1082
15	F	-.5649	.4948
16	G	.4331	-.6516
17	H	-.6334	-.1529
18	I	1.2441	-1.1299

Iteration history for the 2 dimensional solution (in squared distances)

Young's S-stress formula 1 is used.

Iteration	S-stress	Improvement
0	.49012	
1	.49012	
2	.44321	.04691
3	.44042	.00279
4	.44033	.00010

Iterations stopped because
S-stress improvement is less than .001000

Stress and squared correlation (RSQ) in distances

RSQ values are the proportion of variance of the scaled data (disparities)
in the partition (row, matrix, or entire data) which
is accounted for by their corresponding distances.
Stress values are Kruskal's stress formula 1.

Matrix	Stress	RSQ	Matrix	Stress	RSQ
1	.358	.274	2	.297	.353
3	.302	.378	4	.237	.588
5	.308	.308	6	.282	.450
7	.247	.547	8	.302	.332
9	.320	.271	10	.280	.535
11	.299	.341	12	.301	.343
13	.292	.455	14	.302	.328
15	.290	.371	16	.311	.327
17	.281	.433	18	.370	.443

Averaged (rms) over matrices
Stress = .30043 RSQ = .39323

Configuration derived in 2 dimensions

Stimulus Coordinates

Stimulus Number	Stimulus Name	Dimension 1	Dimension 2
1	var1	.6077	1.2221
2	var2	.3501	1.3025
3	var3	-.6334	.9673
4	var4	-1.1740	-.9958
5	var5	-1.4989	-.1782
6	var6	.5022	-1.3253
7	var7	1.4608	-.1062
8	var8	.3209	-1.6578
9	var9	-1.1906	.2491
10	var10	1.2552	.5224

Subject weights measure the importance of each dimension to each subject.
Squared weights sum to RSQ.

A subject with weights proportional to the average weights has a weirdness of zero, the minimum value.
A subject with one large weight and many low weights has a weirdness near one.
A subject with exactly one positive weight has a weirdness of one, the maximum value for nonnegative weights.

Subject Weights

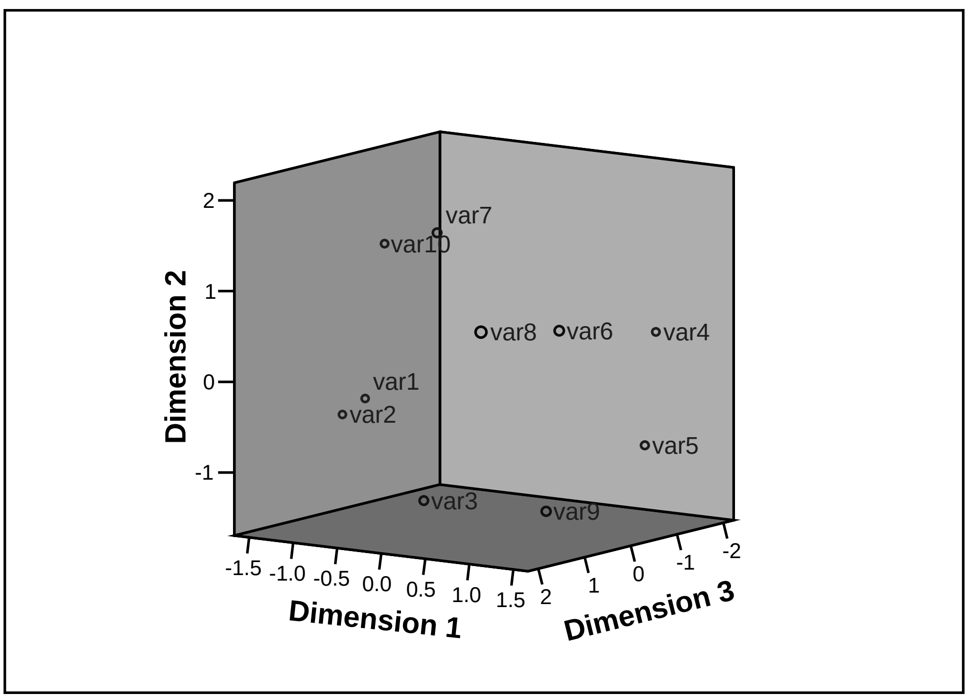
Subject Number	Weird-ness	Dimension 1	2
1	.0163	.3864	.3534
2	.0034	.4322	.4077
3	.1527	.3946	.4717
4	.0322	.5724	.5106
5	.0138	.4089	.3755
6	.0052	.4876	.4612
7	.0169	.5458	.4988
8	.0801	.4438	.3671
9	.0899	.3537	.3824
10	.0249	.5235	.5108
11	.0902	.3966	.4290
12	.0678	.4476	.3776
13	.0142	.4969	.4560
14	.0325	.4273	.3810
15	.0263	.4356	.4260
16	.0037	.4183	.3902
17	.0204	.4724	.4578
18	.1187	.5253	.4086
Overall importance of each dimension:		.2094	.1838

Flattened Subject Weights

Subject Number	Plot Symbol	Variable 1
1	1	.2788
2	2	-.0368
3	3	-2.4539
4	4	.5337
5	5	.2387
6	6	-.0662
7	7	.2872
8	8	1.3014
9	9	-1.4304
10	A	-.3836
11	B	-1.4357
12	C	1.1033
13	D	.2440
14	E	.5377
15	F	-.4048
16	G	.0767
17	H	-.3112
18	I	1.9210

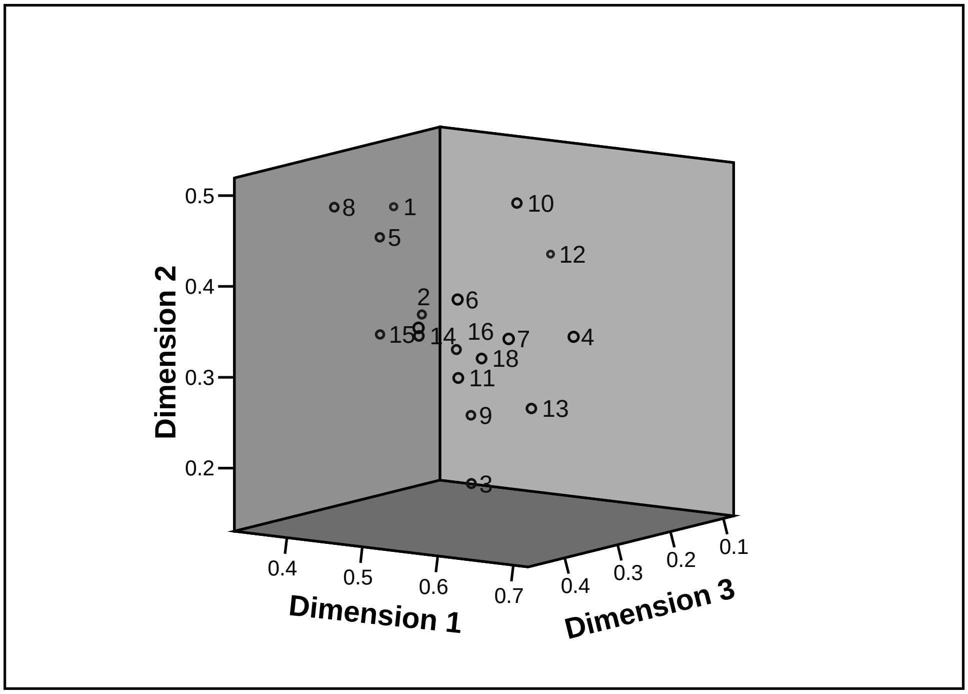
Derived Stimulus Configuration

Individual differences (weighted) Euclidean distance model



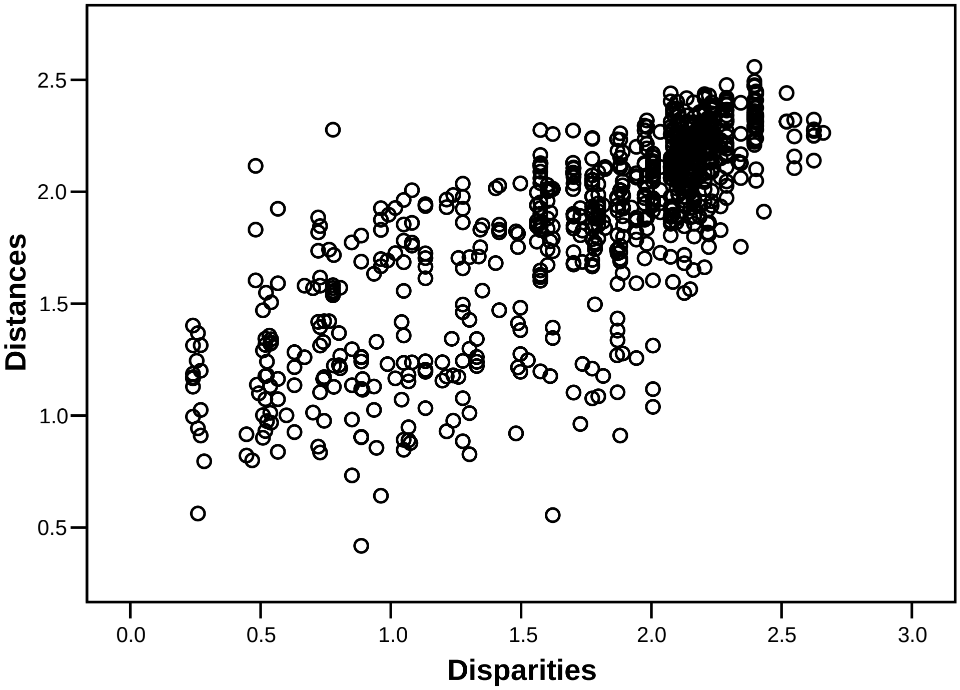
Derived Subject Weights

Individual differences (weighted) Euclidean distance model



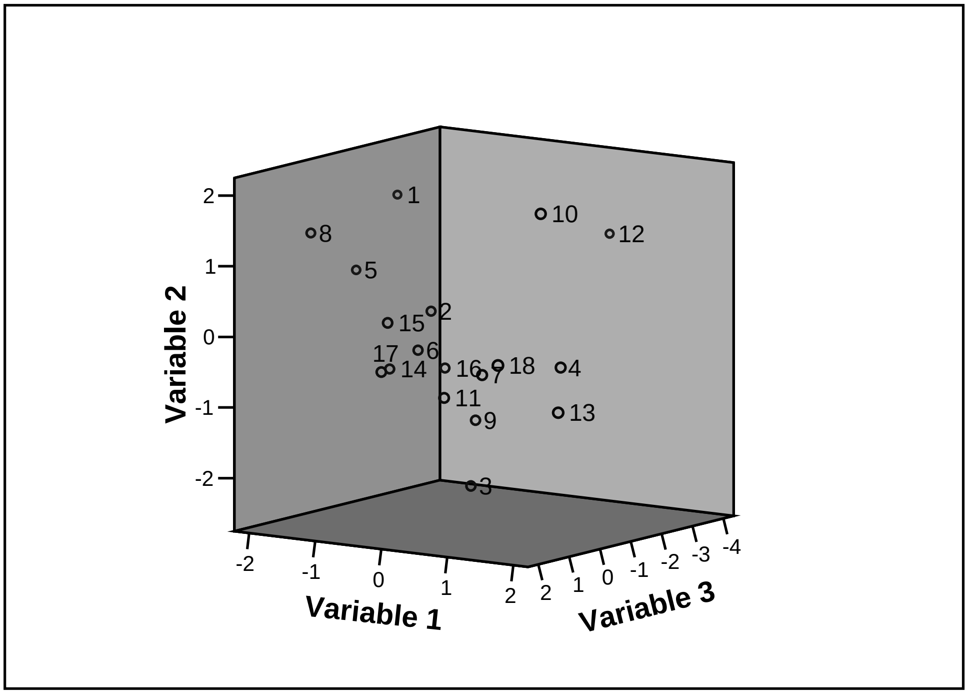
Scatterplot of Linear Fit

Individual differences (weighted) Euclidean distance model



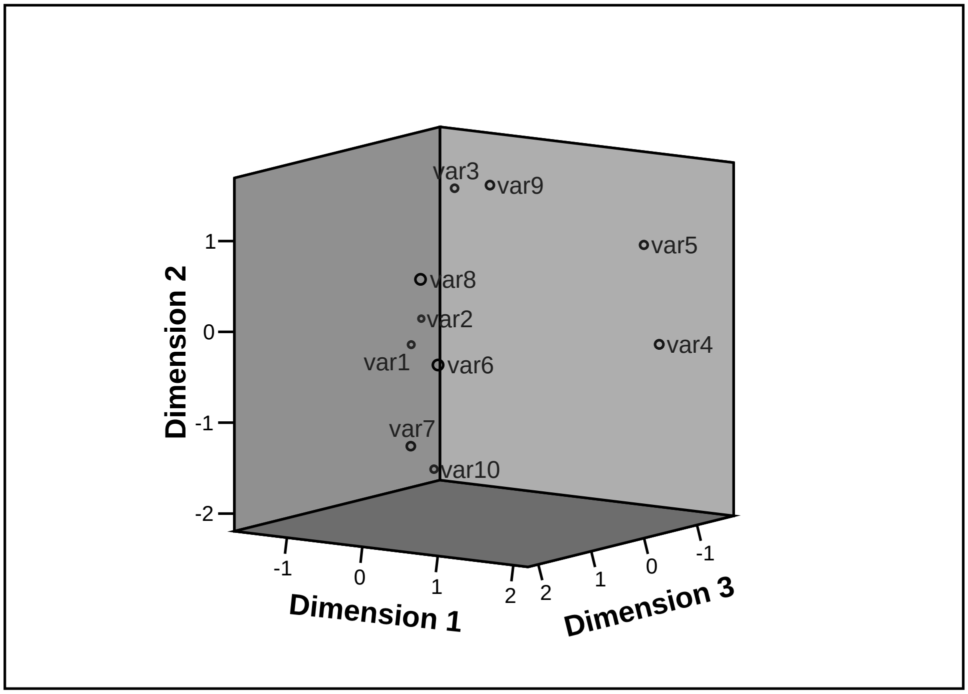
Flattened Subject Weights

Individual differences (weighted) Euclidean distance model



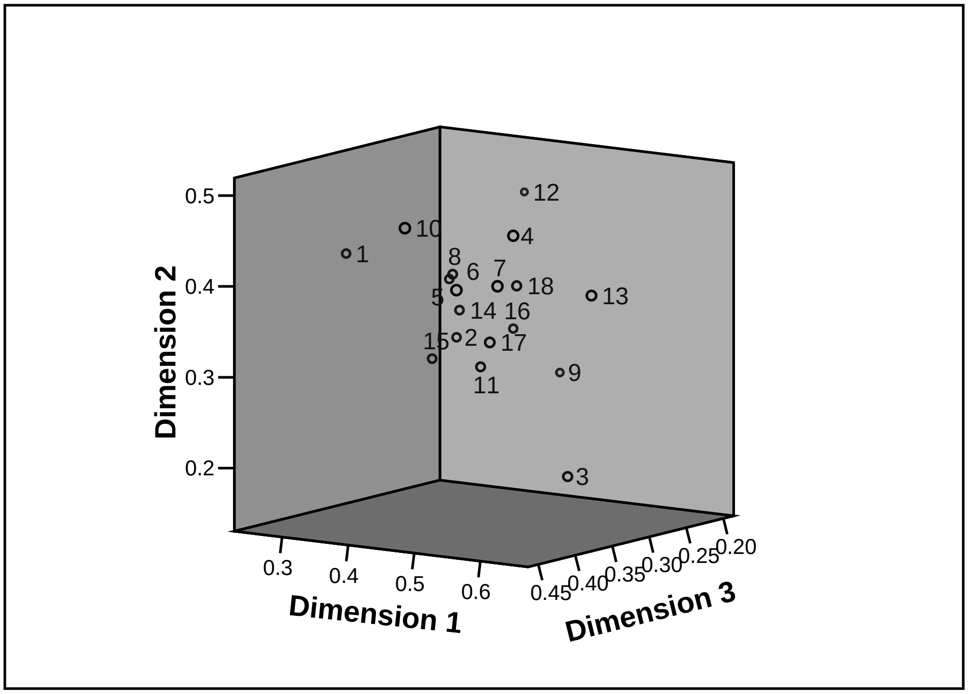
Derived Stimulus Configuration

Individual differences (weighted) Euclidean distance model

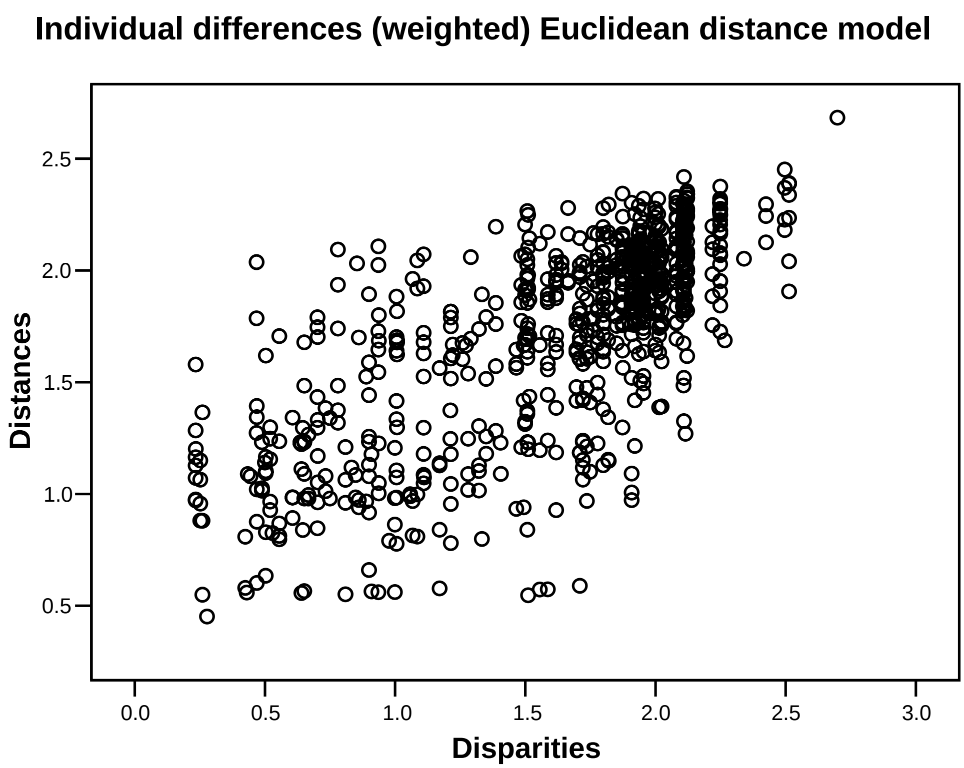


Derived Subject Weights

Individual differences (weighted) Euclidean distance model

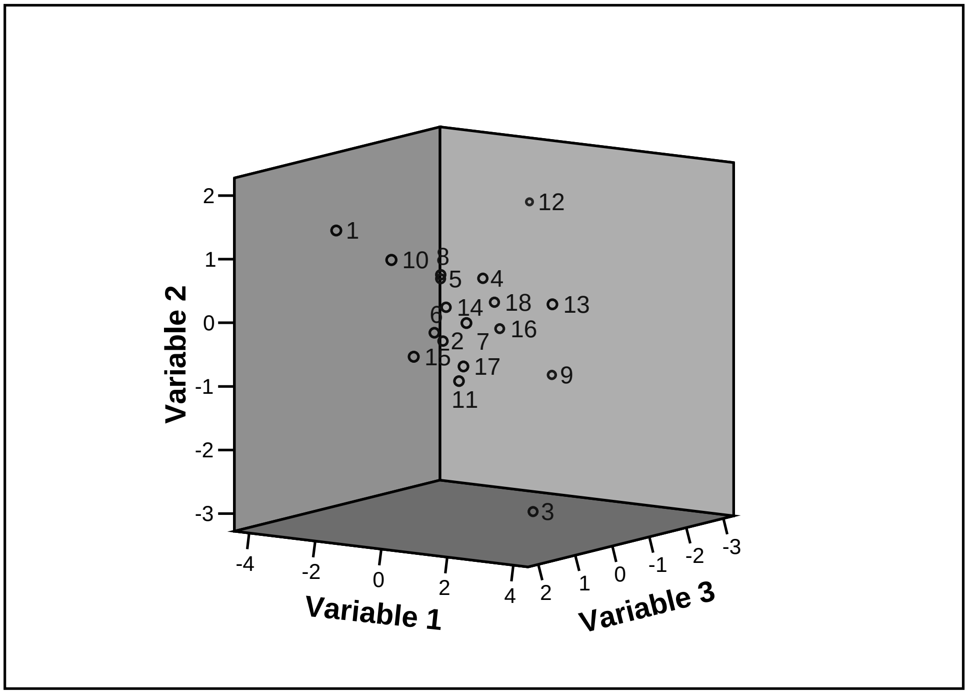


Scatterplot of Linear Fit



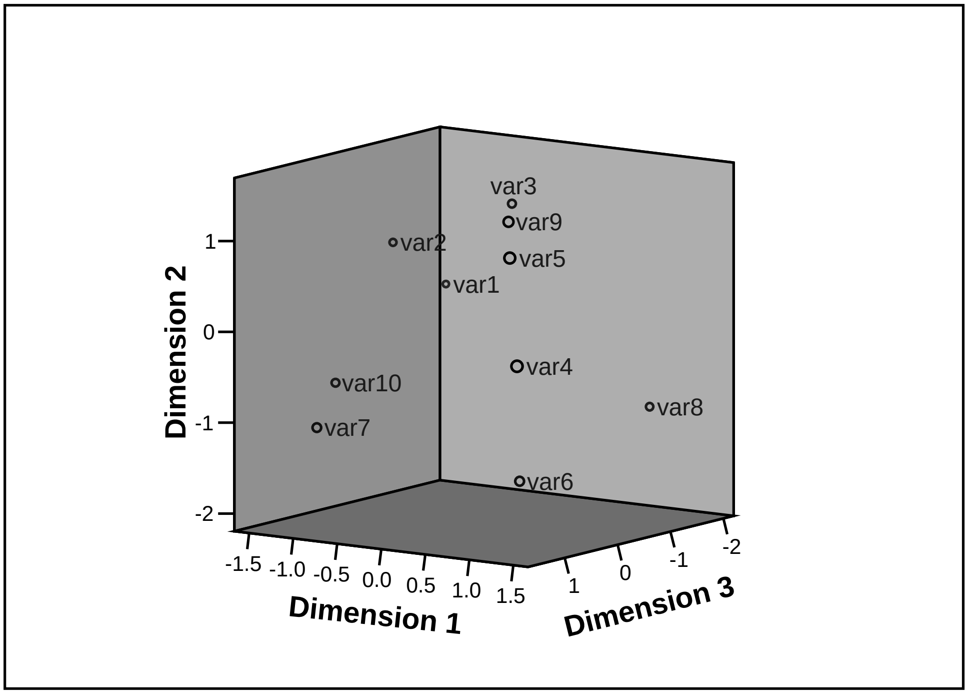
Flattened Subject Weights

Individual differences (weighted) Euclidean distance model



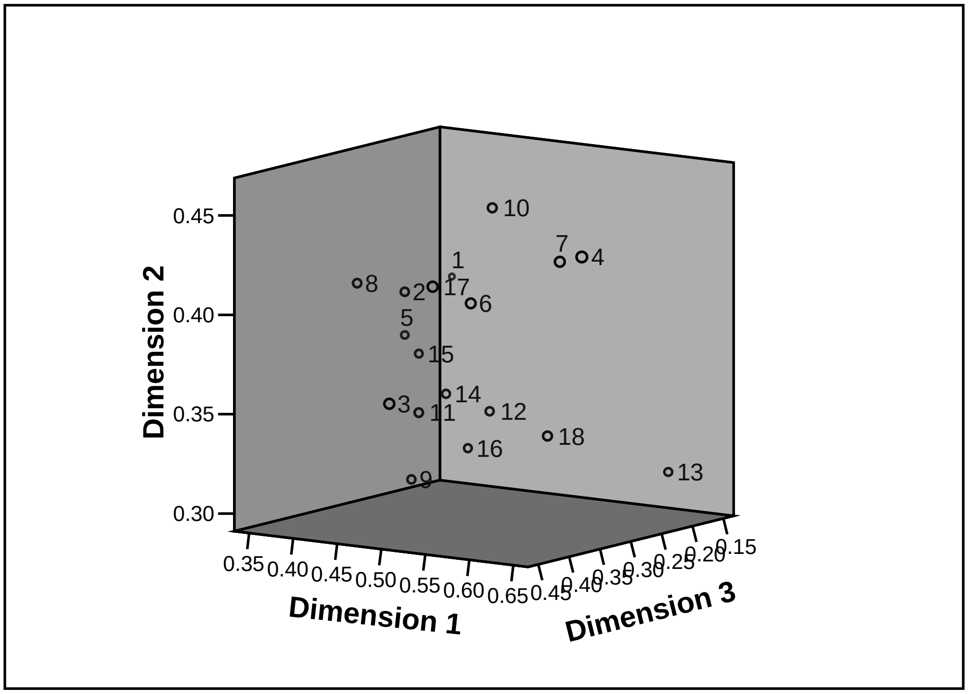
Derived Stimulus Configuration

Individual differences (weighted) Euclidean distance model



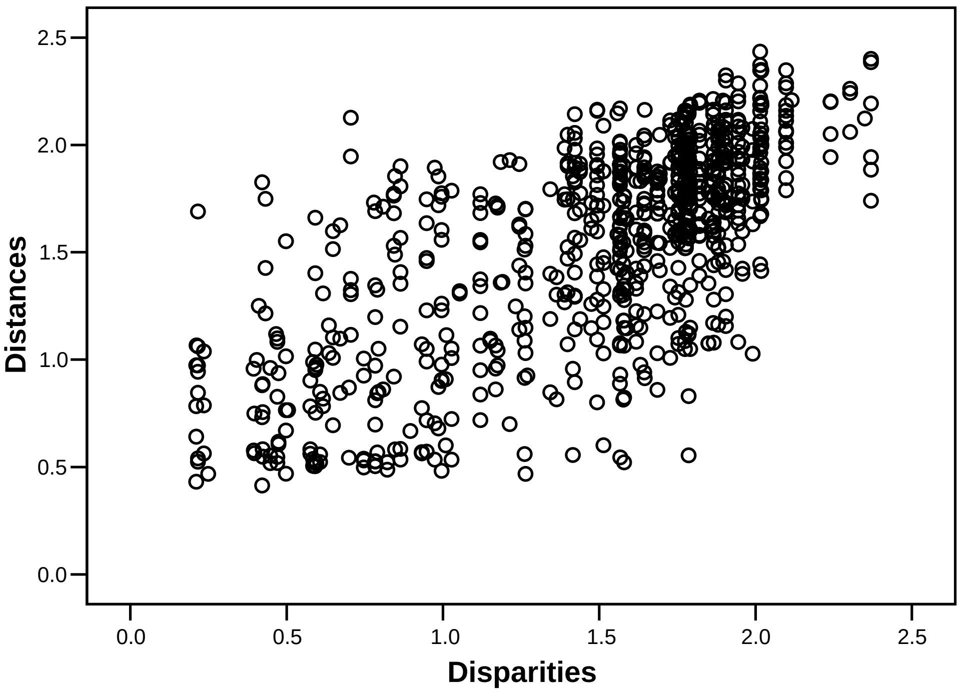
Derived Subject Weights

Individual differences (weighted) Euclidean distance model

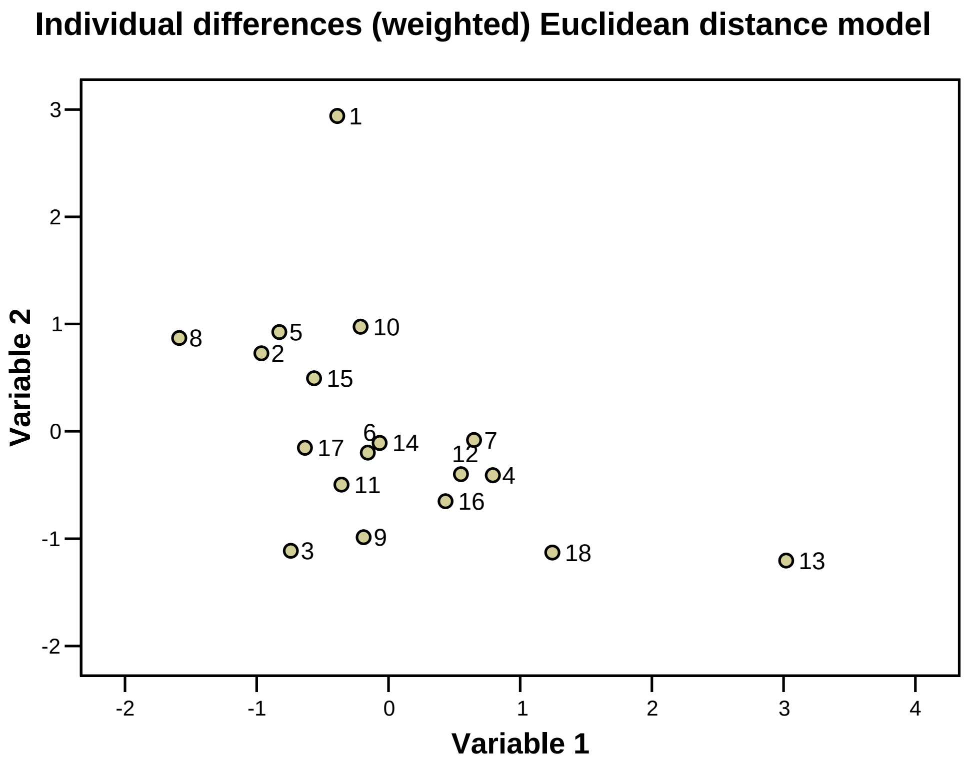


Scatterplot of Linear Fit

Individual differences (weighted) Euclidean distance model

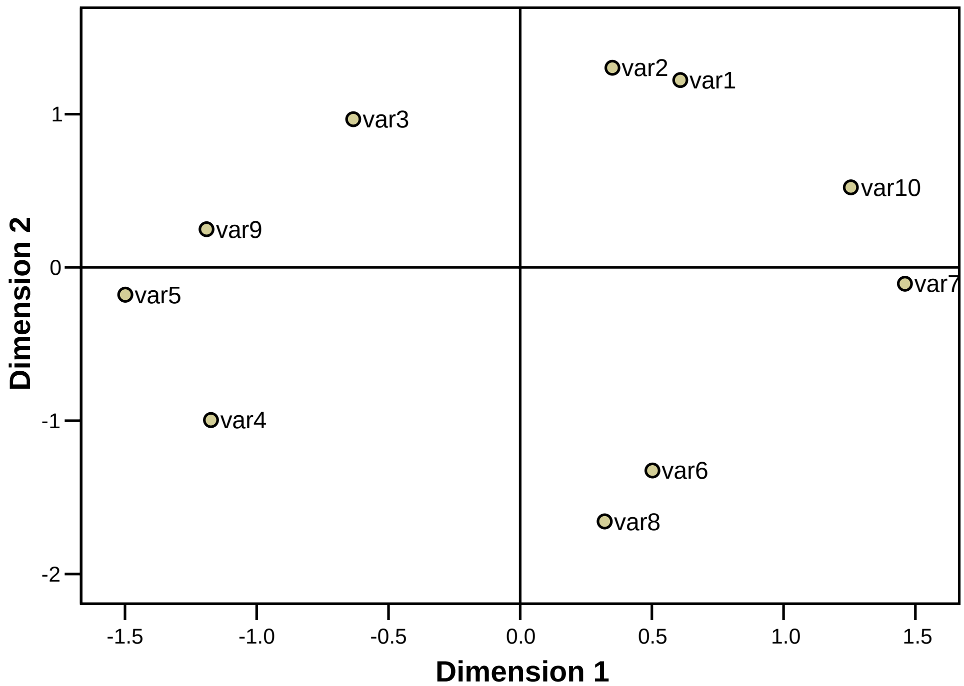


Flattened Subject Weights



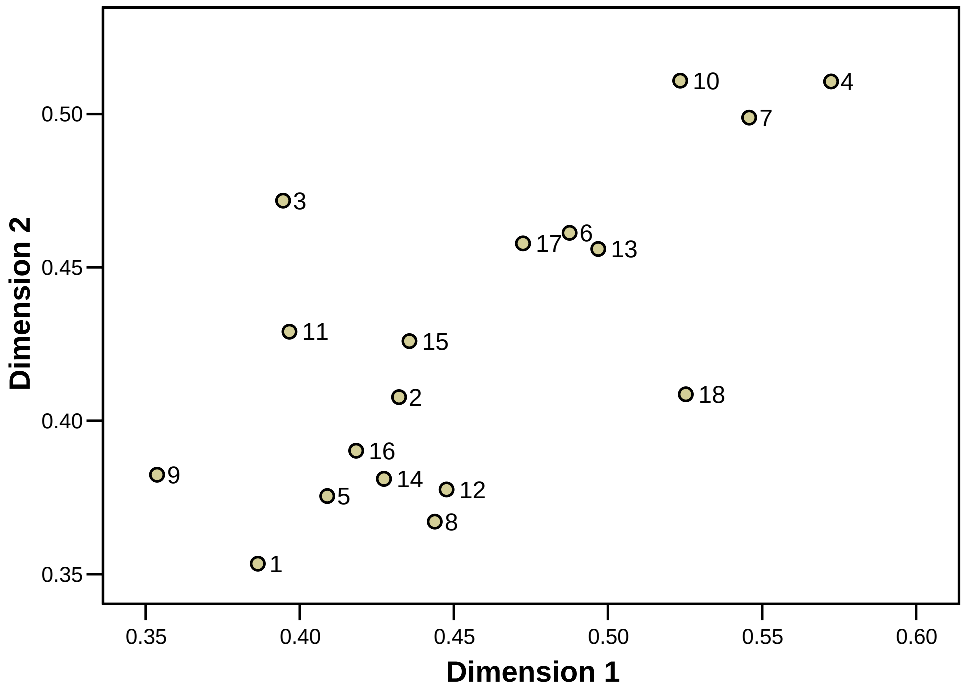
Derived Stimulus Configuration

Individual differences (weighted) Euclidean distance model



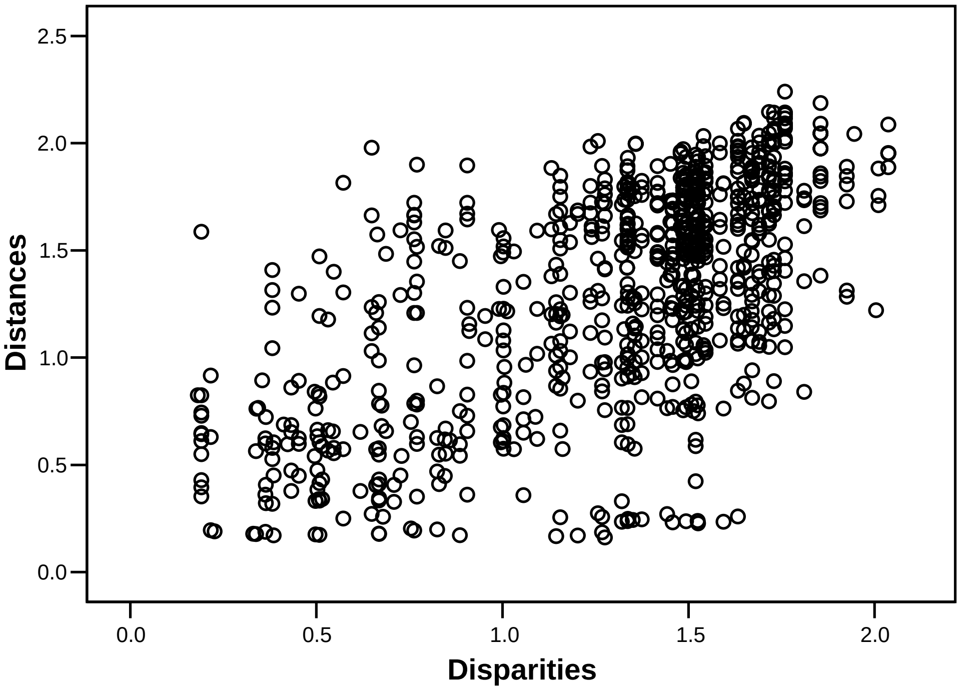
Derived Subject Weights

Individual differences (weighted) Euclidean distance model



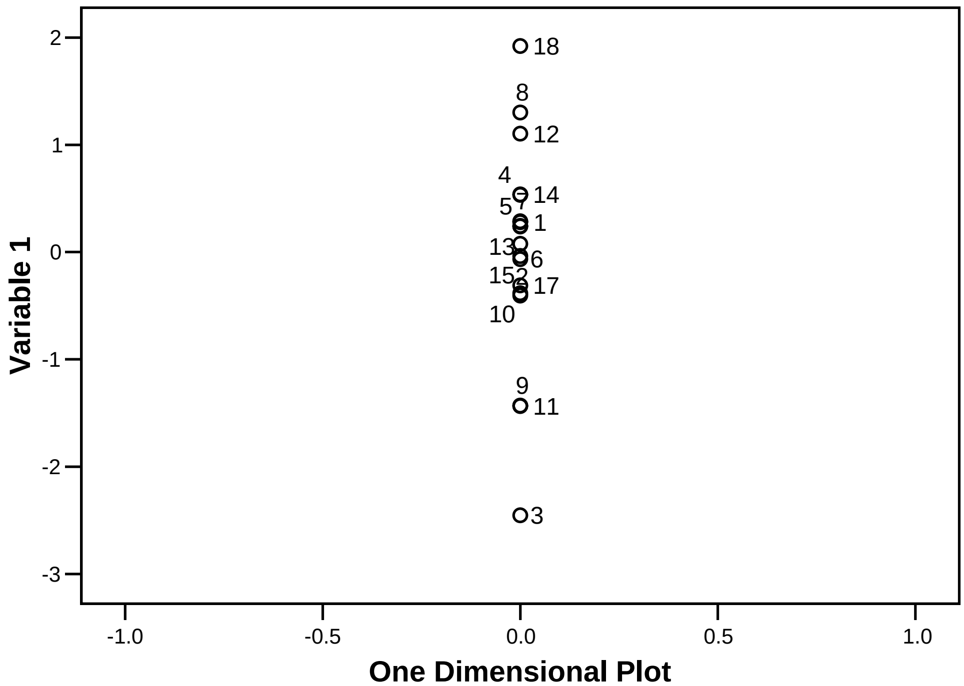
Scatterplot of Linear Fit

Individual differences (weighted) Euclidean distance model



Flattened Subject Weights

Individual differences (weighted) Euclidean distance model



ANACOR

A N A C O R - VERSION 0.4
BY
DEPARTMENT OF DATA THEORY
UNIVERSITY OF LEIDEN, THE NETHERLANDS

The table to be analyzed:

	1 HBAT	2 Firm A	3 Firm B	4 Firm C	5 Firm D	6 Firm E	7 Firm F
1	4	3	1	13	9	6	3
2	15	16	15	11	11	14	16
3	15	14	6	4	4	15	14
4	16	13	8	13	9	17	15
5	14	14	10	11	11	14	12
6	7	18	13	4	9	16	14
7	6	6	14	10	11	8	7
8	15	18	9	2	3	15	16
Margin	92	102	76	68	67	105	97

	8 Firm G	9 Firm H	10 Firm I	Margin
1	18	2	10	69
2	12	14	14	138
3	13	7	13	105
4	16	6	12	125
5	13	10	14	123
6	5	4	16	106
7	4	14	4	84
8	7	8	8	101
Margin	88	65	91	851

The Rowprofiles:

	1 HBAT	2 Firm A	3 Firm B	4 Firm C	5 Firm D	6 Firm E	7 Firm F
1	.058	.043	.014	.188	.130	.087	.043
2	.109	.116	.109	.080	.080	.101	.116
3	.143	.133	.057	.038	.038	.143	.133
4	.128	.104	.064	.104	.072	.136	.120
5	.114	.114	.081	.089	.089	.114	.098
6	.066	.170	.123	.038	.085	.151	.132
7	.071	.071	.167	.119	.131	.095	.083
8	.149	.178	.089	.020	.030	.149	.158
Margin	.108	.120	.089	.080	.079	.123	.114

	8 Firm G	9 Firm H	10 Firm I	Margin
1	.261	.029	.145	1.000
2	.087	.101	.101	1.000
3	.124	.067	.124	1.000
4	.128	.048	.096	1.000
5	.106	.081	.114	1.000
6	.047	.038	.151	1.000
7	.048	.167	.048	1.000
8	.069	.079	.079	1.000
Margin	.103	.076	.107	

The Columnprofiles:

	1 HBAT	2 Firm A	3 Firm B	4 Firm C	5 Firm D	6 Firm E	7 Firm F
1	.043	.029	.013	.191	.134	.057	.031
2	.163	.157	.197	.162	.164	.133	.165
3	.163	.137	.079	.059	.060	.143	.144
4	.174	.127	.105	.191	.134	.162	.155
5	.152	.137	.132	.162	.164	.133	.124
6	.076	.176	.171	.059	.134	.152	.144
7	.065	.059	.184	.147	.164	.076	.072
8	.163	.176	.118	.029	.045	.143	.165
Margin	1.000	1.000	1.000	1.000	1.000	1.000	1.000

	8 Firm G	9 Firm H	10 Firm I	Margin
1	.205	.031	.110	.081
2	.136	.215	.154	.162

3	.148	.108	.143	.123
4	.182	.092	.132	.147
5	.148	.154	.154	.145
6	.057	.062	.176	.125
7	.045	.215	.044	.099
8	.080	.123	.088	.119
Margin	1.000	1.000	1.000	

Dimension	Singular Value	Inertia	Proportion Explained	Cumulative Proportion
1	.27666	.07654	.531	.531
2	.21866	.04781	.332	.863
3	.12366	.01529	.106	.969
4	.05155	.00266	.018	.988
5	.02838	.00081	.006	.993
6	.02400	.00058	.004	.997
7	.01951	.00038	.003	1.000
Total		.14407	1.000	1.000

Row Scores:

Row	Marginal Profile	Dim 1	2
1	.081	1.506	-.298
2	.162	-.081	.245
3	.123	-.202	-.502
4	.147	.204	-.245
5	.145	.115	.046
6	.125	-.440	-.099
7	.099	.044	1.235
8	.119	-.676	-.285

Contribution of row points to the inertia of each dimension:

Row	Marginal Profile	Dim 1	Dim 2
1	.081	.665	.033
2	.162	.004	.045
3	.123	.018	.142
4	.147	.022	.040
5	.145	.007	.001
6	.125	.087	.006
7	.099	.001	.689
8	.119	.196	.044
		--------	--------
		1.000	1.000

Contribution of dimensions to the inertia of each row point:

Row	Marginal Profile	Dim 1	Dim 2	Total
1	.081	.961	.030	.991
2	.162	.093	.678	.772
3	.123	.138	.677	.816
4	.147	.289	.330	.619
5	.145	.469	.058	.527
6	.125	.358	.014	.372
7	.099	.002	.989	.991
8	.119	.789	.111	.901

Column Scores:

Column	Marginal Profile	Dim 1	Dim 2
1 HBAT	.108	-.247	-.293
2 Firm A	.120	-.537	-.271
3 Firm B	.089	-.444	.740
4 Firm C	.080	1.017	.371
5 Firm D	.079	.510	.556
6 Firm E	.123	-.237	-.235
7 Firm F	.114	-.441	-.209
8 Firm G	.103	.884	-.511
9 Firm H	.076	-.206	.909
10 Firm I	.107	.123	-.367

Contribution of column points to the inertia of each dimension:

Column	Marginal Profile	Dim 1	2
1 HBAT	.108	.024	.042
2 Firm A	.120	.125	.040
3 Firm B	.089	.063	.224
4 Firm C	.080	.299	.050
5 Firm D	.079	.074	.111
6 Firm E	.123	.025	.031
7 Firm F	.114	.080	.023
8 Firm G	.103	.292	.123
9 Firm H	.076	.012	.289
10 Firm I	.107	.006	.066
		1.000	1.000

Contribution of dimensions to the inertia of each column point:

Column	Marginal Profile	Dim 1	2	Total
1 HBAT	.108	.206	.228	.433
2 Firm A	.120	.772	.156	.928
3 Firm B	.089	.294	.648	.942
4 Firm C	.080	.882	.093	.975
5 Firm D	.079	.445	.418	.863
6 Firm E	.123	.456	.356	.812
7 Firm F	.114	.810	.144	.954
8 Firm G	.103	.762	.201	.963
9 Firm H	.076	.049	.748	.797
10 Firm I	.107	.055	.390	.446

Variances and Correlation Matrix of the singular values:

Dim	Variances	Correlations between dimensions	
1	.001	1.000	
2	.001	-.030	1.000

Variances and Correlation Matrix of scores of Row 1

Dim	Variances	Correlations between dimensions	
1	.039	1.000	
2	.287	.632	1.000

Variances and Correlation Matrix of scores of Row 2

Dim	Variances	Correlations between dimensions	
1	.033	1.000	
2	.034	.079	1.000

Variances and Correlation Matrix of scores of Row 3

Dim	Variances	Correlations between dimensions	
1	.072	1.000	
2	.041	-.329	1.000

Variances and Correlation Matrix of scores of Row 4

Dim	Variances	Correlations between dimensions	
1	.042	1.000	
2	.037	.205	1.000

Variances and Correlation Matrix of scores of Row 5

Dim	Variances	Correlations between dimensions	
1	.029	1.000	
2	.036	-.023	1.000

Variances and Correlation Matrix of scores of Row 6

Dim	Variances	Correlations between dimensions	
1	.041	1.000	
2	.108	-.061	1.000

Variances and Correlation Matrix of scores of Row 7

Dim	Variances	Correlations between dimensions	
1	.309	1.000	
2	.026	-.081	1.000

Variances and Correlation Matrix of scores of Row 8

Dim	Variances	Correlations between dimensions	
1	.036	1.000	
2	.089	-.501	1.000

Variances and Correlation Matrix of scores of Column 1 HBAT

Dim	Variances	Correlations between dimensions	
1	.043	1.000	
2	.067	-.135	1.000

Variances and Correlation Matrix of scores of Column 2 Firm A

Dim	Variances	Correlations between dimensions	
1	.031	1.000	
2	.063	-.371	1.000

Variances and Correlation Matrix of scores of Column 3 Firm B

Dim	Variances	Correlations between dimensions	
1	.107	1.000	
2	.048	.673	1.000

Variances and Correlation Matrix of scores of Column 4 Firm C

Dim	Variances	Correlations between dimensions	
1	.060	1.000	
2	.142	-.725	1.000

Variances and Correlation Matrix of scores of Column 5 Firm D

Dim	Variances	Correlations between dimensions	
1	.093	1.000	
2	.064	-.607	1.000

Variances and Correlation Matrix of scores of Column 6 Firm E

Dim	Variances	Correlations between dimensions	
1	.034	1.000	
2	.038	-.149	1.000

Variances and Correlation Matrix of scores of Column 7 Firm F

Dim	Variances	Correlations between dimensions	
1	.023	1.000	
2	.043	-.445	1.000

Variances and Correlation Matrix of scores of Column 8 Firm G

Dim	Variances	Correlations between dimensions	
1	.096	1.000	
2	.119	.721	1.000

Variances and Correlation Matrix of scores of Column 9 Firm H

Dim	Variances	Correlations between dimensions	
1	.162	1.000	
2	.097	.206	1.000

Variances and Correlation Matrix of scores of Column 10 Firm I

Dim	Variances	Correlations between dimensions	
1	.073	1.000	
2	.049	.087	1.000

The data-matrix permuted according to the scores in dimension: 1

	2 Firm A	3 Firm B	7 Firm F	1 HBAT	6 Firm E	9 Firm H	10 Firm I
8	18	9	16	15	15	8	8
6	18	13	14	7	16	4	16
3	14	6	14	15	15	7	13
2	16	15	16	15	14	14	14
7	6	14	7	6	8	14	4
5	14	10	12	14	14	10	14
4	13	8	15	16	17	6	12
1	3	1	3	4	6	2	10
Margin	102	76	97	92	105	65	91

The data-matrix permuted according to the scores in dimension: 1

	5 Firm D	8 Firm G	4 Firm C	Margin
8	3	7	2	101
6	9	5	4	106
3	4	13	4	105
2	11	12	11	138
7	11	4	10	84
5	11	13	11	123
4	9	16	13	125
1	9	18	13	69
Margin	67	88	68	851

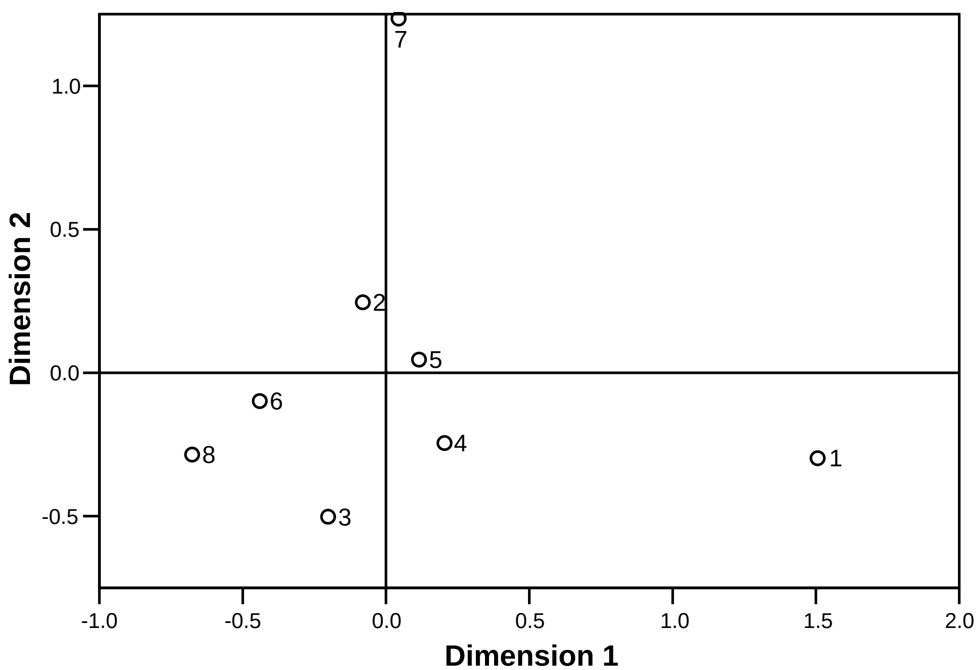
The data-matrix permuted according to the scores in dimension: 2

	8 Firm G	10 Firm I	1 HBAT	2 Firm A	6 Firm E	7 Firm F	4 Firm C
3	13	13	15	14	15	14	4
1	18	10	4	3	6	3	13
8	7	8	15	18	15	16	2
4	16	12	16	13	17	15	13
6	5	16	7	18	16	14	4
5	13	14	14	14	14	12	11
2	12	14	15	16	14	16	11
7	4	4	6	6	8	7	10
Margin	88	91	92	102	105	97	68

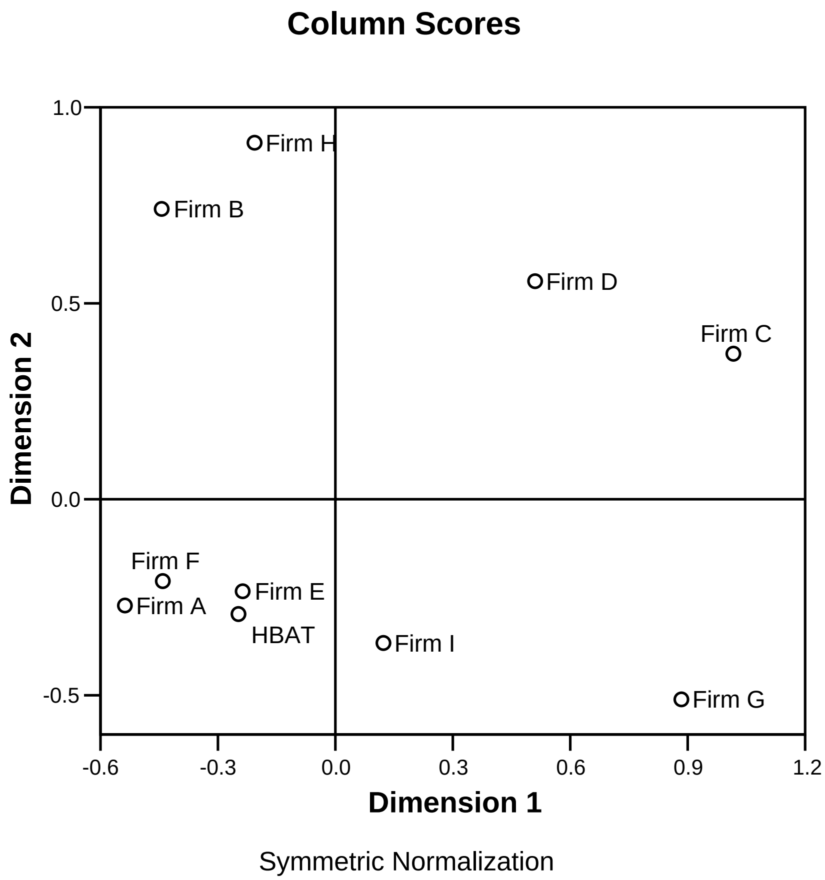
The data-matrix permuted according to the scores in dimension: 2

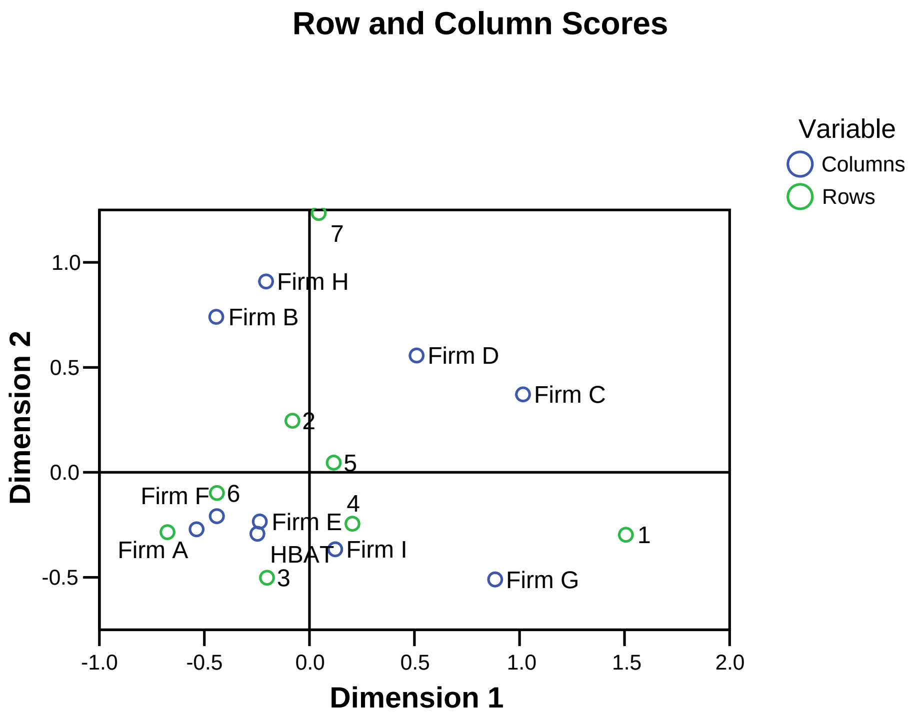
	5 Firm D	3 Firm B	9 Firm H	Margin
3	4	6	7	105
1	9	1	2	69
8	3	9	8	101
4	9	8	6	125
6	9	13	4	106
5	11	10	10	123
2	11	15	14	138
7	11	14	14	84
Margin	67	76	65	851

Row Scores



Symmetric Normalization


Column Scores
Dimension 2
Dimension 1
1.0
0.5
0.0
-0.5
-0.6
-0.3
0.0
0.3
0.6
0.9
1.2
Firm H
Firm B
Firm D
Firm C
Firm F
Firm E
Firm A
HBAT
Firm I
Firm G
Symmetric Normalization



Symmetric Normalization