SUBJECT ABILITIES TO USE METRIC MDS: EFFECTS OF VARYING THE CRITERION PAIR

By

Thomas F. Gordon

March 1976

Temple University
School of Communications & Theater
Philadelphia, Pa. 19122

Research Assistants:
Michael Fisher and Gary Solarz

SUBJECT ABILITIES TO USE METRIC MDS: EFFECTS OF VARYING THE CRITERION PAIR

INTRODUCTION

Increasingly, multidimensional scaling (MDS) is being used to explore communication/cognitive related processes. Similarly, the use of metric MDS (vs. nonmetric) is increasing. Given the availability of excellent reviews contrasting the metric vs. nonmetric approaches, no attempt will be made here to review these differences (see for example Gregson, 1975; Danes and Woelfel, 1975; Shepard et.al., 1972; Woelfel, 1974).

The present study addresses the problem of selecting a criterion pair to present to subjects in a metric MDS task and, more importantly, the subject's ability to reliably use that standard to describe or characterize their conceptions of a given set of elements. This study explores these areas and at the same time partially replicates the findings of an earlier study by Gordon and De Leo (1975) involving differences in the spacial representation of structures produced by varying the criterion.

The Gordon and De Leo study determined that providing a 10 unit criterion pair composed of the extremes from the concept domain produced a structure which was statistically identical to using the concepts "red and white" (10 units apart) and/or using only a ten unit scale base with no anchor concepts (with the option to make judgements larger than 10 units). The interpretation of those results suggested that for the red-white and no concept treatments, the only useable information for the subject was the 10 unit scale base since color was irrelevant to the concepts being judged. Thus, judgements were made with that scale base in mind and identical

---

The competent assistance of Michael Fisher and Gary Solarz is greatfully acknowledged. Their efforts in data collection and processing were far above and beyond the call of duty. Thanks go also to Gary Jeffries and Ken Galen for their help in data collection.

structures resulted. With the extreme concepts as the criterion, although these concepts were meaningful, the fact that they represented the extremes produced the same result by essentially limiting the judgments to that ten unit base.

The present study was designed to replicate the finding that the criterion pair consisting of the extremes from the concept domain will produce a structure identical to providing the same scale base with no concept anchors. As well, the study extends this to vary the distance between the concepts to further explore the subject's ability to use the criterion given.

Overall, it was expected that the same relationship as evidenced in the earlier study would hold true. Thus, the prediction was:

> H_1: Given the same unit distance, the no criterion pair and the extreme concepts criterion pair will produce statistically identical structures.

Also, given the evidence concerning the reliability of metric MDS with agregate data (see Barnett, 1972; Gillham and Woelfel, 1975), it was predicted that:

> H_2: As the distance between the criterion pair is increased, the resulting judgments of distances among concepts will increase but the pattern of concept interrelationships will remain the same.

In the Gordon and De Leo (1975) study a fourth criterion pair treatment was employed using two concepts somewhat closer together in the concept domain. The results of that comparison were inconclusive, but suggested that a criterion pair using concepts that are close together will produce an expanded structure since most of the judgements must be made outside (larger than) that distance base. Thus, the prediction was:

> H_3: A criterion pair using concepts close together in the concept domain will produce an expanded structure (as compared to the extremes), yet the interrelationships of the concepts will remain the same.

METHODOLOGY

Concepts

As a methods study, the particular concepts used for the scaling comparisons were of secondary interest. The concepts selected were types of television programs and particular titles of shows related to each program type. These choices were made on the reasoning that most subjects would be able to judge these concepts and, as such, maximum judgements would be obtained. Also, the clusterings of program titles with program types could be examined for internal content validity of the resulting structures. Six general program types and six related shows plus the concept "me" (self) resulted in a total of 13 concepts requireing 78 paired judgements. The particular TV shows were selected on the basis of having high ratings in a recent ratings period (Broadcasting, p.19). A listing of the concepts follows:

1. Children's Comedy
2. Adult Situation Comedy
3. Soap Opera
4. Family Drama
5. Medical Drama
6. Crime Drama
7. Fat Albert
8. All in the Family
9. General Hospital
10. The Waltons
11. Medical Center
12. The Streets of San Francisco
13. Me

Treatment Conditions

To explore the effects of criterion pair variation and to partially replicate the findings of our earlier study (Gordon and De Leo, 1975), three major treatment variations were employed. First, the extremes of the concept domain were used and these were specified as differing distances apart for different treatment groups. Second, two concepts closer together in the domain were used, varying their specified distance. Third, no concepts were used but instead subjects were simply told, "As you judge the distances,

keep a ten point scale in mind -- some shows may be less than ten units apart and others may be more." The nine specific treatment conditions (independent groups) were as follows:

1. None (no anchor concepts, only a 10 point scale base)
2. Children's Comedy - Crime Drama = 10 (CC10)
3. " " " = 25 (CC25)
4. " " " = 50 (CC50)
5. " " " = 100 (CC100)
6. Family Drama - Medical Drama = 10 (FM10)
7. " " " = 25 (FM25)
8. " " " = 50 (FM50)
9. " " " = 100 (FM100)

Subjects

A total of 863 students were the subjects in this experiment. The number in each treatment ranged from 92-112. The large number of subjects was deemed necessary so that the comparisons would be based on stable structures. Table 1 provides the n's for each treatment. The students were randomly assigned (by classes) to treatments. The departments sampled included Anthropology, Education, Journalism, Psychology, Radio-TV-Film, Sociology, Speech, and Theater. The groupings of subjects in each treatment relative to the demographics of (a) year in school; (b) age; (c) sex; (d) race; (e) income; and (f) average hours spent watching TV, appear in Appendix A.

Procedures

The data were collected December 1-12, 1975. Subjects in classrooms were given one of the nine treatment variations and the following instructions were read with them:

> This form asks you to tell us how different (or in other words, how "far apart") TV shows are from each other. Difference between shows can be measured in units, so that the more different two shows are, the more units apart they are. To help you know how big a unit is, _____ and _____ are ____ units apart.

You are supposed to tell us how many units apart the shows on the next few pages are. Remember, the more different the shows are from each other, the larger the number of units apart they are. Some shows may be more than _____ units apart and some may be less.
Note that:

-- "me" on the questionnaire mean yourself. Judgements involving "me" should indicate how close you feel to that TV show or type of program.
-- Zero can be used as a distance; if you see two things as identical, they would be zero distance apart.
-- If you are not familiar with a TV show or type of program, leave that pair blank.

Please work quickly. Judge the shows as pairs rather than trying to relate each judgement to all others.

Blanks in the above instructions were filled by the criterion pair used in a particular treatment. For the no criterion pair treatment the last sentence in the first paragraph of the instructions read, "As you judge the distances, keep a ten point scale in mind -- some concepts may be less than ten units apart and others may be more."

On the average, the items were completed in 15-20 minutes. Most of the subjects were able to judge the 78 pairs with the average number of subject judgements ranging from 83.87 to 106.74.

RESULTS

Individual Treatments

Using version 3.0 of the GALILEO metric MDS program, treatments were first processed individually. Appendices B_1 - B_9 provide the summary statistics for each treatment and the resulting normal factor solution which defined the concept locations as coordinates in three-dimensional space. Table 1 provides the percent of real distance accounted for by the three factors, the imaginary distance of the total solution, and the trace values.

To avoid the effect of extreme values on the means, maximum values were set for each treatment using the maximum value option of the GALILEO program. These values were determined by successive runs in which the extreme values were gradually reduced while observing the minimum-maximum descriptive statistics as related to (a) the criterion pair given; (b) the means; and (c) the standard deviations. The maximum values finally used are provided in Table 1 along with the number of judgements that value excluded, and the average number of observations remaining per cell.

Given the scaled concepts, plots of the first three orthogonal factors were obtained using the plot option of the program. These plots are presented in Figures 1_a-1_i. The high degree of similarity of inter-concept locations across the treatments is visually evident in these figures. Keeping in mind the mean distances, these plots show that the concept locations are highly similar for each treatment, while the actual mean distances between concepts differs considerably across treatments.

Comparison of Treatments

Correlations. To statistically verify the consistency of concept locations across treatments, the mean distances for the 78 pairs in each treatment were entered as scores into a standard Pearson product moment correlation. Thus,

the pattern evident in the inter-concept distances could be compared across treatments. Table 2 presents the results of these intercorrelations. In all cases the correlations are extremely high, ranging from .933 to .988.

Comparison of spaces. Next, the treatments were compared using the Comparison of Spaces option of the GALILEO program. This option uses a least squares rotation of the axes of the individual treatments to one treatment specified as the mainspace. For this plot, the treatments were organized by trace to keep the plot as neat as possible, given the complexity of comparing nine data sets. Thus, FM100 was defined as the mainspace (this decision was made, rather than using CC10 as the mainspace, because the concept numbers are placed with the first plot and the CC10 plot would have placed 13 numbers into a very small space). The trace ordering was: CC10, None, FM10, CC25, FM25, CC50, FM50, CC100, FM100. Figure 2 shows the resulting plot and confirms the intercorrelation interpretation that the relative concept locations are highly similar for each treatment but the space expands as the criterion pair distance increases. As predicted, for the same given distance, the criterion pair which is closer together produces a larger space than does the extreme pair.

Figure 3 presents the comparison of spaces plot for only the CC10 and None treatments, both having a 10 unit base. It is obvious from this plot that hypothesis one (predicting statistically identical structures for CC10 and None) is confirmed. This result replicates the findings our earlier study.

As a side note to the comparison of spaces option of the GALILEO program, future users might learn from a problem which was encountered here. This option only allows for the specification of one maximum value for limiting

mean calculations. Thus, when differing values are used for different treatments the comparison cannot be made from raw data. The apparent solution was to go to punched output and use this output as input to the comparison routine, since the maximum value in the individual treatments would have done its work. However, the question remained as to whether to use the means matrix output or the eigentrix matrix. Theoretically they should both produce the same comparison result. To check this, comparisons were run using the means punched output and then using the eigentrix output. The results differed and the differences became more marked as the number of treatments being compared increased. It was reasoned that the difference was related to the fact that only four decimal places are maintained in the punched output while eight or nine may be used by the computer for internal calculations. Thus, imprecision might be introduced as rounding error and further complicated in the least squares rotation process of the comparison operation. To check this, separate means matrix and eigentrix matrix outputs were used as input to the comparison operation but the matricies were stored on disk rather than as punched output. The comparison results were identical. Thus, the source of the difference was isolated. The recommendation then, is if punched output from the program is to be used as input to the comparison routine, the eigentrix output should be used rather than the means output because the eigentrix matrix incorporates more internal operations and thus maintains a higher degree of precision.

Validity checks. Two elements were built into the design of the instrumentatio to allow for validity checks on the structuring of the concepts. First, as a type of content validity check the particular television program titles were

expected to cluster in the space near their general program type. It is evident from the plots that this is the case. Second, as a form of construct validity check, an opened item was included asking the subjects to indicate, in general, what types of TV programs they prefer. Of the types represented in this study, the modal responses were crime drama and situation comedy. As can be seen in the plots, although the "me" concept is somewhat distant from all the shows, it is positioned nearest and between these two program types. Thus, although the validity checks are minimal, the structures appear to be highly interpretable in terms of both the content and construct checks.

CONCLUSIONS AND DISCUSSION

Conclusions

Relative to the initial hypotheses, the results of these comparisons are very clear. First, the no concept criterion treatment produced a structure which was essentially identical to the structure produced by the extreme concepts criterion pair (see Fig. 3). Second, as the difference between the criterion pair was increased from 10 to 25, 50 and 100 units, the resulting structural space was increased yet the interrelationships of the concepts to each other remained essentially the same (see Fig. 2). The extent of this similarity was truly exceptional with the treatment intercorrelations ranging from .933 to .988. Third, the ability to use differing criterion pairs seems to be such that subjects can quite readily use differing standards to describe their perceptions of concept interrelationships; and, the pattern of these relationships will be reliably captured.

Discussion

The results of this study, relative to the reliability of metric MDS as operationalized thru the GALILEO program, are very impressive. The odds that nine independent groups of people, each using different criteria to judge 78 different pairs of concepts , would produce statistically identical structures must be very high. Thus, these results shed light on both the subject's ability to adapt to differing measurement criteria, and the method's ability to precisely reflect those judgements. Error on either side would have decreased the likelihood that similar structures would be evident across treatments.

The consistency of these findings should be placed in the context of both the nature of the concepts and the characteristics of the sample. The concepts were purposely selected to be homogeneous. A heterogeneous set of concepts might show less stability. As well, the sample of college students may be better able to adapt judgments to differing criteria than is the general public. These questions are yet to be explored.

It should be noted here that further analyses of these data are underway to examine the variability of judgements across treatments. As well, variability will be related to the absolute distances evident in the structures produced by the different criterion pairs. Until these comparisons are made, recommendations as to how to select a criterion pair for a given situation will be incomplete. (These analyses will be complete by the time of the AEJ convention.)

REFERENCES

Barnett, G. A. Reliability and metric multidimensional scaling. Unpublished research report, East Lansing, Michigan State University, Communication Department, 1975.

Broadcasting. "ABC-TV Takes Over Second in Ratings." Vol. 89, No.13, September 29, 1975.

Danes, J. E., and Woelfel, J. An alternative to the "traditional" scaling paradigm in mass communication research: multidimensional reduction of ratio judgments of seperation. Paper presented at the annual meeting of the International Communication Association, Chicago, 1975.

Gillham, J. R. and Woelfel, J. The Galileo system of measurement: preliminary evidence for precision, stability and equivalence to traditional measures. Unpublished research report, Akron, Ohio, University of Akron, 1975.

Gordon, T. F., and De Leo, H. C. Structural variation in "Galileo" space: effects of varying the criterion pair in metric multidimensional scaling. Paper presented at the annual meeting of the International Communication Association, Portland, Oregon, 1976.

Gregson, R. A. M. Psychometrics of Similarity. New York: Academic Press, 1975.

Shepard, R. N., Romney, A. and Nerlove, S. (Eds.) Multidimensional Scaling: Theory and Applications in the Behavioral Sciences, Vol. 1. New York: Seminar Press, 1972.

Woelfel, J. Procedures for the precise measurement of cultural processes. Unpublished manuscript, East Lansing, Michigan State University, Communication Department, 1974.

TABLE 1

Descriptive characteristics of treatments

Treatment	N	Max Value	Judge.* Excluded	Ave Obs. Per Cell	3 Factor % Real Dist. Acc. For	Cum. Percent Imaginary Dist.	Trace
None	93	50	19	86.96	79.19	11.04	255.59
CC10	93	50	8	88.37	82.21	10.05	238.98
CC25	93	79	133	87.94	79.61	11.42	1479.64
CC50	92	250	44	86.91	81.25	11.22	6441.19
CC100	94	400	27	83.87	83.25	12.69	23137.37
FM10	112	100	33	106.74	79.71	17.32	951.15
FM25	96	145	135	89.59	81.43	17.66	4712.67
FM50	93	400	68	87.60	83.53	12.77	13772.84
FM100	97	600	111	90.32	82.03	10.67	45100.99
Total	863						

*The number of possible judgements in the treatments ranged from 7166 in CC50 to 8736 in FM10.

TABLE 2

Intercorrelations of Mean Distances

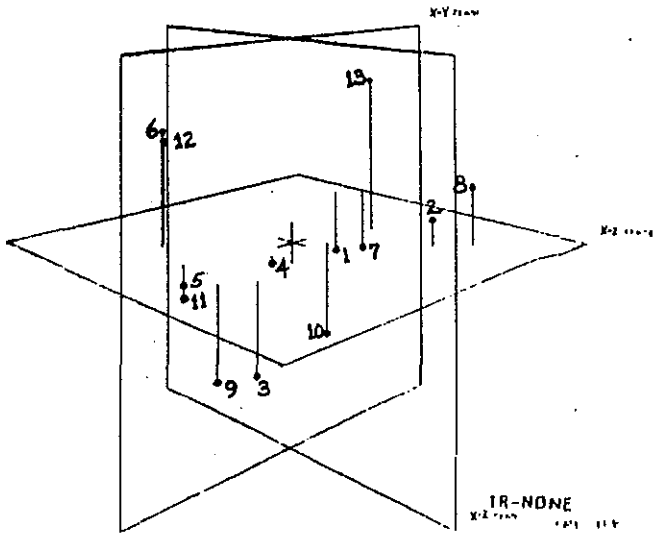
Among Concepts for all Treatments

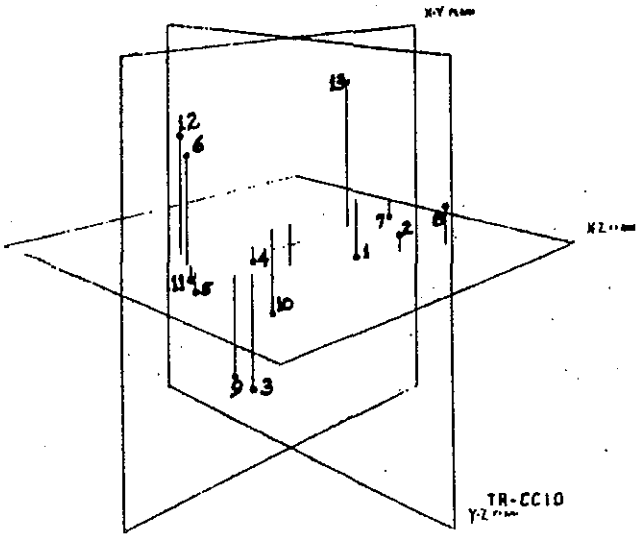
None	----								
CC10	.972	----							
CC25	.977	.978	----						
CC50	.975	.983	.982	----					
CC100	.972	.978	.977	.982	----				
FM10	.953	.960	.955	.963	.945	----			
FM25	.963	.979	.964	.972	.959	.959	----		
FM50	.974	.987	.976	.983	.973	.967	.979	----	
FM100	.964	.972	.970	.971	.973	.933	.946	.970	----
	None	CC10	CC25	CC50	CC100	FM10	FM25	FM50	FM100

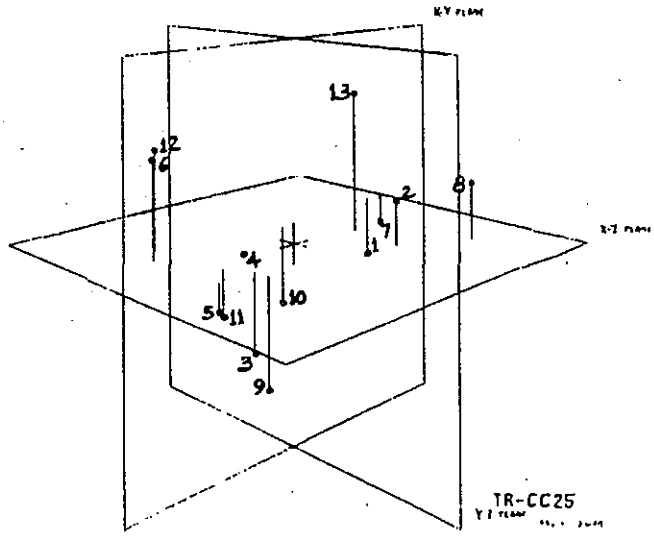
The n in each cell is 78.
All correlations are significant $p < .0001$

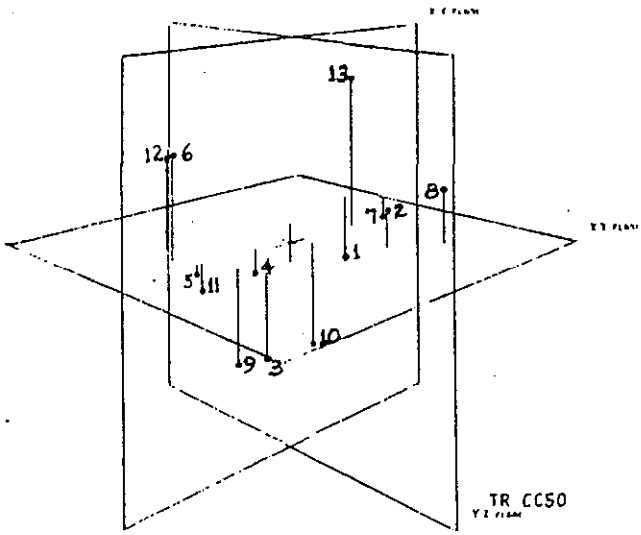
Concepts

1. Children's Comedy
2. Adult Situation Comedy
3. Soap Opera
4. Family Drama
5. Medical Drama
6. Crime Drama
7. Fat Albert
8. All in the Family
9. General Hospital
10. The Waltons
11. Medical Center
12. Streets of San Francisco
13. Me









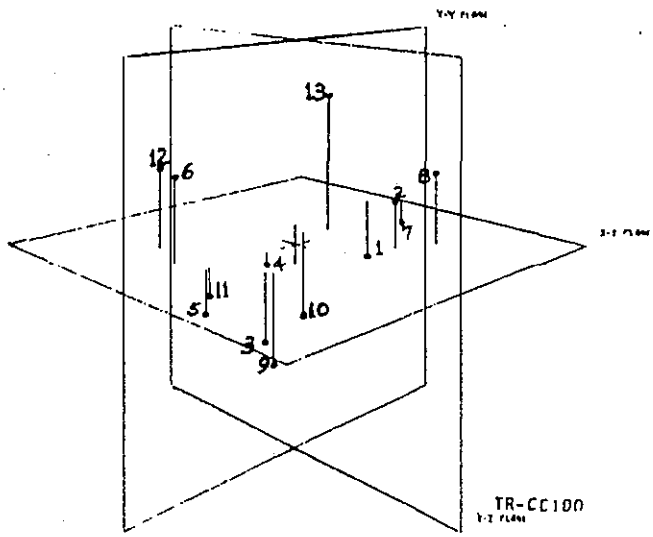
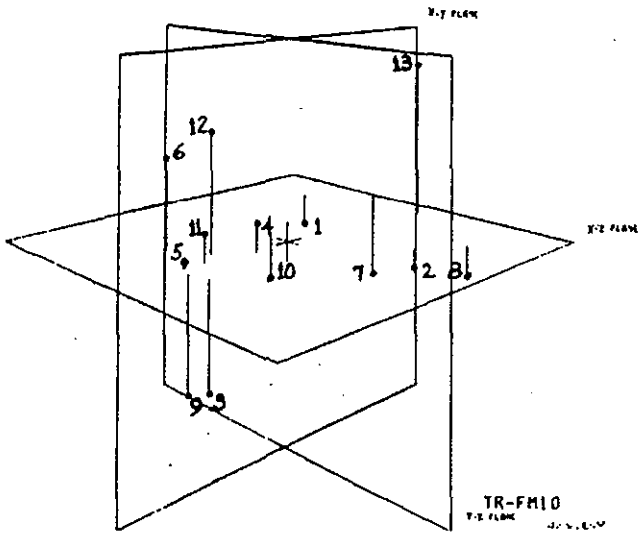
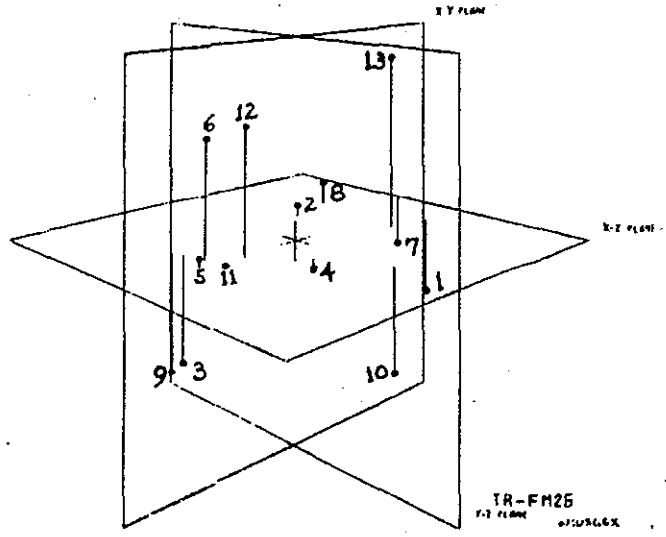
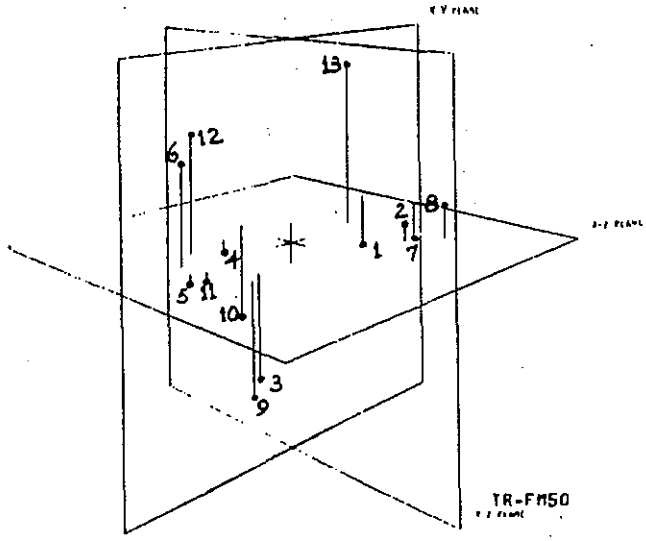


Figure . Individual plots of each treatment.







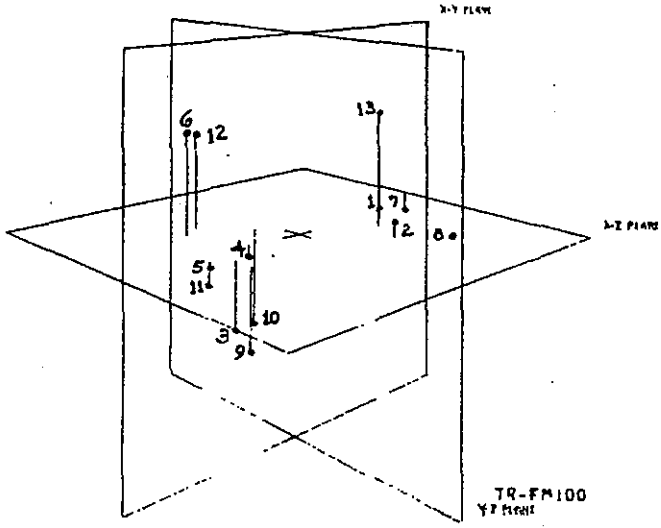


Figure (cont.) Individual plots of each treatment.

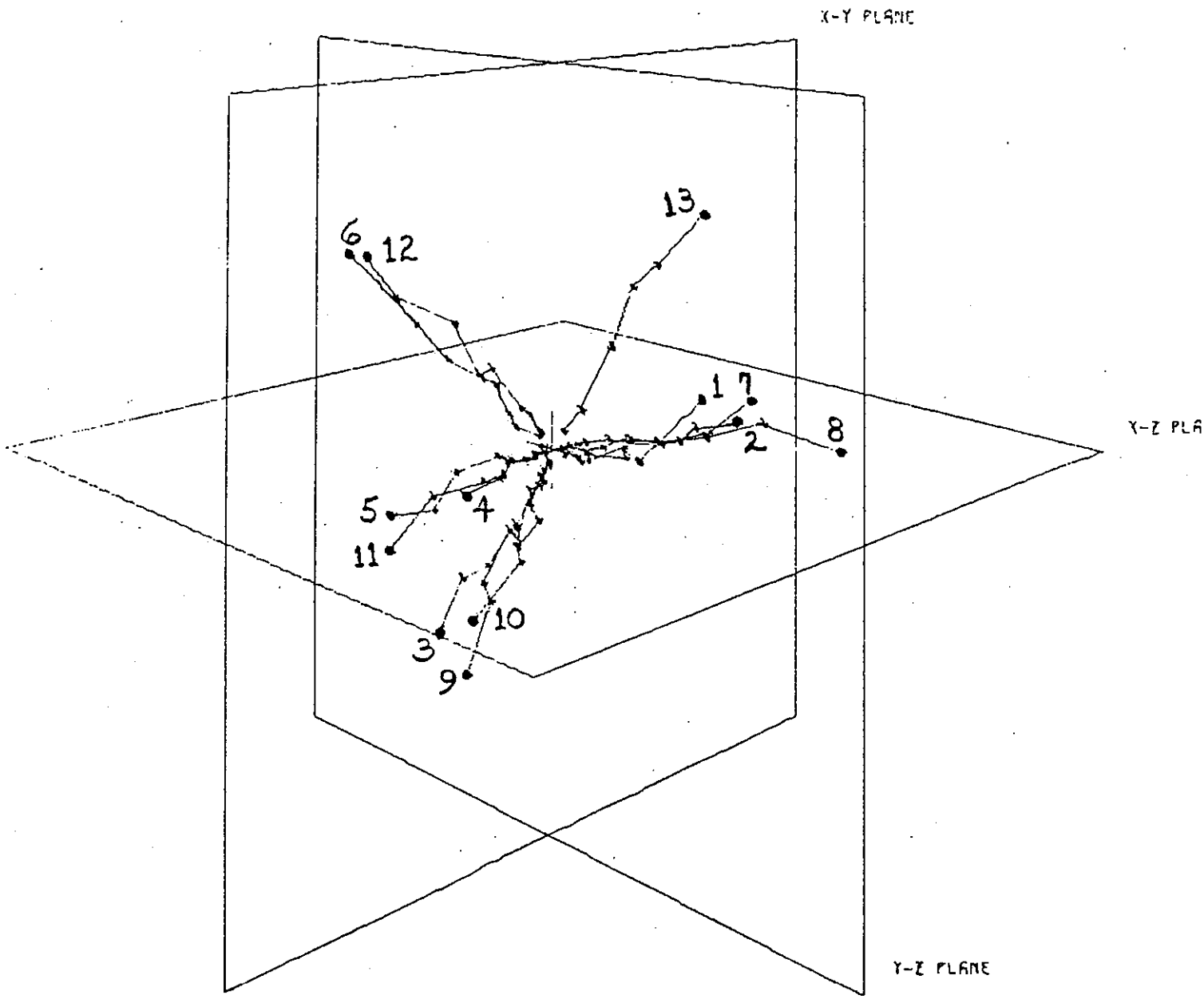
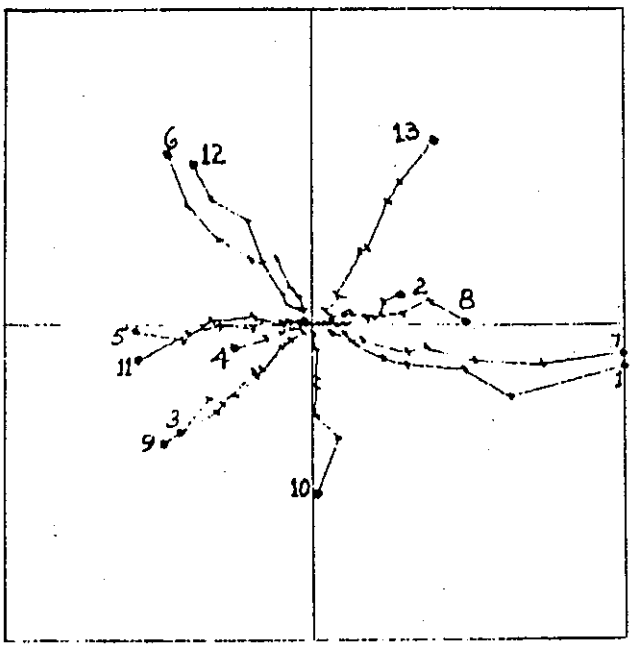
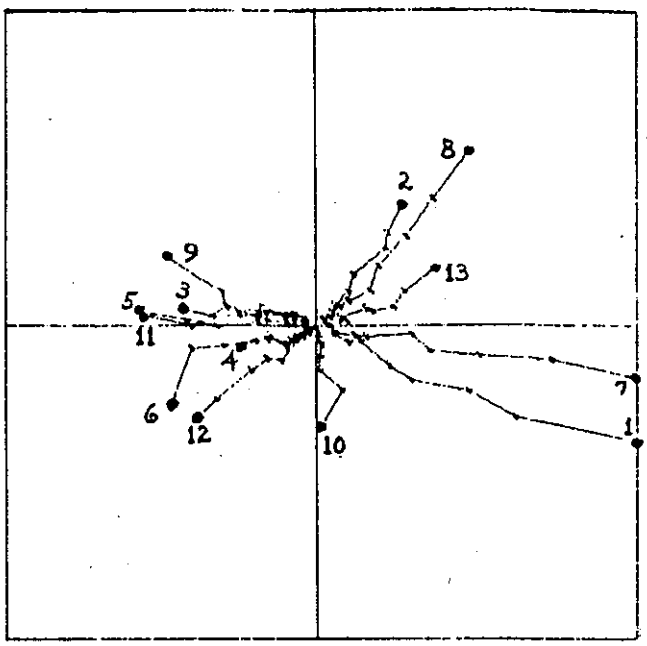


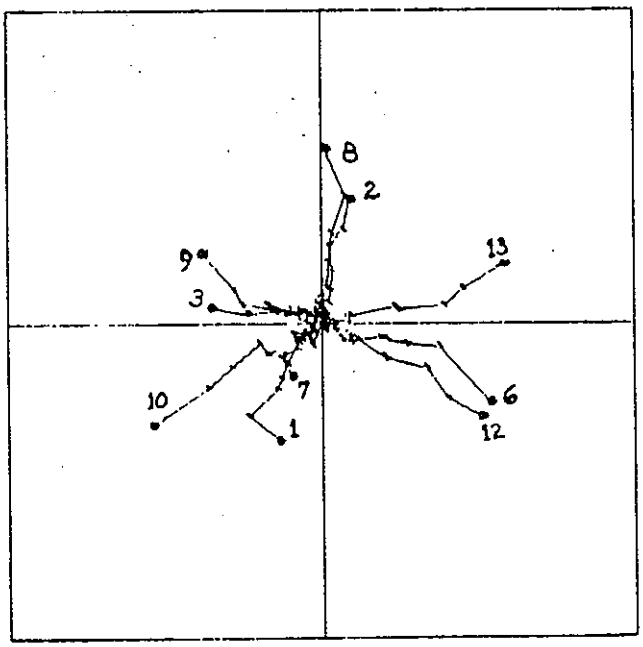
Figure . Comparison of treatments. Begining at concept number, each point represents the judgement of that concept using different criterion pair. The order of treatments from outer to inner is: FM100, CC100, FM50, CC50, FM25, CC25, FM10, CC10 ("None" treatment not included, see Fig. 3).



X-Y Plane



X-Z Plane



Y-Z Plane

Figure 2 (cont.). Individual planes from three-dimensional plot.

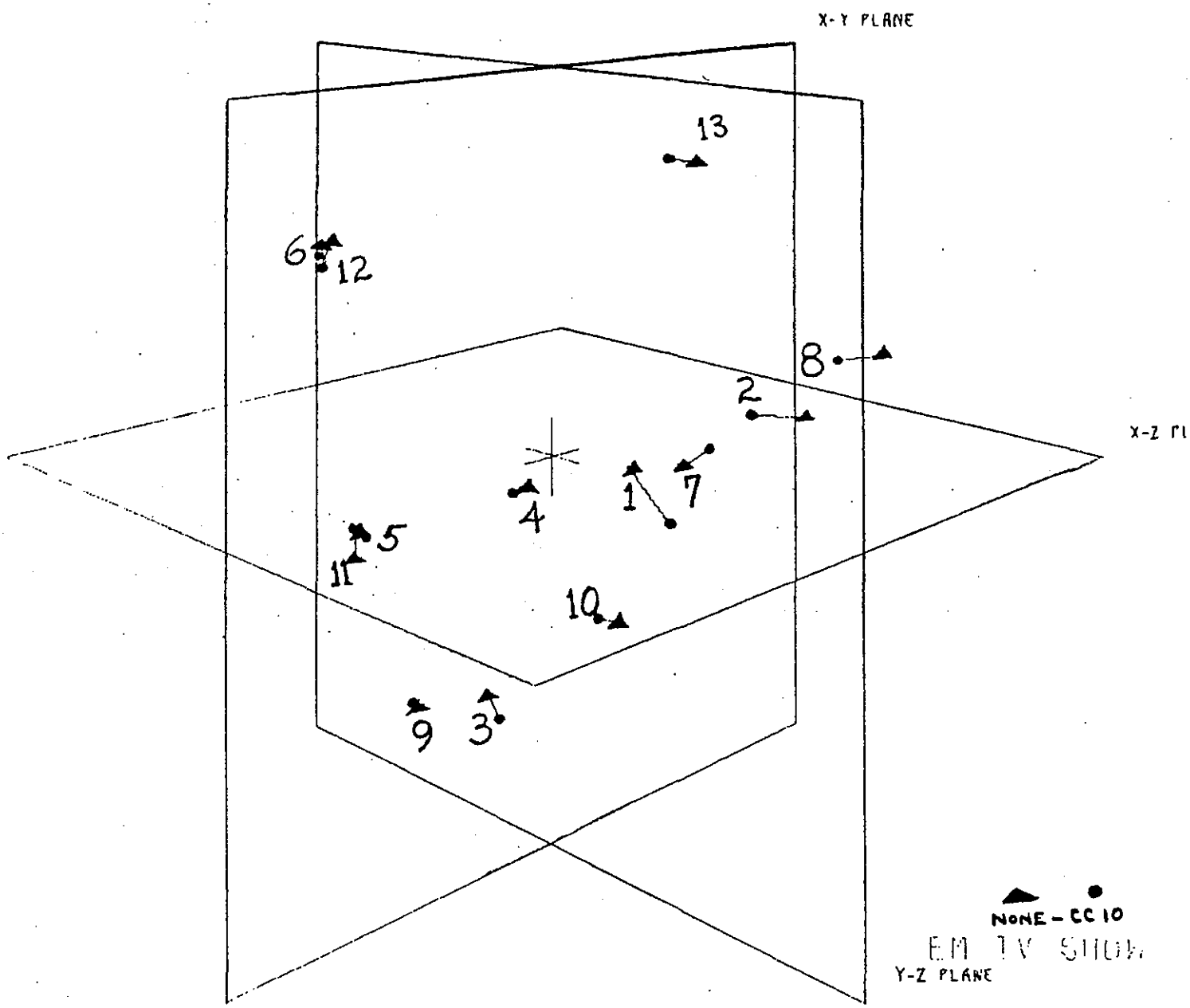


Figure . Comparison of spaces for treatments 'None' and CC10.

APPENDIX A

Sample Demographics by Treatment

Appendix A

Sample Demographics by Treatment

Treatment	YEAR				AGE			SEX		RACE			FAMILY INCOME					
	Fr.	Soph	Jr	Sr.	18-25	26-35	36+	Male	Fem.	Bl.	Wh.	Othr	0-4999	5-7999	8-9999	10-14999	15-20	20+
None	21	24	28	21	79	10	4	66	27	11	77	5	6	7	8	26	21	23
CC10	14	13	36	28	77	14	1	74	18	7	79	6	11	9	12	23	17	19
CC25	28	15	33	16	80	10	2	59	33	6	85	2	4	5	9	27	22	25
CC50	4	8	46	29	77	13	1	62	29	22	64	5	6	7	9	27	14	28
CC100	16	33	23	20	83	8	2	63	29	13	71	9	8	8	7	31	18	21
FM10	12	43	36	16	102	7	1	73	35	16	88	3	6	10	13	22	29	27
FM25	24	24	28	19	87	10	0	63	28	13	78	5	4	5	13	25	25	22
FM50	33	12	26	18	79	9	0	46	43	11	72	2	7	7	9	22	23	22
FM100	14	33	26	24	89	8	1	66	32	14	78	9	7	7	10	23	18	32

Treatment	AVE HOURS TV/DAY					AVE HOURS TV/WEEK					
	0-.9	1-1.9	2-2.9	3-3.9	4+	0-3.9	4-8.9	9-13.9	14-18.9	19-23.9	24+
None	11	20	32	20	11	8	17	23	20	10	15
CC10	18	22	23	19	10	13	21	19	16	11	11
CC25	17	25	27	6	15	11	26	18	14	8	15
CC50	9	28	30	12	12	4	31	17	17	7	15
CC100	16	26	19	16	16	11	23	15	15	9	20
FM10	20	20	32	19	19	17	17	21	23	14	19
FM25	9	29	30	17	11	10	26	17	17	18	13
FM50	11	12	31	21	13	9	15	18	20	18	13
FM100	19	33	26	11	8	13	31	18	19	8	8

APPENDICES B_1 - B_9

Summary Statistics and Three Factor

Solution for Each Treatment

Appendix B_1

STATISTICS FOR TREATMENT 'NONE' SET NUMBER 1

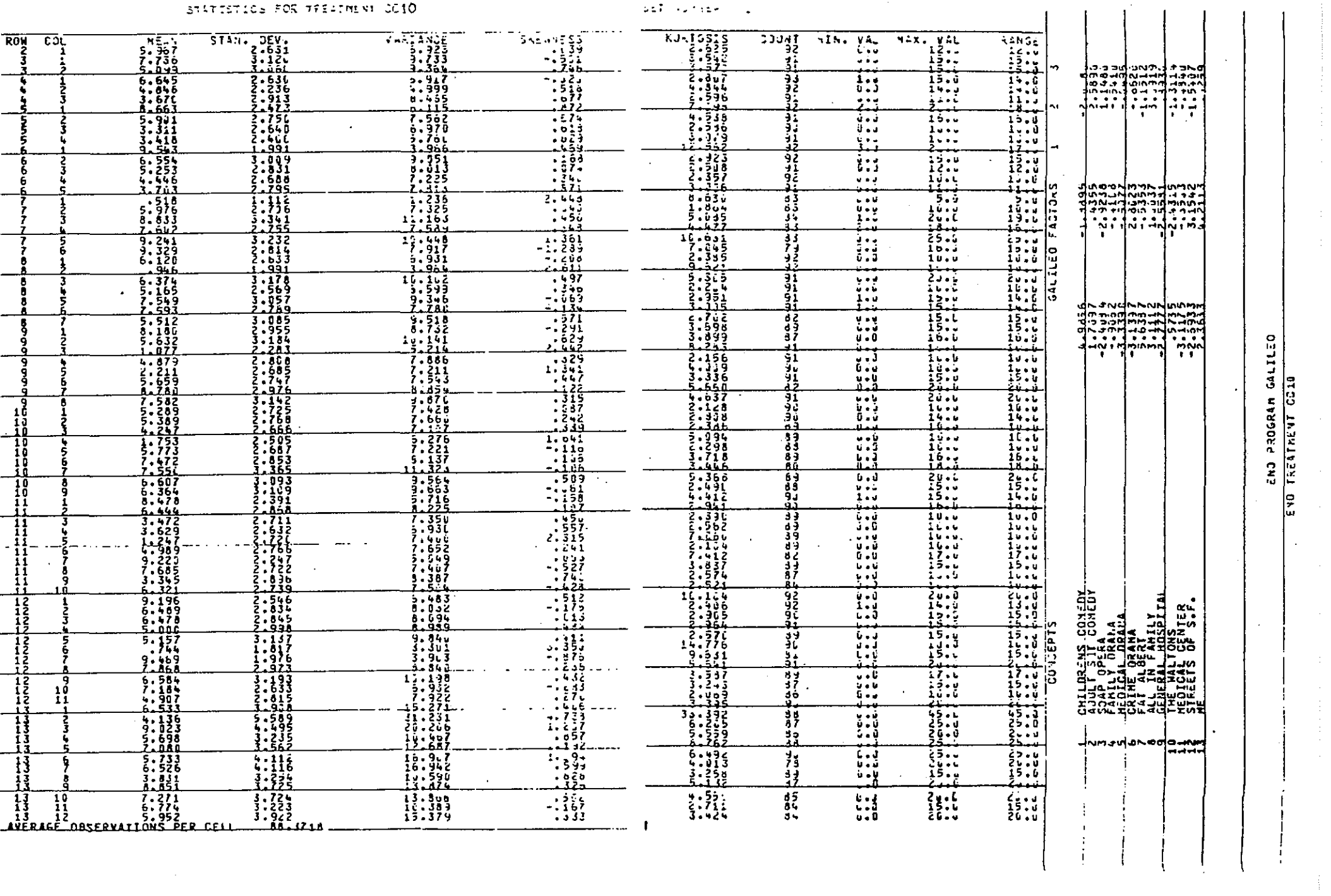
ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL.	MAX. VAL.	RANGE
2	1	6.056	5.770	33.289	5.446	38.337	59	[illegible]	[illegible]	[illegible]
3	1	8.466	5.912	34.953	4.260	3[illegible]	88	[illegible]	[illegible]	[illegible]
3	2	4.828	4.028	16.228	2.665	17.391	93	[illegible]	[illegible]	[illegible]
4	1	7.337	4.947	24.471	3.179	22.231	39	[illegible]	[illegible]	[illegible]
4	2	5.515	4.533	21.[illegible]	3.194	17.357	93	[illegible]	[illegible]	[illegible]
4	3	3.256	3.036	9.524	.948	2.884	90	[illegible]	[illegible]	[illegible]
5	1	3.528	4.517	2[illegible]	3.604	27.619	59	[illegible]	[illegible]	[illegible]
5	2	6.44[illegible]	4.490	2[illegible].155	3.[illegible]	17.311	91	[illegible]	[illegible]	[illegible]
5	3	3.3[illegible]	4.259	19.143	3.229	13.439	90	[illegible]	[illegible]	[illegible]
5	4	2.932	2.557	6.568	1.188	4.378	92	[illegible]	[illegible]	[illegible]
6	1	3.023	3.4[illegible]4	11.590	.253	5.216	88	[illegible]	[illegible]	[illegible]
6	2	6.791	4.031	1[illegible].737	2.211	13.277	91	[illegible]	[illegible]	[illegible]
6	3	5.244	5.3[illegible]9	39.[illegible]7	4.641	3[illegible]	9[illegible]	[illegible]	[illegible]	[illegible]
6	4	4.13[illegible]	4.6[illegible]4	21.2[illegible]	3.867	21.899	92	[illegible]	[illegible]	[illegible]
6	5	3.957	3.156	10.150	.592	2.275	92	[illegible]	[illegible]	[illegible]
7	1	.95[illegible]	2.1[illegible]9	[illegible].447	3.176	12.9[illegible]8	3[illegible]	[illegible]	[illegible]	[illegible]
7	2	6.4[illegible]7	7.718	59.575	4.391	25.193	91	[illegible]	[illegible]	[illegible]
7	3	8.654	7.293	53.199	4.371	25.521	81	[illegible]	[illegible]	[illegible]
7	4	7.5[illegible]	4.8[illegible]3	23.[illegible]71	3.736	27.377	73	[illegible]	[illegible]	[illegible]
7	5	9.075	4.438	19.694	3.883	3[illegible].259	8[illegible]	[illegible]	[illegible]	[illegible]
7	6	9.722	5.224	27.293	5.717	45.212	79	[illegible]	[illegible]	[illegible]
8	1	7.371	6.419	41.220	4.663	29.449	89	[illegible]	[illegible]	[illegible]
8	2	1.289	2.630	5.917	2.452	7.913	93	[illegible]	[illegible]	[illegible]
8	3	7.079	5.1[illegible]6	25.072	3.873	24.190	89	[illegible]	[illegible]	[illegible]
8	4	5.522	4.392	19.293	2.166	12.365	92	[illegible]	[illegible]	[illegible]
8	5	7.833	4.420	19.539	4.143	31.625	93	[illegible]	[illegible]	[illegible]
8	6	8.554	6.728	45.269	4.980	31.39[illegible]	92	[illegible]	[illegible]	[illegible]
8	7	7.[illegible]	6.959	48.569	4.268	24.873	73	[illegible]	[illegible]	[illegible]
9	1	8.884	5.729	32.824	4.648	33.296	35	[illegible]	[illegible]	[illegible]
9	2	6.172	4.831	23.338	2.577	13.976	87	[illegible]	[illegible]	[illegible]
9	3	1.269	2.572	6.616	2.631	8.855	87	[illegible]	[illegible]	[illegible]
9	4	4.738	4.054	15.431	2.689	17.406	89	[illegible]	[illegible]	[illegible]
9	5	2.239	4.156	17.273	3.851	23.535	88	[illegible]	[illegible]	[illegible]
9	6	6.719	6.560	43.033	4.600	25.910	89	[illegible]	[illegible]	[illegible]
9	7	9.333	6.496	42.[illegible]62	4.587	27.37[illegible]	75	[illegible]	[illegible]	[illegible]
9	8	8.224	5.2[illegible]3	27.[illegible]58	3.920	49.332	85	[illegible]	[illegible]	[illegible]
10	1	6.1[illegible]9	3.456	11.9[illegible]1	.589	4.854	35	[illegible]	[illegible]	[illegible]
10	2	5.311	6.461	41.746	4.940	31.499	90	[illegible]	[illegible]	[illegible]
10	3	4.456	4.434	19.658	2.734	14.646	83	[illegible]	[illegible]	[illegible]
10	4	1.824	2.8[illegible]9	[illegible].233	1.689	4.819	9[illegible]	[illegible]	[illegible]	[illegible]
10	5	6.8[illegible]2	6.031	35.378	4.590	31.453	91	[illegible]	[illegible]	[illegible]
10	6	7.957	6.217	38.647	4.775	36.825	91	[illegible]	[illegible]	[illegible]
10	7	7.737	5.6[illegible]2	31.375	5.507	42.771	75	[illegible]	[illegible]	[illegible]
10	8	7.195	5.388	29.[illegible]31	5.659	45.897	87	[illegible]	[illegible]	[illegible]
10	9	6.627	4.928	24.282	3.586	25.67[illegible]	83	[illegible]	[illegible]	[illegible]
11	1	8.239	3.122	9.750	.546	6.536	88	[illegible]	[illegible]	[illegible]
11	2	7.344	5.758	33.275	5.[illegible]	35.955	90	[illegible]	[illegible]	[illegible]
11	3	3.742	4.639	22.[illegible]79	3.175	16.274	89	[illegible]	[illegible]	[illegible]
11	4	3.357	3.341	11.166	1.841	8.312	90	[illegible]	[illegible]	[illegible]
11	5	.578	1.657	2.777	4.257	23.117	95	[illegible]	[illegible]	[illegible]
11	6	5.6[illegible]	4.8[illegible]2	23.151	3.999	29.341	9[illegible]	[illegible]	[illegible]	[illegible]
11	7	8.737	5.435	29.536	5.572	43.964	76	[illegible]	[illegible]	[illegible]
11	8	7.941	5.1[illegible]	26.832	6.174	51.345	85	[illegible]	[illegible]	[illegible]
11	9	3.362	4.276	19.253	3.196	18.546	84	[illegible]	[illegible]	[illegible]
11	10	6.635	5.528	30.561	5.598	44.657	95	[illegible]	[illegible]	[illegible]
12	1	8.644	5.4[illegible]6	41.[illegible]4	4.346	26.832	87	[illegible]	[illegible]	[illegible]
12	2	7.7[illegible]	5.726	32.783	5.[illegible]	35.729	90	[illegible]	[illegible]	[illegible]
12	3	6.25[illegible]	5.146	37.778	4.697	31.840	93	[illegible]	[illegible]	[illegible]
12	4	4.905	5.748	33.038	5.515	43.338	93	[illegible]	[illegible]	[illegible]
12	5	5.[illegible]2	4.7[illegible]5	22.[illegible]34	4.643	34.[illegible]9	93	[illegible]	[illegible]	[illegible]
12	6	.393	1.975	3.9[illegible]1	3.[illegible]12	12.542	92	[illegible]	[illegible]	[illegible]
12	7	9.7[illegible]4	5.4[illegible]4	29.2[illegible]0	5.595	45.3[illegible]7	75	[illegible]	[illegible]	[illegible]
12	8	8.047	5.255	27.719	5.737	47.399	95	[illegible]	[illegible]	[illegible]
12	9	[illegible]	3.639	15.2[illegible]	2.675	17.636	83	[illegible]	[illegible]	[illegible]
12	10	7.373	3.515	12.499	2.844	2[illegible].873	95	[illegible]	[illegible]	[illegible]
12	11	5.[illegible]	3.395	11.523	[illegible].186	5.493	88	[illegible]	[illegible]	[illegible]
13	1	7.4[illegible]	5.3[illegible]6	39.756	3.993	25.333	93	[illegible]	[illegible]	[illegible]
13	2	[illegible].535	3.[illegible]3	9.801	.725	[illegible].546	89	[illegible]	[illegible]	[illegible]
13	3	3.545	5.778	33.334	4.174	31.238	85	[illegible]	[illegible]	[illegible]
13	4	5.517	4.577	2[illegible].946	2.157	1[illegible].135	93	[illegible]	[illegible]	[illegible]
13	5	7.4[illegible]	5.[illegible]8	26.218	4.111	29.291	93	[illegible]	[illegible]	[illegible]
13	6	[illegible]	3.639	13.[illegible]4	.[illegible]41	1.957	93	[illegible]	[illegible]	[illegible]
13	7	7.345	5.3[illegible]7	[illegible]	3.563	21.557	73	[illegible]	[illegible]	[illegible]
13	8	4.54[illegible]	4.6[illegible]3	21.333	2.365	12.232	37	[illegible]	[illegible]	[illegible]
13	9	5.775	5.057	25.574	2.961	[illegible]	9[illegible]	[illegible]	[illegible]	[illegible]
13	10	9.976	4.[illegible]7	15.541	.343	3.33[illegible]	35	[illegible]	[illegible]	[illegible]
13	11	7.4[illegible]5	4.[illegible]7	[illegible]	2.128	11.545	39	[illegible]	[illegible]	[illegible]
13	12	6.[illegible]57	3.5[illegible]	15.301	.851	4.433	39	[illegible]	[illegible]	[illegible]

AVERAGE OBSERVATIONS PER CELL 86.9515

	CONCEPTS	GALILEO FACTORS 1	2	3
1	CHILDRENS COMEDY	4.5957	-1.3297	-2.6227
2	ADULT SIT COMEDY	2.33[illegible]6	.5527	-2.7753
3	SOAP OPERA	-2.5947	-2.1727	1.5[illegible]34
4	FAMILY DRAMA	-1.1612	-.1597	.4641
5	MEDICAL DRAMA	-3.3922	-.3449	-.1359
6	CRIME DRAMA	-2.5823	2.31[illegible]8	-2.[illegible]97
7	FAT ALBERT	5.2433	-1.7854	-2.3131
8	ALL IN FAMILY	3.1152	1.5049	3.4991
9	GENERAL HOSPITAL	-3.3448	-2.2492	1.0303
10	THE WALTONS	[illegible]	-2.7672	.6354
11	MEDICAL CENTER	-3.[illegible]74	-.8697	-.6736
12	STREETS OF S.F.	-2.2858	2.6521	-2.4253
13	ME	2.38[illegible]7	4.[illegible]30	.5456

END PROGRAM GALILEO

Appendix B_2



Appendix B_3

STATISTICS FOR TREATMENT CC25 SET NUMBER 1

ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
2	1	14.484	6.996	48.938	-.128	2.443	93	0.0	30.0	30.0
3	1	19.890	8.791	77.285	.972	5.938	91	0.0	50.0	50.0
3	2	11.978	8.051	64.822	1.321	6.983	90	0.0	50.0	50.0
4	1	17.882	10.939	119.653	2.444	12.330	93	0.0	75.0	75.0
4	2	12.774	7.851	61.637	1.247	6.765	93	0.0	50.0	50.0
4	3	9.056	9.215	84.919	2.152	9.441	90	0.0	50.0	50.0
5	1	20.978	8.104	65.670	.880	7.038	91	0.0	50.0	50.0
5	2	13.424	6.655	44.288	-.185	2.504	92	0.0	30.0	30.0
5	3	7.422	6.915	47.822	1.286	4.059	90	0.0	30.0	30.0
5	4	6.637	6.037	36.451	.915	3.455	91	0.0	25.0	25.0
6	1	23.088	7.978	63.641	-.125	9.539	91	0.0	60.0	60.0
6	2	15.154	6.694	44.811	-.171	2.476	91	0.0	30.0	30.0
6	3	10.596	6.897	47.567	.564	2.736	89	0.0	30.0	30.0
6	4	10.022	6.965	48.505	.421	2.646	91	0.0	30.0	30.0
6	5	8.247	6.556	42.982	.815	3.175	93	0.0	30.0	30.0
7	1	1.149	3.416	11.567	3.740	17.489	87	0.0	20.0	20.0
7	2	14.655	10.837	117.444	1.488	6.704	87	0.0	60.0	60.0
7	3	20.595	9.283	86.170	.558	5.249	84	0.0	50.0	50.0
7	4	19.226	11.536	133.080	1.634	8.935	84	0.0	75.0	75.0
7	5	23.776	10.040	100.809	1.152	5.937	85	0.0	60.0	60.0
7	6	24.139	9.969	99.386	.818	9.158	79	0.0	70.0	70.0
8	1	15.237	7.406	54.847	.946	6.455	93	0.0	50.0	50.0
8	2	1.378	4.069	16.559	4.816	19.901	92	0.0	25.0	25.0
8	3	16.267	9.300	86.484	.879	5.232	90	0.0	50.0	50.0
8	4	15.054	11.541	133.204	2.308	11.013	92	0.0	75.0	75.0
8	5	18.956	8.686	75.405	.776	5.149	91	0.0	50.0	50.0
8	6	21.670	9.641	92.946	2.401	13.847	91	5.0	75.0	70.0
8	7	15.500	9.217	84.948	1.038	5.519	86	0.0	50.0	50.0
9	1	19.310	7.706	59.386	.508	6.196	87	0.0	50.0	50.0
9	2	13.644	8.228	67.701	.964	5.836	87	0.0	50.0	50.0
9	3	1.044	2.436	5.932	2.509	8.628	91	0.0	10.0	10.0
9	4	11.568	9.508	90.404	1.269	5.071	88	0.0	50.0	50.0
9	5	4.046	6.002	36.021	1.713	5.402	87	0.0	25.0	25.0
9	6	17.315	11.686	136.553	1.696	6.541	89	0.0	60.0	60.0
9	7	21.037	9.177	84.209	.418	5.448	81	0.0	50.0	50.0
9	8	19.931	11.042	121.926	1.652	7.601	87	0.0	70.0	70.0
10	1	13.511	8.563	73.331	1.603	7.916	90	0.0	50.0	50.0
10	2	13.678	6.989	48.841	.521	2.535	90	0.0	30.0	30.0
10	3	10.722	6.962	48.467	.513	2.587	90	0.0	30.0	30.0
10	4	2.922	5.941	35.294	2.642	10.193	90	0.0	30.0	30.0
10	5	14.780	9.030	81.534	1.486	6.558	91	0.0	50.0	50.0
10	6	19.713	9.517	90.573	1.909	9.346	87	0.0	60.0	60.0
10	7	18.256	9.264	85.825	.596	4.964	82	0.0	50.0	50.0
10	8	17.966	11.469	131.533	2.070	10.334	88	0.0	75.0	75.0
10	9	17.419	12.266	150.453	1.977	8.998	86	0.0	75.0	75.0
11	1	19.462	6.868	47.172	.395	6.651	91	0.0	50.0	50.0
11	2	14.446	6.926	47.964	-.190	2.517	92	0.0	30.0	30.0
11	3	7.857	7.407	54.870	2.475	13.161	91	0.0	50.0	50.0
11	4	8.604	8.281	68.569	2.089	9.226	91	0.0	50.0	50.0
11	5	1.098	4.866	23.675	4.917	26.287	92	0.0	30.0	30.0
11	6	13.341	10.056	101.126	2.136	9.484	91	0.0	60.0	60.0
11	7	21.904	7.640	58.376	.431	6.726	83	0.0	50.0	50.0
11	8	20.222	9.414	88.617	1.398	5.617	90	3.0	50.0	47.0
11	9	6.575	6.829	46.635	.922	3.216	87	0.0	30.0	30.0
11	10	16.264	9.923	98.470	2.166	12.040	87	0.0	70.0	70.0
12	1	23.087	6.995	48.927	-.204	7.540	92	0.0	50.0	50.0
12	2	16.165	8.196	67.171	.507	4.810	91	0.0	50.0	50.0
12	3	13.811	8.218	67.531	.903	5.648	90	0.0	50.0	50.0
12	4	11.637	8.858	78.473	1.777	8.579	91	0.0	50.0	50.0
12	5	13.022	8.394	70.455	1.811	4.399	92	0.0	40.0	40.0
12	6	2.526	7.972	63.553	4.930	32.173	89	0.0	60.0	60.0
12	7	22.975	8.642	74.691	1.652	13.706	81	0.0	70.0	70.0
12	8	21.523	10.679	114.045	2.226	10.865	88	0.0	75.0	75.0
12	9	15.800	10.582	111.972	2.473	13.560	85	0.0	75.0	75.0
12	10	18.453	7.400	54.759	.035	3.672	86	0.0	40.0	40.0
12	11	13.080	10.300	106.096	2.867	16.426	88	0.0	75.0	75.0
13	1	16.667	13.117	172.051	1.729	7.223	87	0.0	75.0	75.0
13	2	8.845	7.520	56.543	.909	2.792	88	0.0	25.0	25.0
13	3	20.403	11.292	127.513	-.025	3.139	77	0.0	50.0	50.0
13	4	12.907	10.736	116.543	1.522	5.838	86	0.0	50.0	50.0
13	5	17.448	12.804	163.948	.955	3.973	87	0.0	60.0	60.0
13	6	15.353	12.392	153.570	1.462	6.513	85	0.0	70.0	70.0
13	7	15.936	12.676	160.624	1.257	5.943	78	0.0	70.0	70.0
13	8	[illegible]	[illegible]	[illegible]	2.087	11.439	88	0.0	70.0	70.0
[illegible]	9	[illegible]	[illegible]	[illegible]	.238	3.528	74	0.0	50.0	50.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.416	5.885	79	0.0	70.0	70.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

CONCEPTS — GALILEO FACTORS

	CONCEPTS	1	2	3
1	CHILDRENS COMEDY	12.1170	-4.3735	-4.3670
2	ADULT SIT COMEDY	4.1434	2.9587	5.2958
3	SOAP OPERA	-5.6701	-5.0832	2.3161
4	FAMILY DRAMA	-3.2326	-.3177	-1.5612
5	MEDICAL DRAMA	-8.3854	-1.8932	2.1680
6	CRIME DRAMA	-8.9412	6.4329	-3.7158
7	FAT ALBERT	13.6480	-2.0798	-4.4325
8	ALL IN FAMILY	8.8591	3.8083	8.0477
9	GENERAL HOSPITAL	-5.5808	-7.0161	3.5393
10	THE WALTONS	2.1321	-5.3645	-3.3585
11	MEDICAL CENTER	-6.6963	-2.9863	.5752
12	STREETS OF S.F.	-7.5649	6.4811	-5.3186
13	ME	5.0719	9.4334	.8114

END PROGRAM GALILEO

END TREATMENT CC25

Appendix B_4

STATISTICS FOR TREATMENT CC50 — SET NUMBER 1

ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
2	1	32.622	17.368	301.635	1.393	6.597	90	0.0	100.0	100.0
3	1	41.722	19.111	365.223	.252	4.758	9	0.0	100.0	100.0
3	2	22.489	15.775	248.841	.631	3.461	88	0.0	80.0	80.0
4	1	34.315	17.459	304.822	1.013	5.313	89	0.0	100.0	100.0
4	2	25.159	14.835	220.066	.296	2.370	88	0.0	65.0	65.0
4	3	15.678	15.513	240.663	2.181	11.062	90	0.0	100.0	100.0
5	1	43.209	16.569	274.517	.583	5.277	91	0.0	100.0	100.0
5	2	27.539	14.563	212.091	.272	2.622	89	0.0	70.0	70.0
5	3	14.879	14.688	215.733	1.899	9.173	91	0.0	90.0	90.0
5	4	13.753	11.449	131.085	.935	3.561	89	0.0	50.0	50.0
6	1	48.833	14.280	203.917	-.566	9.517	90	0.0	100.0	100.0
6	2	31.011	16.126	260.034	.432	3.897	88	0.0	90.0	90.0
6	3	23.516	15.338	235.261	1.029	5.456	91	0.0	90.0	90.0
6	4	22.640	14.103	198.904	.396	2.398	89	0.0	50.0	50.0
6	5	17.467	14.316	204.960	.898	2.957	90	0.0	50.0	50.0
7	1	3.458	8.204	67.308	3.202	15.048	83	0.0	50.0	50.0
7	2	29.288	16.876	284.805	.825	5.488	8.	0.0	100.0	100.0
7	3	43.405	19.677	387.170	.639	4.525	84	0.0	100.0	100.0
7	4	37.744	14.591	212.898	.352	5.725	82	0.0	100.0	100.0
7	5	46.951	18.753	351.681	.773	5.353	82	0.0	100.0	100.0
7	6	52.188	20.076	403.027	.719	4.620	80	0.0	100.0	100.0
8	1	34.857	18.163	329.903	1.065	5.043	91	0.0	100.0	100.0
8	2	4.728	10.165	103.328	2.863	11.398	92	0.0	50.0	50.0
8	3	32.267	18.107	327.862	.463	3.865	90	0.0	100.0	100.0
8	4	28.764	17.293	299.034	.543	3.583	89	0.0	90.0	90.0
8	5	40.393	20.393	415.857	1.031	4.590	89	5.0	100.0	95.0
8	6	41.180	20.718	429.226	.887	4.144	89	5.0	100.0	95.0
8	7	30.317	18.319	335.582	.786	4.174	82	0.0	100.0	100.0
9	1	42.089	18.947	358.992	.385	4.785	90	0.0	100.0	100.0
9	2	27.674	16.223	263.196	.352	2.831	86	0.0	80.0	80.0
9	3	4.272	10.154	103.111	2.935	11.686	92	0.0	50.0	50.0
9	4	19.886	16.512	272.646	1.615	7.660	88	0.0	100.0	100.0
9	5	11.205	13.601	184.981	1.471	4.532	88	0.0	50.0	50.0
9	6	32.337	18.738	351.100	.916	5.009	89	0.0	100.0	100.0
9	7	44.892	22.274	496.145	.394	3.870	83	0.0	100.0	100.0
9	8	39.460	22.261	495.559	.591	3.570	87	0.0	100.0	100.0
10	1	29.685	17.715	313.834	.312	3.339	89	0.0	90.0	90.0
10	2	28.279	15.015	225.457	.191	2.459	86	0.0	70.0	70.0
10	3	17.989	15.731	247.455	.709	2.386	90	0.0	50.0	50.0
10	4	7.148	12.812	164.149	1.994	6.135	88	0.0	50.0	50.0
10	5	30.584	17.665	312.063	.849	4.723	89	0.0	100.0	100.0
10	6	40.191	18.580	345.233	.420	4.609	89	0.0	100.0	100.0
10	7	40.878	19.437	377.814	.896	4.643	82	0.0	100.0	100.0
10	8	35.770	20.714	429.051	.611	3.603	87	0.0	100.0	100.0
10	9	33.388	21.674	469.743	.886	4.190	85	0.0	100.0	100.0
11	1	43.489	18.947	359.005	.832	4.771	90	0.0	100.0	100.0
11	2	31.759	15.832	223.953	.302	3.125	87	0.0	80.0	80.0
11	3	18.637	15.330	235.000	1.531	6.810	91	0.0	90.0	90.0
11	4	15.483	12.292	151.164	.973	3.968	89	0.0	50.0	50.0
11	5	2.582	8.911	79.408	3.947	18.515	91	0.0	50.0	50.0
11	6	26.856	18.522	343.057	.864	4.047	9.	0.0	100.0	100.0
11	7	46.771	19.040	362.514	.993	5.232	83	0.0	100.0	100.0
11	8	38.632	20.032	401.290	.657	4.096	87	0.0	100.0	100.0
11	9	17.000	20.305	412.302	1.702	5.917	85	0.0	100.0	100.0
11	10	34.035	20.182	407.313	.727	4.008	86	0.0	100.0	100.0
12	1	48.800	14.449	208.778	.515	6.131	9.	10.0	100.0	90.0
12	2	33.716	14.247	202.976	-.326	2.312	88	0.0	65.0	65.0
12	3	29.600	14.882	221.462	.572	4.497	90	0.0	90.0	90.0
12	4	22.364	13.853	191.913	.230	2.353	88	0.0	50.0	50.0
12	5	25.944	14.299	204.458	.293	2.375	89	0.0	50.0	50.0
12	6	4.311	11.658	135.903	3.036	11.283	90	0.0	50.0	50.0
12	7	48.695	17.899	320.358	.646	5.482	82	0.0	100.0	100.0
12	8	41.128	18.818	355.135	.530	4.411	85	0.0	100.0	100.0
12	9	32.847	20.756	430.553	1.239	5.257	85	0.0	100.0	100.0
12	10	40.882	19.272	371.393	.712	4.637	85	0.0	100.0	100.0
12	11	26.412	18.176	330.360	.780	4.319	85	0.0	100.0	100.0
13	1	37.965	24.058	578.387	1.389	7.141	85	0.0	145.0	145.0
13	2	19.523	21.549	464.346	1.845	7.164	88	0.0	100.0	100.0
13	3	45.256	27.397	750.575	1.024	5.365	78	0.0	155.0	155.0
13	4	31.212	21.929	480.873	.946	4.331	85	0.0	100.0	100.0
13	5	34.881	21.171	448.206	.843	4.272	84	0.0	100.0	100.0
13	6	32.881	20.069	402.772	.631	3.995	85	0.0	100.0	100.0
13	7	33.727	24.375	594.120	.568	3.37.	77	0.0	100.0	100.0
13	8	23.634	21.478	461.321	1.194	4.622	87	0.0	100.0	100.0
13	9	46.750	24.964	623.188	.471	3.316	80	0.0	100.0	100.0
13	10	40.432	25.582	654.443	.554	3.472	81	0.0	[illegible]	[illegible]
13	11	4[illegible].179	23.048	[illegible].215	.875	3.496	84	[illegible]	[illegible]	[illegible]
13	12	[illegible]	[illegible]	[illegible]	1.175	3.714	[illegible]	[illegible]	[illegible]	[illegible]

	CONCEPTS	GALILEO FACTORS 1	2	3
1	CHILDRENS COMEDY	25.1824	-10.7206	-12.6234
2	ADULT SIT COMEDY	8.1563	5.2735	11.8641
3	SOAP OPERA	-11.3041	-14.4021	7.7004
4	FAMILY DRAMA	-13.3831	-3.8359	-1.6928
5	MEDICAL DRAMA	-15.3421	-11.3686	-2.0439
6	CRIME DRAMA	-17.7731	14.2231	-3.3702
7	FAT ALBERT	29.8226	-3.5494	-7.7462
8	ALL IN FAMILY	15.8079	7.7628	13.1912
9	GENERAL HOSPITAL	-13.1754	-13.7262	13.1312
10	THE WALTONS	-2.3575	15.0687	-2.1139
11	MEDICAL CENTER	-15.0575	-4.0676	-2.0615
12	STREETS OF S.F.	-15.2047	13.1047	-10.0339
13	ME	12.9958	32.5686	.2307

Appendix B_5

STATISTICS FOR TREATMENT CC100 SET NUMBER 1

ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
2	1	60.822	34.325	1178.213	1.600	7.296	90	1.0	200.0	199.0
3	1	80.648	48.199	2323.183	3.190	23.035	88	0.0	400.0	400.0
3	2	46.110	31.143	969.878	.367	2.118	91	0.0	120.0	120.0
4	1	68.477	30.625	937.863	.474	6.094	88	0.0	200.0	200.0
4	2	48.000	29.985	899.109	.663	3.365	92	0.0	150.0	150.0
4	3	24.333	27.483	755.289	1.460	4.296	90	0.0	105.0	105.0
5	1	86.176	36.067	1300.804	.140	4.797	91	0.0	200.0	200.0
5	2	58.022	31.576	997.065	.872	5.778	92	1.0	200.0	199.0
5	3	21.910	22.978	527.969	1.483	5.127	89	0.0	100.0	100.0
5	4	21.489	21.199	449.402	1.230	4.371	92	0.0	100.0	100.0
6	1	97.161	29.058	844.372	2.591	29.022	93	0.0	300.0	300.0
6	2	62.725	42.079	1770.639	3.293	24.375	91	0.0	350.0	350.0
6	3	34.382	24.788	614.461	.419	2.593	89	0.0	100.0	100.0
6	4	35.620	25.724	651.714	.490	2.456	92	0.0	105.0	105.0
6	5	36.657	41.055	1685.533	3.156	19.471	90	0.0	300.0	300.0
7	1	4.713	10.102	102.055	2.970	13.430	88	0.0	60.0	60.0
7	2	59.088	29.103	846.980	.851	1.928	80	0.0	110.0	110.0
7	3	85.883	37.042	1372.103	.121	4.760	77	0.0	200.0	200.0
7	4	76.608	38.868	1510.694	1.991	14.845	79	0.0	300.0	300.0
7	5	97.064	45.612	2080.445	3.234	18.104	78	0.0	350.0	350.0
7	6	101.560	35.088	1231.153	2.403	16.285	75	10.0	300.0	290.0
8	1	65.204	35.339	1248.872	.561	4.212	93	0.0	200.0	200.0
8	2	7.457	16.570	274.574	3.241	15.123	92	0.0	100.0	100.0
8	3	58.386	32.741	1071.942	.848	5.348	88	0.0	200.0	200.0
8	4	48.280	38.820	1507.019	3.142	20.150	93	0.0	300.0	300.0
8	5	81.253	43.495	1891.815	2.600	14.733	91	10.0	300.0	290.0
8	6	75.807	30.797	948.429	.424	5.189	88	10.0	200.0	190.0
8	7	59.803	40.352	1628.316	1.033	4.903	76	0.0	200.0	200.0
9	1	82.000	39.157	1533.268	.478	4.872	82	0.0	200.0	200.0
9	2	56.398	30.617	937.395	-.284	1.979	83	0.0	100.0	100.0
9	3	10.024	22.552	508.602	2.477	8.513	83	0.0	100.0	100.0
9	4	33.928	25.157	632.862	.882	4.398	83	0.0	133.0	133.0
9	5	21.914	31.647	1001.560	1.492	3.922	81	0.0	115.0	115.0
9	6	60.568	27.993	783.603	-.185	2.019	81	0.0	100.0	100.0
9	7	84.519	40.248	1619.898	.518	5.142	72	0.0	220.0	220.0
9	8	72.300	32.581	1061.510	.282	4.944	80	0.0	200.0	200.0
10	1	52.820	39.491	1559.563	2.085	10.576	89	0.0	250.0	250.0
10	2	59.287	32.570	1060.802	1.224	5.368	87	0.0	190.0	190.0
10	3	35.682	29.460	867.888	.667	2.449	87	0.0	103.0	103.0
10	4	14.705	24.376	594.208	2.033	6.468	88	0.0	100.0	100.0
10	5	55.329	41.888	1754.644	2.349	14.336	85	0.0	300.0	300.0
10	6	77.193	37.167	1381.360	2.260	16.500	83	10.0	300.0	290.0
10	7	70.521	37.975	1442.085	.433	3.629	73	0.0	200.0	200.0
10	8	66.726	34.473	1188.413	.658	5.005	84	0.0	200.0	200.0
10	9	61.286	39.366	1549.685	.151	2.325	77	0.0	170.0	170.0
11	1	89.412	51.850	2688.407	3.165	19.109	85	0.0	400.0	400.0
11	2	64.494	30.736	944.673	.711	5.699	85	5.0	200.0	195.0
11	3	25.405	22.900	524.431	1.033	4.004	84	0.0	100.0	100.0
11	4	26.535	21.067	443.807	.631	2.503	86	0.0	80.0	80.0
11	5	7.369	21.222	450.376	3.307	12.967	84	0.0	100.0	100.0
11	6	46.788	29.076	845.417	.250	1.995	80	0.0	100.0	100.0
11	7	90.973	34.214	1170.594	.647	6.112	74	0.0	200.0	200.0
11	8	75.927	43.495	1891.775	3.105	17.512	82	5.0	300.0	295.0
11	9	27.705	30.992	960.490	.990	2.829	78	0.0	100.0	100.0
11	10	64.866	38.689	1496.372	.662	4.486	82	0.0	200.0	200.0
12	1	92.659	33.441	1118.316	4.802	40.808	88	3.0	350.0	347.0
12	2	68.721	43.112	1358.620	3.123	21.810	86	1.0	350.0	349.0
12	3	50.174	25.723	651.679	.263	2.530	86	0.0	100.0	100.0
12	4	47.793	32.188	1036.072	.586	2.776	87	0.0	150.0	150.0
12	5	53.884	46.937	2203.103	2.053	10.519	86	0.0	300.0	300.0
12	6	11.108	27.524	757.591	3.065	12.385	83	0.0	150.0	150.0
12	7	97.394	36.295	1317.360	2.663	15.735	73	30.0	300.0	270.0
12	8	80.060	49.497	2449.913	4.067	25.643	84	5.0	400.0	395.0
12	9	64.065	28.958	838.554	.028	2.732	77	0.0	150.0	150.0
12	10	74.123	40.508	1640.893	2.108	13.314	81	0.0	300.0	300.0
12	11	44.390	33.731	1141.854	.555	2.579	82	0.0	150.0	150.0
13	1	72.989	52.202	2725.092	1.442	7.438	87	0.0	314.0	314.0
13	2	35.557	34.658	1208.633	1.018	3.302	88	0.0	150.0	150.0
13	3	81.910	48.417	2344.236	1.267	7.137	78	0.0	300.0	300.0
13	4	46.329	32.117	1031.491	.186	1.881	85	0.0	100.0	100.0
13	5	68.508	43.933	1930.107	1.738	10.432	84	0.0	300.0	300.0
13	6	56.925	49.397	2440.094	1.915	9.822	88	0.0	300.0	300.0
13	7	64.946	52.757	2783.294	3.178	21.393	74	0.0	396.0	396.0
13	8	34.390	34.264	1173.934	1.027	3.425	82	0.0	150.0	150.0
13	9	81.335	41.029	1683.351	.172	3.747	70	0.0	200.0	200.0
13	10	[illegible]	[illegible]	[illegible]	.058	2.805	79	0.0	195.0	195.0
13	11	[illegible]	[illegible]	[illegible]	.665	[illegible]	79	0.0	200.0	200.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	75	[illegible]	[illegible]	[illegible]

	CONCEPTS	GALILEO FACTORS 1	2	3
1	CHILDRENS COMEDY	52.2790	-19.3851	-19.2599
2	ADULT SIT COMEDY	17.6448	13.2901	22.8225
3	SOAP OPERA	-23.4892	-19.0061	12.6581
4	FAMILY DRAMA	-10.9317	-4.0189	-.5506
5	MEDICAL DRAMA	-33.4547	-12.3087	-.1734
6	CRIME DRAMA	-36.2074	23.9111	-9.7556
7	FAT ALBERT	59.7149	-7.3196	-10.8207
8	ALL IN FAMILY	29.1801	20.8903	28.8488
9	GENERAL HOSPITAL	-21.4796	-25.4119	13.9524
10	THE WALTONS	10.3793	-26.2189	-7.3326
11	MEDICAL CENTER	-31.4111	-8.1604	-1.4294
12	STREETS OF S.F.	-30.2088	22.8559	-24.7170
13	ME	17.9046	40.8822	-4.2428

END PROGRAM GALILEO

END TREATMENT CC100

Appendix B_6

STATISTICS FOR TREATMENT FM10 SET NUMBER 1

ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
2	1	11.927	15.027	256.875	4.030	20.424	109	0.0	100.0	100.0
3	1	15.430	15.950	237.311	3.105	13.868	106	0.0	100.0	100.0
3	2	9.215	10.113	102.231	2.710	11.778	107	0.0	60.0	60.0
4	1	12.073	14.230	202.504	3.299	15.361	110	0.0	90.0	90.0
4	2	10.918	13.921	193.794	3.733	19.504	110	0.0	100.0	100.0
4	3	6.539	10.828	117.251	5.129	36.032	107	0.0	90.0	90.0
5	1	15.667	14.237	202.794	3.138	15.154	108	4.0	100.0	96.0
5	2	11.927	15.192	230.795	3.679	17.630	110	0.0	100.0	100.0
5	3	5.413	10.107	102.151	7.605	70.539	109	0.0	100.0	100.0
5	4	6.477	4.040	16.322	.342	3.338	110	0.0	20.0	20.0
6	1	15.832	15.100	228.015	2.754	12.515	108	0.0	100.0	100.0
6	2	13.352	16.679	278.172	3.369	14.637	108	0.0	100.0	100.0
6	3	7.550	11.202	125.476	6.105	47.026	109	0.0	100.0	100.0
6	4	7.755	6.555	42.967	3.235	18.896	110	0.0	50.0	50.0
6	5	6.445	8.457	71.520	5.120	35.573	110	0.0	70.0	70.0
7	1	.736	1.678	2.817	3.293	15.013	105	0.0	10.0	10.0
7	2	11.952	15.933	253.845	3.772	18.299	105	0.0	100.0	100.0
7	3	16.250	17.007	289.251	3.500	16.354	104	0.0	100.0	100.0
7	4	15.494	19.107	357.355	3.055	12.197	104	0.0	100.0	100.0
7	5	18.371	20.311	412.519	3.088	12.114	105	3.0	100.0	97.0
7	6	19.942	21.971	482.734	2.694	9.718	103	0.0	100.0	100.0
8	1	12.311	15.954	297.433	3.683	17.003	112	0.0	100.0	100.0
8	2	1.039	2.400	5.750	2.604	9.193	112	0.0	10.0	10.0
8	3	12.037	13.037	159.962	2.857	11.263	108	0.0	70.0	70.0
8	4	9.354	12.470	155.512	4.404	28.055	109	0.0	100.0	100.0
8	5	15.316	15.179	230.399	3.302	14.881	110	2.0	100.0	98.0
8	6	17.327	20.982	440.257	2.937	10.767	110	2.0	100.0	98.0
8	7	11.429	16.154	260.959	4.185	21.696	105	0.0	100.0	100.0
9	1	15.194	14.550	211.930	3.193	15.200	108	0.0	100.0	100.0
9	2	[illegible]	12.370	153.014	4.474	28.868	109	0.0	100.0	100.0
9	3	1.222	3.304	10.914	3.952	20.629	108	0.0	20.0	20.0
9	4	3.148	11.251	126.589	5.729	43.565	108	0.0	100.0	100.0
9	5	3.315	7.202	51.873	5.072	36.483	108	0.0	60.0	60.0
9	6	10.574	10.275	105.515	3.473	18.851	108	0.0	75.0	75.0
9	7	17.427	17.954	319.139	2.785	11.634	103	0.0	100.0	100.0
9	8	14.593	15.065	258.112	3.654	18.046	103	0.0	100.0	100.0
10	1	10.402	14.233	202.577	3.648	17.349	107	0.0	90.0	90.0
10	2	10.375	12.934	166.243	3.220	14.076	107	0.0	80.0	80.0
10	3	9.358	14.136	199.833	3.295	14.545	105	0.0	80.0	80.0
10	4	2.477	4.107	16.965	2.197	8.161	107	0.0	20.0	20.0
10	5	11.576	13.754	189.441	4.001	21.611	107	0.0	100.0	100.0
10	6	15.339	17.719	313.953	3.514	15.771	107	0.0	100.0	100.0
10	7	16.311	20.237	403.473	2.750	10.155	103	0.0	100.0	100.0
10	8	13.726	15.345	236.549	3.285	15.331	105	0.0	100.0	100.0
10	9	12.719	[illegible]	[illegible]	3.947	19.185	105	0.0	100.0	100.0
11	1	14.337	12.921	[illegible]	3.567	19.877	104	0.0	100.0	100.0
11	2	12.573	14.874	221.245	3.631	17.794	110	0.0	100.0	100.0
11	3	6.459	8.979	80.615	5.556	43.270	109	0.0	80.0	80.0
11	4	5.852	7.167	51.367	4.333	26.912	108	0.0	50.0	50.0
11	5	.600	1.815	3.295	3.761	17.243	110	0.0	10.0	10.0
11	6	9.542	11.225	126.010	3.713	18.582	109	0.0	70.0	70.0
11	7	18.359	20.403	416.272	2.944	11.351	103	0.0	100.0	100.0
11	8	14.335	16.152	260.890	3.571	17.338	109	0.0	100.0	100.0
11	9	5.720	10.543	111.252	6.075	45.093	108	0.0	90.0	90.0
11	10	12.752	15.611	275.939	4.110	20.727	105	0.0	100.0	100.0
12	1	[illegible]	14.054	197.733	2.843	12.235	104	0.0	90.0	90.0
12	2	13.196	15.872	251.915	3.540	16.279	107	0.0	100.0	100.0
12	3	10.531	14.025	196.731	4.232	23.593	105	0.0	100.0	100.0
12	4	8.334	9.011	81.199	3.761	19.504	107	0.0	60.0	60.0
12	5	10.290	13.596	184.915	4.165	23.293	107	0.0	100.0	100.0
12	6	[illegible]	2.224	4.945	3.902	20.499	106	0.0	15.0	15.0
12	7	[illegible]	18.714	[illegible]	2.796	10.733	101	1.0	100.0	99.0
12	8	15.271	15.130	230.743	3.293	15.154	107	0.0	100.0	100.0
12	9	12.830	17.730	315.141	3.690	16.705	106	0.0	100.0	100.0
12	10	14.544	15.745	230.481	3.815	18.734	103	0.0	100.0	100.0
12	11	[illegible]	[illegible]	[illegible]	3.885	21.621	105	0.0	85.0	85.0
13	1	11.234	13.326	177.114	4.293	25.304	107	0.0	100.0	100.0
13	2	7.325	[illegible]	211.343	5.017	30.841	107	0.0	100.0	100.0
13	3	[illegible]	27.209	[illegible]	2.103	6.207	102	0.0	100.0	100.0
13	4	[illegible]	[illegible]	[illegible]	3.527	17.179	105	0.0	100.0	100.0
13	5	[illegible]	22.342	[illegible]	2.711	9.714	107	0.0	100.0	100.0
13	6	[illegible]	[illegible]	[illegible]	2.594	9.629	104	0.0	100.0	100.0
13	7	[illegible]	[illegible]	[illegible]	[illegible]	16.494	101	0.0	100.0	100.0
13	8	[illegible]	[illegible]	[illegible]	3.653	15.431	107	0.0	100.0	100.0
13	9	[illegible]	[illegible]	[illegible]	[illegible]	8.793	104	0.0	100.0	100.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	102	0.0	100.0	100.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	103	0.0	100.0	100.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

	CONCEPTS	GALILEO FACTORS 1	2	3
1	CHILDRENS COMEDY	7.6811	-1.9348	-6.4652
2	ADULT SIT COMEDY	3.7518	-.9636	5.4223
3	SOAP OPERA	-6.4570	-5.4046	1.4612
4	FAMILY DRAMA	-2.2307	1.5542	.0706
5	MEDICAL DRAMA	-6.4787	.1324	-.4147
6	CRIME DRAMA	-6.5303	4.9927	-1.9802
7	FAT ALBERT	10.5231	-4.9595	-3.3245
8	ALL IN FAMILY	5.1559	-1.6475	6.9743
9	GENERAL HOSPITAL	-6.7251	-5.7479	.2302
10	THE WALTONS	.4511	-2.3821	-1.7053
11	MEDICAL CENTER	-5.3274	1.4958	-.2935
12	SISTERS SE S	-4.1473	6.1350	-1.2104
13	ME	9.2357	8.5299	1.2353

Appendix B_7

STATISTICS FOR TREATMENT FM25 SET NUMBER 1

ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
2	1	25.436	19.540	381.520	2.369	9.377	94	1.0	100.0	99.0
3	1	35.489	22.851	522.165	1.352	4.410	94	0.0	100.0	100.0
3	2	21.968	18.201	331.273	2.085	8.674	95	0.0	100.0	100.0
4	1	29.075	22.177	491.833	1.883	6.165	93	0.0	100.0	100.0
4	2	20.053	13.662	186.646	2.877	15.919	94	0.0	100.0	100.0
4	3	14.213	15.121	228.657	1.913	7.641	94	0.0	85.0	85.0
5	1	36.407	20.661	426.857	1.905	6.537	91	15.0	125.0	110.0
5	2	24.809	17.612	310.197	1.926	7.780	94	0.0	100.0	100.0
5	3	12.702	14.087	198.443	1.433	4.280	94	0.0	50.0	50.0
5	4	17.147	11.113	123.494	.557	3.458	95	0.0	50.0	50.0
6	1	38.620	23.376	546.431	1.405	4.163	92	0.0	100.0	100.0
6	2	26.097	17.558	308.281	1.629	6.352	93	0.0	100.0	100.0
6	3	21.516	21.383	457.218	1.784	6.033	95	0.0	100.0	100.0
6	4	21.295	15.338	235.260	1.670	7.187	95	0.0	90.0	90.0
6	5	16.400	13.984	195.545	1.442	5.667	95	0.0	75.0	75.0
7	1	2.826	6.201	38.446	2.632	9.530	86	0.0	30.0	30.0
7	2	24.682	20.585	423.746	1.788	6.985	85	0.0	100.0	100.0
7	3	37.688	23.887	570.590	1.027	3.429	80	0.0	100.0	100.0
7	4	32.024	20.389	415.714	1.586	5.866	84	0.0	100.0	100.0
7	5	41.927	24.990	624.507	.966	2.893	82	5.0	100.0	95.0
7	6	45.613	26.026	677.337	.801	2.466	80	0.0	100.0	100.0
8	1	27.234	18.614	346.477	1.824	7.338	94	0.0	100.0	100.0
8	2	1.915	4.835	23.376	3.428	15.329	94	0.0	25.0	25.0
8	3	30.000	23.596	556.766	1.499	4.561	94	0.0	100.0	100.0
8	4	22.323	14.663	214.993	1.700	6.598	93	0.0	75.0	75.0
8	5	34.196	21.626	467.701	1.461	4.488	92	5.0	100.0	95.0
8	6	34.074	21.463	460.665	1.641	5.234	94	1.0	100.0	99.0
8	7	22.976	16.964	287.788	1.496	6.517	85	0.0	100.0	100.0
9	1	33.573	23.102	533.683	1.414	4.849	89	0.0	110.0	110.0
9	2	23.966	19.487	379.757	2.015	8.356	87	0.0	110.0	110.0
9	3	2.022	6.807	46.329	4.837	29.976	91	0.0	50.0	50.0
9	4	20.275	14.850	220.529	1.968	10.689	91	0.0	100.0	100.0
9	5	10.348	12.383	153.336	1.306	4.324	92	0.0	50.0	50.0
9	6	27.637	19.150	366.715	1.411	4.995	91	0.0	100.0	100.0
9	7	39.901	26.104	681.422	1.007	2.989	81	0.0	100.0	100.0
9	8	33.800	23.514	552.916	1.422	4.230	90	5.0	100.0	95.0
10	1	21.276	19.467	378.981	2.628	12.344	87	0.0	125.0	125.0
10	2	24.375	21.032	442.325	1.815	6.321	88	0.0	100.0	100.0
10	3	17.736	16.966	287.843	2.379	10.766	91	0.0	100.0	100.0
10	4	4.689	12.327	151.948	5.429	40.198	90	0.0	100.0	100.0
10	5	27.378	21.205	449.657	1.610	5.375	90	0.0	100.0	100.0
10	6	35.956	22.117	489.163	1.556	4.868	91	0.0	100.0	100.0
10	7	36.778	29.067	844.889	1.366	4.434	81	0.0	145.0	145.0
10	8	32.326	22.494	505.972	1.326	4.212	89	0.0	100.0	100.0
10	9	25.943	21.669	469.554	1.536	5.600	88	0.0	100.0	100.0
11	1	34.833	20.289	411.628	1.665	6.413	90	0.0	125.0	125.0
11	2	27.813	19.918	396.745	1.536	5.629	91	0.0	100.0	100.0
11	3	15.817	16.417	269.526	2.266	10.561	93	0.0	100.0	100.0
11	4	15.505	12.315	151.649	1.525	7.886	93	0.0	75.0	75.0
11	5	1.663	8.491	72.093	7.354	61.345	92	0.0	75.0	75.0
11	6	23.500	17.400	302.772	1.858	7.378	92	0.0	100.0	100.0
11	7	39.765	24.706	610.402	1.087	3.094	81	0.0	100.0	100.0
11	8	34.385	24.279	539.489	1.497	4.405	91	5.0	110.0	105.0
11	9	12.978	13.399	179.543	1.533	6.067	92	0.0	70.0	70.0
11	10	28.593	20.084	403.362	1.438	5.249	91	0.0	100.0	100.0
12	1	37.457	20.048	401.916	1.438	4.446	90	15.0	100.0	85.0
12	2	28.587	20.224	409.025	1.493	5.292	92	0.0	100.0	100.0
12	3	26.815	20.896	436.651	1.701	6.008	92	0.0	100.0	100.0
12	4	21.160	16.195	262.283	1.608	7.618	94	0.0	100.0	100.0
12	5	23.043	18.681	348.976	1.838	6.949	92	0.0	100.0	100.0
12	6	1.372	5.159	26.617	5.527	37.123	94	0.0	40.0	40.0
12	7	41.716	25.073	628.645	1.183	3.105	81	10.0	100.0	90.0
12	8	35.253	24.665	508.343	1.561	4.760	91	10.0	125.0	115.0
12	9	30.527	20.607	424.645	1.488	5.273	91	0.0	100.0	100.0
12	10	36.589	24.508	500.620	1.355	4.003	90	0.0	100.0	100.0
12	11	24.200	21.773	474.049	2.004	6.746	90	0.0	100.0	100.0
13	1	32.822	26.723	714.112	1.465	4.236	89	0.0	100.0	100.0
13	2	15.567	21.688	470.357	2.701	10.507	90	0.0	100.0	100.0
13	3	45.675	32.580	1051.448	.628	2.056	83	0.0	100.0	100.0
13	4	23.933	18.528	343.276	2.130	8.604	89	0.0	103.0	103.0
13	5	29.335	23.281	542.991	1.568	5.087	86	0.0	100.0	100.0
13	6	23.056	23.206	538.519	1.792	5.975	90	0.0	100.0	100.0
13	7	31.077	28.949	838.071	1.350	3.634	78	0.0	100.0	100.0
13	8	16.303	23.402	547.650	2.507	8.860	89	0.0	107.0	107.0
13	9	46.012	31.152	972.303	.819	2.344	81	0.0	125.0	125.0
13	10	32.727	27.93[illegible]	[illegible]	1.435	[illegible].994	82	0.[illegible]	108.0	108.0
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	1.572	[illegible].737	86	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	85	[illegible]	[illegible]	[illegible]

	CONCEPTS	GALILEO FACTORS 1	2	3
1	CHILDRENS COMEDY	18.4976	-9.5364	6.1229
2	ADULT SIT COMEDY	7.6374	1.4950	-7.4078
3	SOAP OPERA	-13.5327	-12.7711	-4.9383
4	FAMILY DRAMA	-3.2452	-1.2957	6.5681
5	MEDICAL DRAMA	-14.8423	.6425	-.3879
6	CRIME DRAMA	-13.1453	14.2737	-1.4926
7	FAT ALBERT	25.5007	-6.9975	-4.9282
8	ALL IN FAMILY	15.1644	3.0801	-9.8646
9	GENERAL HOSPITAL	-14.0023	-14.1775	-6.6138
10	THE WALTONS	1.1175	-12.3674	15.4075
11	MEDICAL CENTER	-12.3077	-.1365	1.4212
12	STREETS OF S.F.	-9.2401	15.6230	.9446
13	ME	12.3980	22.1676	5.1688

Appendix B_8

STATISTICS FOR TREATMENT FM50 SET NUMBER 1

COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
1	41.143	25.877	669.617	.597	2.745	91	0.0	100.0	100.0
1	62.217	40.239	1616.757	2.729	15.693	92	0.0	300.0	300.0
2	35.500	33.708	1135.228	3.126	18.911	92	0.0	250.0	250.0
1	50.163	29.442	866.810	1.946	9.756	92	0.0	200.0	200.0
2	39.878	30.699	942.441	2.333	11.178	9[illegible]	0.0	200.0	200.0
3	26.630	29.925	895.516	1.667	5.717	92	0.0	130.0	130.0
1	69.000	34.722	1205.630	2.225	10.628	92	0.0	250.0	250.0
2	49.066	33.843	1145.380	2.781	14.117	91	2.0	230.0	228.0
3	23.407	29.314	859.318	2.283	9.155	91	0.0	150.0	150.0
4	27.604	21.171	448.217	.391	2.261	91	0.0	91.0	91.0
1	68.648	41.851	1751.547	2.019	9.303	91	0.0	275.0	275.0
2	49.451	34.728	1234.621	2.565	12.715	91	0.0	230.0	230.0
3	35.813	35.159	1235.130	1.529	5.007	91	0.0	150.0	150.0
4	32.944	21.715	471.541	.517	3.190	90	0.0	100.0	100.0
5	25.543	20.557	422.574	.917	3.607	92	0.0	100.0	100.0
1	5.163	14.171	200.811	4.639	27.623	85	0.0	[illegible]	[illegible]
2	41.437	32.400	1049.763	1.815	7.669	87	0.0	175.0	175.0
3	61.107	42.163	1777.691	2.532	14.349	84	0.0	300.0	300.0
4	57.424	30.765	946.456	1.187	6.607	85	3.0	200.0	197.0
5	68.977	31.263	977.372	1.291	5.399	85	0.0	250.0	[illegible]
6	78.266	35.904	1289.132	2.039	9.364	79	20.0	250.0	230.0
1	45.022	28.875	833.755	.915	3.671	90	0.0	150.0	150.0
2	4.217	10.446	109.127	3.172	13.016	92	0.0	50.0	50.0
3	45.978	34.079	1161.393	1.954	9.565	89	0.0	220.0	220.0
4	45.213	30.118	907.067	1.193	5.452	89	0.0	175.0	175.0
5	58.549	29.685	881.215	1.319	7.833	91	0.0	200.0	200.0
6	58.843	29.353	861.571	1.726	8.456	83	0.0	200.0	200.0
7	42.229	33.650	1132.851	1.555	7.192	83	0.0	[illegible]	[illegible]
1	63.172	38.468	1479.798	3.001	18.074	87	0.0	300.0	300.0
2	42.341	36.287	1316.747	3.118	16.776	88	0.0	250.0	250.0
3	5.644	15.371	235.252	3.756	19.331	87	0.0	100.0	100.0
4	32.932	26.894	723.260	1.166	4.131	83	0.0	125.0	125.0
5	16.714	27.559	759.479	2.990	13.438	91	0.0	150.0	150.0
6	45.337	29.427	865.944	1.445	5.570	85	0.0	150.0	150.0
7	67.193	34.783	1209.866	1.875	10.535	83	5.0	250.0	245.0
8	56.092	28.642	820.359	.571	3.370	87	0.0	150.0	150.0
1	39.186	31.195	973.151	2.309	10.903	85	[illegible]	[illegible]	[illegible]
2	40.218	32.564	1060.447	2.076	9.240	87	0.0	200.0	200.0
3	27.553	28.252	798.177	2.880	17.237	55	0.0	200.0	200.0
4	10.988	22.043	485.877	2.637	9.670	87	0.0	100.0	100.0
5	42.759	31.090	966.597	1.349	5.628	87	0.0	175.0	175.0
6	57.198	28.354	803.926	.861	4.106	85	0.0	150.0	150.0
7	58.000	35.340	1248.927	1.590	7.130	82	0.0	200.0	200.0
8	53.402	35.065	1229.520	2.199	12.551	85	0.0	[illegible]	[illegible]
9	45.083	27.507	755.648	.975	4.281	84	0.0	150.0	150.0
1	66.811	34.432	1185.553	2.327	11.514	90	0.0	250.0	250.0
2	50.244	33.701	1135.740	2.713	13.955	90	0.0	230.0	230.0
3	23.489	26.958	726.446	2.735	13.522	88	0.0	175.0	175.0
4	26.322	22.130	489.730	1.257	4.928	90	0.0	100.0	100.0
5	2.581	10.229	104.631	5.421	33.894	93	0.0	75.0	75.0
6	37.943	23.664	559.985	.886	3.524	88	0.0	100.0	100.0
7	69.494	30.541	932.756	1.485	8.671	83	0.0	220.0	220.0
8	56.535	29.938	896.295	1.497	7.714	85	0.0	200.0	200.0
9	21.115	25.539	652.217	1.753	6.215	87	0.0	125.0	125.0
10	45.471	27.966	782.084	1.020	4.323	85	0.0	150.0	150.0
1	70.262	40.634	1650.341	1.947	8.092	89	0.0	250.0	250.0
2	51.910	35.376	1251.430	2.595	13.178	89	0.0	240.0	240.0
3	45.193	31.813	1012.065	1.714	7.423	88	0.0	190.0	190.0
4	36.000	25.878	669.670	.737	2.933	91	0.0	100.0	100.0
5	35.207	23.524	553.382	1.032	4.045	87	0.0	100.0	100.0
6	3.056	9.261	85.764	3.874	19.663	90	0.0	50.0	60.0
7	68.675	33.140	1098.244	2.060	12.030	83	0.0	250.0	250.0
8	57.784	29.442	866.828	1.410	7.552	88	2.0	200.0	19[illegible]
9	51.791	30.128	907.724	1.738	8.431	85	0.0	200.0	200.0
10	53.952	29.730	883.118	1.792	9.326	83	0.0	200.0	200.0
11	37.667	31.244	975.198	2.440	11.577	54	0.0	200.0	200.0
1	52.023	50.819	2581.885	2.512	10.923	87	0.0	300.0	300.0
2	24.814	39.100	1528.779	4.393	29.292	85	0.0	300.0	300.0
3	69.975	53.703	2883.999	1.728	5.934	81	0.0	275.0	275.0
4	43.267	36.295	1317.329	1.403	5.735	90	0.0	230.0	230.0
5	55.322	45.576	2075.655	2.274	11.435	87	0.0	300.0	300.0
6	49.322	48.746	2376.130	2.631	8.134	93	0.0	250.0	250.0
7	51.675	47.406	2247.352	1.758	5.394	83	0.0	220.0	220.0
8	33.372	50.790	2579.629	3.779	19.112	85	0.0	300.0	300.0
9	71.940	55.458	3075.731	3.004	15.928	83	0.0	400.0	400.0
10	59.190	51.315	2633.242	3.662	34.392	84	[illegible]	435.0	435.0
11	51.739	57.751	3335.229	3.658	[illegible]	58	[illegible]	[illegible]	[illegible]
12	42.678	45.730	2091.555	3.542	[illegible]	87	[illegible]	[illegible]	[illegible]

[illegible] DEFINITIONS FOR CELL 87.6025

GALILEO - ASPECTS

CONCEPTS		1	2	3
1	CHILDRENS COMEDY	38.5589	-12.2073	-14.7427
2	ADULT SIT-COMEDY	[illegible]	[illegible]	[illegible]
3	SOAP OPERA	-17.7159	-20.5871	9.4734
4	FAMILY DRAMA	-8.1851	-2.9645	-11.9913
5	MEDICAL DRAMA	-26.7737	-1.7260	.2245
6	CRIME DRAMA	[illegible]	[illegible]	[illegible]
7	FAT ALBERT	42.4043	-5.3424	-1.3178
8	ALL IN FAMILY	23.4830	7.1090	21.8314
9	GENERAL HOSPITAL	-21.3509	-21.7338	11.7303
10	THE WALTONS	[illegible]	[illegible]	[illegible]
11	MEDICAL CENTER	-23.7993	-1.6906	1.5534
12	STREETS OF S.F.	-18.8326	24.0921	-9.4692
13	ME	19.1538	35.1077	-1.4114

END PROGRAM GALILEO

END TREATMENT FM50

Appendix B_9

STATISTICS FOR TREATMENT FM100 SET NUMBER 1

ROW	COL	MEAN	STAN. DEV.	VARIANCE	SKEWNESS	KURTOSIS	COUNT	MIN. VAL	MAX. VAL	RANGE
2	1	88.010	84.176	7085.635	3.115	14.569	96	0.0	500.0	500.0
2	2	116.394	85.392	7291.788	2.015	8.168	94	0.0	450.0	450.0
3	1	60.277	43.176	1864.179	.990	4.567	94	0.0	200.0	200.0
3	2	114.043	95.934	9203.424	2.604	10.214	94	10.0	500.0	490.0
4	1	70.916	63.392	4018.519	2.606	11.977	95	0.0	400.0	400.0
4	2	37.072	48.504	2352.672	2.570	12.365	93	0.0	300.0	300.0
5	1	131.138	96.125	9240.077	2.417	9.145	94	10.0	500.0	490.0
5	2	82.253	61.122	3735.859	2.282	10.894	91	0.0	400.0	400.0
5	3	36.613	52.301	2735.442	3.003	14.545	93	0.0	300.0	300.0
5	4	50.958	39.592	1567.525	.846	1.306	95	0.0	100.0	100.0
6	1	129.872	98.975	9795.988	2.312	8.308	94	0.0	500.0	500.0
6	2	84.489	59.864	3583.641	2.025	8.712	92	0.0	350.0	350.0
6	3	60.404	70.980	5038.177	3.416	18.850	94	0.0	500.0	500.0
6	4	62.250	62.410	3950.719	3.249	17.073	95	0.0	400.0	400.0
6	5	51.161	37.518	1407.619	.203	1.904	93	0.0	150.0	150.0
7	1	7.978	24.342	592.539	4.094	19.985	99	0.0	150.0	150.0
7	2	79.830	70.897	5026.391	3.438	19.190	88	0.0	500.0	500.0
7	3	121.133	84.789	7189.565	2.606	11.318	90	0.0	500.0	500.0
7	4	107.580	87.736	7697.607	2.627	11.329	88	0.0	500.0	500.0
7	5	126.966	89.029	7926.337	2.506	9.845	89	0.0	500.0	500.0
7	6	127.000	81.545	6649.511	2.882	12.641	82	15.0	500.0	485.0
8	1	84.892	82.648	6830.673	3.304	15.872	96	0.0	500.0	500.0
8	2	13.684	54.561	2976.953	7.606	56.661	95	0.0	500.0	500.0
8	3	53.957	67.284	4527.105	3.304	18.497	94	0.0	500.0	500.0
8	4	78.511	74.219	5508.423	3.863	15.638	94	0.0	500.0	500.0
8	5	101.897	70.712	5000.231	3.341	18.814	97	0.0	500.0	500.0
8	6	113.291	74.175	5501.994	2.274	13.493	96	0.0	500.0	500.0
8	7	82.034	76.403	5837.459	2.901	14.472	87	0.0	500.0	500.0
9	1	127.433	98.372	9677.090	2.526	9.201	90	10.0	500.0	490.0
9	2	78.891	52.674	2774.583	1.847	8.632	88	0.0	300.0	300.0
9	3	12.538	28.047	786.535	2.197	6.409	93	0.0	100.0	100.0
9	4	52.764	48.327	2335.451	1.156	4.175	89	0.0	200.0	200.0
9	5	28.630	47.002	2209.211	2.967	14.886	92	0.0	300.0	300.0
9	6	65.429	71.129	5059.311	2.679	14.357	91	0.0	500.0	500.0
9	7	124.553	99.075	9815.247	2.394	8.778	85	0.0	500.0	500.0
9	8	96.244	53.193	2829.940	1.059	4.546	90	0.0	300.0	300.0
10	1	86.244	83.886	7036.939	3.064	13.269	90	0.0	500.0	500.0
10	2	79.816	75.258	5663.878	3.183	15.797	87	0.0	500.0	500.0
10	3	54.703	54.893	3013.195	2.156	9.793	91	0.0	300.0	300.0
10	4	20.322	39.155	1535.458	2.282	8.102	90	0.0	200.0	200.0
10	5	81.185	62.089	3855.020	3.592	23.457	92	0.0	500.0	500.0
10	6	102.956	68.288	4665.119	2.576	14.239	91	0.0	500.0	500.0
10	7	108.726	94.877	9001.580	2.797	11.682	84	0.0	500.0	500.0
10	8	92.337	67.557	4563.886	3.586	20.170	89	10.0	500.0	490.0
10	9	86.182	75.120	5642.990	2.934	14.961	88	0.0	500.0	500.0
11	1	130.402	98.627	9727.284	2.871	11.773	92	25.0	600.0	575.0
11	2	85.933	60.291	3634.952	2.440	11.528	89	0.0	400.0	400.0
11	3	43.355	49.611	2461.295	2.561	12.082	90	0.0	300.0	300.0
11	4	48.763	43.053	1853.557	.907	3.582	53	0.0	200.0	200.0
11	5	6.828	20.256	410.449	3.659	18.819	46	0.0	100.0	100.0
11	6	70.691	62.614	3920.532	3.585	24.260	94	0.0	500.0	500.0
11	7	129.459	87.841	7716.013	2.565	9.838	85	0.0	500.0	500.0
11	8	101.311	67.367	4537.992	3.021	16.053	90	0.0	500.0	500.0
11	9	40.217	49.947	2494.546	1.803	7.179	92	0.0	250.0	250.0
11	10	79.699	42.378	1795.903	1.173	4.992	90	0.0	200.0	200.0
12	1	120.611	88.925	7907.477	2.435	9.734	90	10.0	500.0	490.0
12	2	81.750	55.441	3073.710	2.119	10.143	88	5.0	350.0	345.0
12	3	74.943	54.325	2951.125	3.792	22.376	90	0.0	350.0	350.0
12	4	60.299	57.756	3335.715	2.599	14.693	91	0.0	400.0	400.0
12	5	65.427	48.009	2304.929	1.806	8.526	93	0.0	300.0	300.0
12	6	10.118	25.375	643.859	2.586	8.303	93	0.0	150.0	150.0
12	7	130.576	93.645	8769.[illegible]	2.[illegible]	7.[illegible]	85	0.0	500.0	500.0
12	8	104.371	85.617	7330.253	2.833	7.0047	89	15.0	500.0	485.0
12	9	90.247	75.903	5761.377	2.993	14.5662	89	0.0	500.0	500.0
12	10	96.056	63.353	4014.705	1.643	6.1355	89	10.0	300.0	290.0
13	1	57.528	54.[illegible]	[illegible]	1.573	7.[illegible]	89	0.0	300.0	300.0
13	2	82.685	[illegible]	[illegible]	3.195	16.979	89	0.0	500.0	500.0
13	3	48.570	[illegible]	[illegible]	2.861	20.334	91	0.0	500.0	500.0
13	4	110.625	[illegible]	[illegible]	2.969	13.441	88	0.0	500.0	500.0
13	5	51.[illegible]	[illegible]	[illegible]	2.[illegible]	[illegible]	[illegible]	0.0	500.0	500.0
13	6	86.775	[illegible]	[illegible]	2.[illegible]	[illegible]	[illegible]	0.0	500.0	500.0
13	7	77.925	[illegible]	[illegible]	2.[illegible]	12.[illegible]	[illegible]	0.0	500.0	500.0
13	8	91.859	[illegible]	[illegible]	3.[illegible]	21.[illegible]	[illegible]	0.0	500.0	500.0
13	9	54.894	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	1	109.636	[illegible]	[illegible]	3.791	[illegible]	2	[illegible]	[illegible]	[illegible]
14	10	[illegible]	[illegible]	[illegible]	2.562	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
14	[illegible]	[illegible]	[illegible]	[illegible]	2.[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible] OBSERVATIONS PER CELL [illegible]

GALILEO FACTORS

1	CHILDRENS COMEDY	80.1871	-10.9210
2	ADULT SIT COMEDY	22.0782	7.0006
3	SOAP OPERA	-34.4516	-28.1649
4	FAMILY DRAMA	20.4975	-6.9552
5	MEDICAL DRAMA	-46.0935	-2.0457
6	CRIME DRAMA	-37.5616	42.0221
7	FAT ALBERT	79.5009	-7.8554
8	HILL IN FAMILY	39.5920	4.5729
9	GENERAL HOSPITAL	-38.6795	-30.6464
10	THE WALTONS	.9023	-43.5612
11	MEDICAL CENTER	-45.3568	-9.3347
12	STREETS OF S.F.	-30.9035	-40.4705
13	ME	31.0826	46.4464

CONCEPTS

1	CHILDRENS COMEDY	-29.6037	
2	ADULT SIT COMEDY	30.8241	
3	SOAP OPERA	3.7747	
4	FAMILY DRAMA	-4.7706	
5	MEDICAL DRAMA	3.6291	
6	CRIME DRAMA	-20.5013	
7	FAT ALBERT	-13.0305	
8	HILL IN FAMILY	44.5940	
9	GENERAL HOSPITAL	17.4728	
10	THE WALTONS	-25.9919	
11	MEDICAL CENTER	2.4347	
12	STREETS OF S.F.	-23.7575	
13	ME	14.9582	

END-SONGFAM-GALILEO

END TREATMENT FM100

APPENDIX I *
SAMPLE DEMOGRAPHICS

TREATMENTS	YEAR				AGE			SEX		RACE		
	Fr.	Soph.	Jr.	Sr.	18-25	26-35	36+	Male	Female	Black	White	Other
Beautiful - Rock	4	8	17	37	55	11	0	33	33	9	50	6
Top 40 - Oldies	0	13	15	33	46	13	4	27	35	8	46	1
Red - White	3	14	22	26	44	16	2	35	30	13	36	1
None	3	5	19	35	46	13	4	37	24	12	40	2

TREATMENTS	AVERAGE FAMILY INCOME/YEAR					
	0-4,999	4,000-7,999	8,000-9,999	10,000-14,999	15,000-20,000	20,000+
Beautiful - Rock	6	9	5	15	8	18
Top 40 - Oldies	7	3	3	8	14	21
Red - White	5	7	2	21	12	14
None	9	7	2	14	10	14

TREATMENTS	AVE. HRS. OF RADIO LISTENING/DAY				
	1.9	2-2.9	3-3.9	4-4.9	5+
Beautiful - Rock	24	15	12	4	10
Top 40 - Oldies	21	15	9	8	9
Red - White	14	22	6	3	11
None	24	13	10	4	8

* Cross tabs of subjects relative to treatments and demographic characteristics.