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AUTHOR Eberly, Charles G.  
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ABSTRACT

A re-analysis of the Situational Attitudes Scale (SAS) was conducted to investigate its generality, validity and reliability and to suggest a more conservative method of analyzing the data. Three forms of the SAS were developed under the name Situational Attitude Inventory. Forms A and B corresponded to the originals; they tested attitudes toward whites and blacks, respectively, in varying social situations. Form C was developed to test the validity of the social situations for differentiation among alternative referents, which included welfare, age, ethnicity, and physical characteristics. The SAS was administered to a random sample of new freshman and transfer students at Michigan State University in September, 1970. Data were analyzed using factor analysis and multiple t-tests of individual items and multivariate analysis of variance (MANOVA) of scales constructed by the method of reciprocal averages (RAVE). Factor analysis demonstrated independence of SAS situations. Multiple t-test data showed that white 1970 new students had more negative attitudes toward blacks than whites. Profile analysis revealed that students reacted to the scales differentially, depending on the form of the instrument completed; aspects of the social situations affected their responses as well as the particular descriptive characteristics assigned to the actor(s). There is a "saving" of at least 89 statistical tests using this method of analysis over the previous one, as well as having a more widely understood estimate of reliability. (RM)

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## AN ALTERNATIVE ANALYSIS FOR THE SITUATIONAL ATTITUDES SCALE

By

Charles G. Eberly  
Office of Evaluation Services

### INTRODUCTION

In their original paper on the Situational Attitude Scale (SAS) Sedlacek and Brooks (1969) said additional studies of the instrument would be needed. This paper is an extension of their work at another University. It adds new independent variables to observe the effect of other referents for the set of social situations, and it reviews the validity and reliability of the instrument.

In the development of a new scale it is important to know whether the constructs purportedly measured by it are primarily of a local or of a more general nature. It is essential to know whether the instrument is valid and reliable. The first objective of this re-analysis of the SAS was to assist in learning about the generality of the SAS. The second objective was to consider its validity and reliability, and the third objective was to suggest a more conservative method of analyzing the data gathered by the SAS.

#### Generality

Administration of an instrument in several different geographical areas with similar results would suggest that what is measured by the instrument may be of a general rather than a local nature. Generality is especially important to determine in the development of a new instrument, especially in one purporting to measure racial attitudes.

#### Validity

The argument presented for the validity of the SAS (Sedlacek and Brooks, 1969) was that since the insertion of the word "black" was the only difference between the two forms of the instrument, any differences found between responses to the two forms "...must be attributed to the word 'black'" (1969, p. 5). Carrying this argument further, the use of a third instrument with alternative referents in place of the word "black" should provide additional evidence of validity if responses across the three instruments were differential. Some evidence that the referent used in the social situations of the SAS does affect responses has been reported (Chaples, Sedlacek and Brooks, 1971).

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<sup>1</sup>Revision of a paper given at the April, 1972 Convention of the American College Personnel Association, Chicago, Illinois.

### Reliability

Since people will report only what they wish to report on a paper-and-pencil instrument, it is difficult to estimate both validity and reliability. The most readily available means of estimating the reliability of an attitude instrument is to look at the consistency with which responses are made to it.

Sedlacek and Brooks (1969) used communalities from a principal components factor analysis as an estimate of the homogeneity of content reliability for each item. However, their estimates were based on a factor analysis of responses from less than 200 subjects for each form of the instrument. Lange (1969) has presented data to show that a sample size of approximately 400 is necessary "...to be certain that at the .05 level the resultant [unrotated or rotated] loadings are not more than  $\pm 0.16$  away from the population values..." (pp. 41-42). Sample factor patterns from samples substantially smaller than 400 subjects may not consistently resemble the factor pattern of the population from which the sample was drawn. In the case of the SAS, this suggests that the factors and the item communalities, as reported by Sedlacek and Brooks, may be unstable.

Additionally, there is some doubt that factors identified by Sedlacek and Brooks are really the major factors of interest. They identified factors by underlining the ten highest loadings within the list of item loadings for each factor. Such an approach to identification makes it difficult not to find "...a factor representing each of the ten situations..." (1969, p. 8). What is usually done to identify factors is to underscore only the highest loading for an item across the row of factors (Edwards, 1970). When this procedure was applied to the Sedlacek and Brooks data (1969, Table 5), the first factor for Form B had 30 of 100 items loading highest on it of the 18 listed factors. Such a result would not suggest that factors for the black form of the SAS "further emphasize the importance and independence of each situation" (1969, p. 7). (See Table 1)

Although factor analysis data for Forms A and B separately were reported (Sedlacek and Brooks, 1969, Tables 4 and 5), discussion in the text of the report centered only on a factor analysis of data for Forms A and B combined. While this does provide a reasonably large number of subjects upon which to perform a factor analysis, the entire process seems somewhat inappropriate since responses for both black and white situations were averaged together to perform the analysis. If one instrument is indeed to assess responses to white situations and the other instrument to assess responses to black situations, then the two instruments are designed to measure different variables. Performing an analysis on the combination of two different variables does not seem statistically advisable.

Finally, defense of the reliability of the SAS based on factor analysis communalities alone does not seem satisfactory. Such estimates of variance in the items accounted for by the factor scores will have little clear meaning for most individuals using the instrument. Test developers have been encouraged to use easily interpretable statistics to characterize their instruments (APA-AERA-NCME Committee on Test Standards, 1966). Using a scale approach to scoring the situations of the SAS, a more interpretable estimate of internal consistency reliability can be obtained with application of the Hoyt analysis of variance method (Hoyt, 1967; Wright and Porter, 1968; Torgerson, 1962). Such a method yields an internal consistency reliability coefficient which has meaning similar to that of a Kuder-Richardson reliability coefficient for a standardized test.

#### Data Analysis

As their approach to analysis of the SAS, Sedlacek and Brooks have performed two-tailed multiple t-tests at the .05 level on the paired means of the 100 items in the two forms. They recognize that there is considerable possibility of a Type I error occurring, that is, falsely rejecting the hypothesis of no difference, but justify their procedure on two points: that risking a Type I error in this case is more desirable than risking Type II error, that is, not rejecting a hypothesis of no difference when indeed there is a difference, since the objective of the study was to find "...potential items of difference..." (p. 6) and that in any case, according to Sakoda, Cohen and Beall (1954), "...one would expect only nine tests to be significant at .05 due to chance out of 100 tests made." (1969, p. 6).

The first justification appears the more plausible. The second is interesting since the reference specifies the number of tests due to chance, given the number of tests made. In more recent references, there is no such specification. Rather these references assert that the number of tests significant due to chance cannot be precisely specified (Hays, 1963; Tatsuoka, 1969; Morrison, 1967; Johnson and Jones, 1972). Whether or not the number of tests significant by chance can be precisely specified, there are no means of distinguishing those significant by chance from those truly significant, using the multiple t-test method.

There are means of analysis which avoid the problem of multiple tests on data and instead perform an overall F-test which, if significant, can be partitioned, using post hoc tests to determine where significant differences lie. One such method is Profile Analysis (Greenhouse and Geisser, 1959; Morrison, 1967). One tests the possibility of differences in the overall profile of mean responses, and if differences are indicated, post hoc procedures are used to determine where differences occur between groups, scales, or scales and groups. Three questions can be solved using such a method (Morrison, 1967):

1. Are the population mean profiles similar, in the sense that the line segments of adjacent tests are parallel?
2. If the ...population profiles are indeed parallel, are they also at the same level?
3. Again assuming parallelism, are the population means of the tests different?

The difference between the two approaches to analysis of the SAS should be clear. Using multiple t-tests, 100 significance tests are performed with the probability of a minimum of nine significant differences significant only by chance. Using profile analysis, one statistical test is performed with post hocs (here Scheffe tests) if indicated. Type I error is clearly specified, and differences found are far more likely to be real differences.

#### PROCEDURE

The problems discussed in the Introduction were taken into consideration in the collection and analysis of the MSU SAS data. First, samples of sufficient size were collected so that factor analyses performed had parameters which met Lange's (1969) criteria for sample factor patterns to reflect population factor patterns consistently. Each set of ten bi-polar adjectives describing a social situation were scaled according to the method of reciprocal averages (RAVE), and an internal consistency reliability estimate was obtained (Wright and Porter, 1968). The resulting set of ten scale scores for each form was then analyzed using a one-way, repeated measures multiple analysis of variance (Finn, 1969), and Scheffe post hoc contrasts were performed to determine where specific differences among population means occurred. A parallel analysis using the original multiple t-test method was also performed in order to compare results with the analysis suggested in this paper.

#### Data Collection

##### Instrumentation

Three forms of the SAS were developed under the name, Situational Attitude Inventory, (Appendix A). Each Form contained 12 items in common asking information such as race, sex, expected major, and other background data, and 100 SAS items. SAS Forms A and B were reproduced as Sedlacek and Brooks developed them. SAS Form C was developed to test the validity of the social situations for differentiation among alternative referents. Referent categories included welfare, age, ethnicity, and physical characteristics. Each form was prefaced by a cautionary statement saying that completion of all items was optional, and that there was no identification of individuals in any way.



### Administration

The SAS was administered to a random sample of 1634 new freshman and transfer students in September, 1970, during the General Education Testing held at the beginning of the Fall Term. Questionnaires for students marking a racial identity other than white were not analyzed. Additionally, 63 were not analyzed since visual observation of the answer sheet indicated an obvious response set which strongly suggested the students did not thoughtfully answer the items, but rather withheld their responses or wished to leave the testing session early. There were 109 other students' questionnaires not analyzed because they left more than ten items of the SAS blank. Following Sedlacek and Brooks (1969), the median scale value (1 to 5; 3 = median) was assigned to missing item responses, providing that ten or less items were left blank by the student. The final usable N for the analyses was 1306: 456 for Form A, 410 for Form B, and 440 for Form C.

Staff of the Office of Evaluation Services, or faculty wives experienced in testing, administered the SAS. Questionnaires were distributed randomly in each testing room using the SAS. Students did not know that different forms of the instrument existed. Proctors answered students' questions at their seats with a minimum of commotion. Students were allowed as much time as they wished to complete the instrument within the time period of two hours. Three instruments out of a set of seven were administered at each testing room, such that all instruments in the 1970 General Education battery had an approximately equal number of students reacting to them.

### Subjects

Analysis of the 12 items preceding the SAS indicated the students taking the three forms of the instrument were very similar. For each form, slightly more than half were female. Twenty per cent of the sample were transfer students, and eighty per cent were new freshmen. About 48 per cent expected to terminate their formal education with the BS/BA, and the same percentage expected to continue for Graduate or Professional degrees.

### Data Analysis

Data were analyzed using factor analysis and multiple t-tests of individual items, and multivariate analysis of variance (MANOVA) of scales constructed by the method of reciprocal averages (RAVE). The MANOVA applied was a multivariate, repeated measures design (Morrison, 1967). Scheffe post hoc tests (.05 level) were scheduled for computation if results of the Profile Analysis indicated their use was appropriate.

### Scale Construction

Data obtained from the SAS were of a qualitative nature. The RAVE is a means of quantifying data so scales constructed from individual items have item responses weighted to maximize the internal consistency of the resulting scale (Wright and Porter, 1968). First an a priori set of item response weights is assigned. After computation, the final weights yield the maximum possible internal consistency as measured by the Hoyt analysis of variance. Final assigned weights are very informative. An item not relating to the scale will receive equal weights for all responses. Items with high discriminating ability will receive weights with the largest range of response values.

Names and definitions can be assigned each scale, with an interpretation given for a high and low score. A priori weights were attached to each item key based on the directionality of Sedlacek and Brooks bi-polar adjectives (1969, Table 1), such that item responses were scored positively (5, 4, 3, 2, 1) or negatively (1, 2, 3, 4, 5). As weighted, a high score on all scales means the individual who responded was not threatened by the situation being evaluated (he was calm, happy, pleased, relaxed, etc.). Conversely, a low score on a scale meant that he was threatened (was tensed, angered, sad, unsafe, etc.). Scores could range on the scales from 10 to 50. A priori weights provided optimum reliability for most scales on all forms of the SAS (Table 8). Since many users of the SAS would probably not have access to a scale weighting program of the sort described, only scales with a priori weights were used in the MANOVA analysis. Reliabilities of a priori weighted scales ranged from a low of .44 to a high of .86, with 18 of 30 scales at .80 or above (Table 8).

## RESULTS

### Factor Analysis

Factor analyses were performed using parameters following the example of Sedlacek and Brooks (1969, p. 5):

Principal components factor analyses using squared multiple correlations as communality estimates were conducted. All factors with eigenvalues greater than 1 were then rotated to a varimax solution. Separate analyses were done on Form A, Form B, and A and B combined.

### Results Compared

As stated above, factor structures determined by Edwards' procedure (1971) for the University of Maryland data did not show clear evidence of independence of social situations



for all forms of the SAS (Table 1). Factor structures of all SAS forms as demonstrated in the MSU data do appear to show independence of social situations in the scales (Tables 2, 3, 4, 5, and 6).

In both sets of data, some factors appear to be made solely of particular bi-polar adjectives which may be unrelated to responses to social situations. Examples are items 16 (hope-hopelessness) and 80 (hopeful-hopeless), (Table 2, factors XIII, XVI, XIX, and XX); items 23 and 39 (excited-unexcited), (Table 2, factors XIII, XIV, and XXIII); items 33, 34, 59, 60, and 63 (superior-inferior, smarter-dumber), (Table 1, factors IX and XV). In at least one case, bi-polar adjectives used within a situation appeared redundant. Items 71, 75, and 79 (surprising-not surprising, understandable-baffling, expected-unexpected) factored together on all Maryland and Michigan analyses.

Viewing factor structure alone in the first ten factors, the MSU data seldom have more than one or two items from one situation falling on a factor principally loaded by a majority of items from a second situation (Table 2). This result did not occur in the Maryland data (Table 1).

#### Communalities

Communalities for the MSU data were slightly different from those originally reported. Sedlacek and Brooks reported median communalities for Forms A and B respectively of .64 and .65 (1969, p. 8). Median communalities for the MSU data were: Form A, .55; Form B, .68; and Form C, .65.

#### Multiple t-tests

Multiple t-tests were performed on Forms A and B only, to conform with the original data analysis. The analysis showed that 58 of 100 items revealed significant differences for the MSU data (Table 7). This compared to 55 of 100 items significant in the Sedlacek and Brooks analysis (1969, Table 2). When significance tables were compared, 48 items were significant at both institutions (Table 9).

#### Profile Analysis

The MANOVA performed on the 10 FAVE scales had an overall  $F$  test statistic significant beyond .00001. Thus, the answer to the first question addressed by profile analysis was that population mean profiles for the three groups were indeed not similar. Scheffe' contrasts were performed to determine where differences lay (Table 10).

## DISCUSSION AND CONCLUSIONS

### Factor Analyses

From the results of the factor analyses discussed above it would appear that Lange's caution (1969) regarding the number of subjects required for stable sample factor patterns was well-taken. Upon review, Sedlacek and Brooks's original factor patterns did not appear to be stable or to produce clear evidence that situations were indeed independent of each other (Table 1). The larger-sample data collected at Michigan State University did show evidence of stable factors and demonstrate independence of SAS situations.

Since several bi-polar adjective pairs did load apart from situations on separate factors, it would seem they could be eliminated and the instrument shortened without loss of essential information.

### RAVE Scales

The RAVE scales as developed provide a more satisfactory estimate of instrument reliability (Table 8) than the use of communalities alone. Not only do they provide a more widely understood estimate of reliability, but their use significantly reduces the amount of data which must be assimilated by the user in interpreting his results.

### Multiple t-tests

The multiple t-test data showed that white 1970 new students at Michigan State University had more negative attitudes toward blacks than whites. There were significant differences between at least two sets of item means for every Situation. If exceptions were present, they appeared to be Situations II (Man raped woman) and IX (Campus demonstration). Regardless of race, these students were sympathetic to the victim and negative toward demonstrations. Students appeared most negative toward Situations I (new family next door), V (friend becomes engaged), and VI (stopped by policeman). Since social distance is probably least in the first two situations, these results were not surprising. In contrast to the t-test results of Sedlacek and Brooks (1969, 1971) for white students, these students appeared more negative toward the prospect of a black policeman stopping them than a white one. Otherwise, the pattern of results for Michigan State University freshman was similar to that of the University of Maryland students.

What seems clear from these data is that black people are not viewed with equanimity. It was difficult to interpret these data, however, since there were so many results to keep in balance. One had not only to consider the means and standard deviations of ten pairs of bi-polar adjectives in interpreting the t-tests results, but also the directionality of the

ten pairs of alternatives for each of ten situations.

Now consider an alternative interpretation for the same data where 11 statistical tests replace the 100 used above.

### Profile Analysis

The profile analysis demonstrated that population mean profiles for the three SAS instruments were not parallel. Interpreted in terms of the instrument and the students, there was an interaction between the form of the SAS completed and mean responses to individual situations posited in the instrument. Students reacted to the scales differentially, depending upon the form of the instrument completed. Apparently, for these MSU students, aspects of the selected social situations themselves affected their responses as well as the particular descriptive characteristic assigned to the actor(s) in the social situations.

An analysis of the least square estimates of effects for the black and white forms (Table 10) showed that differences lay in mean responses to six scales: Situations I, III, IV, V, VI, and VIII. These results suggest that a model student entering MSU in 1970 might say something like the following:

"I can accept a black as a policeman, a magazine salesman, or as a member of my social group [at school?], and it doesn't especially bother me to see blacks loitering on a street corner [which corner?], but I wouldn't want a black family to live in my neighborhood or have a black become engaged to one of my friends"

Four situations did not appear to produce differences in racial perception according to these student's responses. These students saw no difference in traveling on a bus with blacks or whites, they did not like demonstrations regardless of the actors, and they did not appear to differentiate their friends by race. As for the rapist, his race did not alter their general sympathy for the victim.

As stated by Sedlacek and Brooks (1971), knowledge of students' racial perceptions, by administrators and students, should help to assist in promoting the growth of tolerance.

Analyses of the white form with the mixed form, or the black form with the mixed form, are not reported here since there were insufficient degrees of freedom to insure orthogonality of the contrasts (Hays, 1963). Suffice it to say the profile analysis does show respondents to this instrument react differentially to both descriptor and situation.

### Conclusion

It is left to the reader which analysis is most satisfactory as a means of interpreting the Situational Attitude Scale. To the author, the conclusion is obvious. There is a

"saving" of a minimum of 89 statistical tests using the proposed method of analysis over the one previously employed, as well as a more universally understood estimate of reliability. While there is still a problem with Type I error using profile analysis (the reason the alpha level was set at .01 for the ten contrasts), the reduction in the probability of that error is considerable. Additionally, there is lesser risk of Type II error, so one can be more confident that differences found are "true" differences.

While the SAS could be shortened without loss of essential information, its reliability is clearly acceptable for most scales formed by means of reciprocal averages, and its ability to differentiate racial perceptions, an aspect of validity, appears to be supported by these data. The generality of the instrument was also supported. As the profile analysis indicated, racial perception is a complex phenomenon affected by the social situation in which it is encountered.

## REFERENCES

- APA-AERA-NCME Committee on Test Standards, 1966. Standards for Educational and Psychological Tests and Manuals. Washington, D. C.: American Psychological Association.
- Chaples, Ernest A., Sedlacek, William D., and Brooks, Glenwood C., Jr. "Measuring Prejudicial Attitudes In A Situational Context: A Report On A Danish Experiment." Cultural Study Center Research Report #9-71, College Park: University of Maryland.
- Edwards, Allen L., 1970. The Measurement of Personality Traits By Scales And Inventories. New York: Holt, Rinehart, and Winston, Inc.
- Finn, Jeremy D., 1968. "Multivariate-Version 4," State University of New York at Buffalo: Department of Educational Psychology. (Modified for MSU Computer Systems by David J. Wright, Office of Research Consultation, March, 1970).
- Greenhouse, Samuel W., and Geisser, Seymour, 1959. "On Methods In The Analysis of Profile Data," Psychometrika, 24, 95-112.
- Hays, William L., 1963. Statistics For Psychologists. New York: Holt, Rinehart and Winston.
- Hoyt, Cyril J., 1967. "Test Reliability Estimated By Analysis Of Variance," In William A. Mehrens and Robert L. Ebel (Eds.), Principles of Educational and Psychological Measurement. Chicago: Rand McNally.
- Johnson, Richard H., and Jones, Lawrence, 1972. "Multiple Comparisons And Error Rate," Journal of College Student Personnel, 13, 154-158.
- Lange, Allan L., 1969. "An Empirical Study of Sampling Error In Factor Analysis" (Unpublished doctoral dissertation, Michigan State University).
- Morrison, Donald F., 1967. Multivariate Statistical Methods. New York: McGraw-Hill Book Company.
- Sakoda, J. M., Cohen, B. H., and Beall, G., 1954. "Tests of Significance For A Series of Statistical Tests," Psychological Bulletin, 51, 172-175.
- Sedlacek, William E., and Brooks, Glenwood C., Jr. 1969. "The Development of a Measure Of Racial Attitudes," Cultural Study Center Research Report #10-69, College Park: University of Maryland.
- Sedlacek, William E., and Brooks, Glenwood C., Jr., 1971. "Racial Attitudes of White University Freshman," Cultural Study Research Report #7-71, College Park: University of Maryland.
- Tatsuoka, Maurice M., 1969. "Multivariate Analysis" Review Of Education Research, 39, No. 5, 739-747.
- Torgerson, Walter S., 1962. Theory And Methods of Scaling. New York: John Wiley and Sons, Inc.
- Wright, David J., and Porter, Andrew C., 1968. "An Adaptation Of Frank B. Baker's Test Analysis Package For Use On The Michigan State University CDC 360 Computer," Occasional Paper No. 1, College of Education Office of Research Consultation, Michigan State University.

TABLE 1

SAS ITEMS LOADING HIGH ON ROTATED FACTORS WITH  
VARIMAX SOLUTION, UNIVERSITY OF MARYLAND, 1969

Factor	I			II			III			IV			V		
	A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B
42	42	1		21	19	21	52	81	52	81	11	38	11	61	87
43	43	2		22	21	22	53	82	53	82	12	91	12	62	88
44	44	3		23	22	23	54	83	54	83	13	92	13	65	89
45	45	4		28	23	26	55	84	55	84	14	93	14	66	90
46	46	5		30	26	27	56	85	56	85	17	94	16	67	
47	47	6		31	28	28	57	86	57	86	20	95	17	68	
48	48	7		32	30	29	58	88	58	87		96	19	69	
49	49	8			31	30	59	89		88		97	20	70	
50	50	9			51					89		98			
		10			87							99			
		32										100			
		41													
		42													
		43													
		44													
		45													
		46													
		47													
		48													
		50													
		61													
		62													
		64													
		65													
		66													
		67													
		68													
		69													
		70													
		80													

VI			VII			VIII			IX			X			
A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B	
91	92	11	72	52	71	71	15	24	24	24	33	61	1		
92	93	12	73	54	75	75	72	25	25	25	59	62	4		
93	94	13	74	55	79	79	73	51	26	27	60	64	7		
94	97	14	76	56			74		27	29	63	65	9		
96	100	16	77	57			76		29			66			
97		17	78	58			77					67			
98		19	80				78					68			
99		20	90				90					69			
100															



TABLE 1  
(Continued)

XI			XII			XIII			XIV			XV			XVI		
A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B	A&B <sup>a</sup>	A	B	A&B	A	B
1	71	73	37	16	31	15	39	18	51	36	81	33	33	15		64	36
2	75	74	39	32	37	18	40	48	95		82	34	34				
3	79	76	40	38	39	35	53				83	41	59				
4		77			40	36	80				84	60	60				
5		78				38					85	63					
6						59					86						
7																	
8																	
9																	
10																	

XVII			XVIII			XIX			XX			XXI			XXII		
A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B	A&B	A	B
	2	34		41	72		91			3			35			99	
	5	35					95						37				
	6						96						63				
	8						98										
	10																

<sup>a</sup>Forms A&B Combined contained 15 factors, Form A 22 factors, and Form B 18 factors.

TABLE 2

SAS ITEMS LOADING HIGH ON ROTATED FACTORS WITH  
VARIMAX SOLUTION, MICHIGAN STATE UNIVERSITY, 1970

		I			II				III				IV			
Form	A&B	A	B	C	A&B	A	B	C	A&B	A	B	C	A&B	A	B	C
42	41	61	61	21	91	21	1	52	81	91	19	91	22	81	81	
43	42	62	62	22	92	22	2	54	82	95	21	92	24	82	82	
44	43	64	64	24	93	24	3	55	83	96	22	93	25	83	83	
45	44	65	65	25	94	25	4	56	84	98	26	94	26	84	84	
46	45	66	66	26	96	26	6	57	85		27	96	27	85	85	
47	46	67	67	27	97	27	7	58	86		28	97	29	86	86	
48	47	68	68	28	98	29	8	72	87		29	98		87	87	
49	48	69	69	29	100		9		88		30	99		89	88	
50	49	70	70	30			10		89			100			89	
	50															

V				VI				VII				VIII			
A&B	A	B	C	A&B	A	B	C	A&B	A	B	C	A&B	A	B	C
81	15	52	11	11	61	11	42	61	1	73	91	15	11	1	72
82	73	54	12	12	62	12	43	62	2	74	92	73	12	2	73
83	74	55	13	13	64	13	44	64	3	77	93	74	13	3	74
84	76	56	14	14	65	14	45	65	4		96	76	14	4	77
85	77	57	17	17	66	17	46	66	5		97	77	17	6	78
86	78	58	20	19	67		47	67	7		99	78	19	7	
87				20	68		48	68	8		100		20	8	
88					69		49	69	9					9	
89					70		50	70	10					10	

IX				X				XI				XII			
A&B	A	B	C	A&B	A	B	C	A&B	A	B	C	A&B	A	B	C
18	52	71	52	1	51	35	31	31	33	42	71	71	31	34	33
35	54	75	54	2	53		32	32	34	43	75	75	32	63	34
36	55	79	55	3	59		37	37	35	44	79	79	37		35
90	56		56	4	60		38	38		45			38		59
95	57		57	5				40		46			90		60
	58		58	6						47					
	72			7						48					
				8						49					
				9						50					
				10											

TABLE 2--(Continued)

XIII				XIV				XV				XVI			
A&B	A	B	C	A&B	A	B	C	A&B	A	B	C	A&B <sup>a</sup>	A	B	C
23	71	31	16	41	18	33	23	33	21	90	95	16	39	36	51
39	75	32	80	51		59	39	34	23		98	80	40	88	53
	79	37		53		60	40	63	28					99	
		38		59					30					100	
		40		60											

XVII			XVIII			XIX			XX			XXI		
A	B	C	A	B	C	A	B	C	A <sup>a</sup>	B	C	A	B	C
99	51	36	6	41	24	16	76	76	36	15	63		20	15
	53		95	92	25	80			63	16				18
				93						18				94
				94						80				
				97										

XXII		XXIII		XXIV		XXV		XXVI	
B	C	B	C	B	C	B	C <sup>a</sup>	B <sup>a</sup>	
		90	23	5	5	19	41	72	
			39			28		78	
						30			

<sup>a</sup>Forms A and B Combined contained 16 factors, Form A 20 factors, Form B 26 factors, and Form C 25 factors.

TABLE 3

PRINCIPAL COMPONENTS FACTOR LOADINGS OF SAS FORMS A AND B  
 COMBINED, ROTATED TO VARIMAX SOLUTION  
 (N = 866)\*

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	$h^2_{**}$
1	25	00	03	-11	10	-01	-18	11	01	-67	-06	-00	-05	-10	-01	-05	59
2	17	-11	10	-11	03	02	-20	-00	01	-64	-05	06	10	02	01	03	54
3	-16	10	-11	10	-03	-09	09	02	01	54	-01	-06	-11	-02	-01	-14	41
4	22	-05	17	-04	06	12	-19	11	-05	-47	-09	-01	-02	-07	-10	06	41
5	15	-02	-01	-01	02	-04	-84	15	-22	-33	-05	-12	-03	-10	-19	-22	32
6	-07	01	-07	12	-08	-07	19	12	-34	37	04	-08	-14	-17	-14	43	
7	27	03	-00	-06	14	04	-22	11	-05	-66	-07	-05	-11	-13	-02	-08	63
8	-19	07	-06	14	-11	01	17	04	11	60	00	-04	-05	-04	-07	50	
9	28	-03	01	-07	08	00	-20	05	02	-67	-07	-03	-10	-07	-05	60	
10	-15	12	-07	12	-10	-05	29	04	02	54	04	-11	-11	-01	-19	51	
11	01	-09	-04	00	07	-72	07	04	10	06	-09	-06	-01	11	02	60	
12	-04	-10	-09	07	-00	-77	01	02	11	06	-01	-05	-07	03	06	65	
13	00	-02	-10	02	03	-65	10	-08	13	13	-11	-00	-02	-01	-07	51	
14	-00	-12	-02	-02	11	-64	-02	-02	-06	05	-10	08	-38	-03	-09	49	
15	-07	-00	05	02	05	-25	-02	-36	-16	-02	-10	07	22	-14	-15	42	
16	09	-07	09	-11	07	-22	-06	11	02	-07	-11	-09	-04	-03	-02	54	
17	-07	-09	-02	-07	13	-59	-02	-11	-13	-12	-06	10	08	-01	-05	53	
18	02	-03	05	-14	08	-06	-10	07	-31	-11	-05	01	14	-01	-07	28	
19	-04	-25	00	-15	16	-41	05	-07	06	-09	-05	-03	15	-05	31	28	
20	05	-06	00	-13	15	-45	01	16	03	-09	04	-17	01	-08	07	49	
21	03	-71	01	-09	12	-08	-04	06	11	-06	-08	-05	28	-03	-00	64	
22	01	-73	05	-01	10	-11	01	00	07	-04	-12	-03	10	00	-06	60	
23	-06	04	02	06	05	-06	04	10	02	07	01	09	-61	-04	-07	42	
24	-05	-61	-00	-05	05	-05	-11	04	-00	01	-10	01	-20	06	04	47	
25	-05	-67	04	-07	08	-09	-05	04	02	02	-10	01	-29	07	-04	57	
26	02	-74	01	-08	11	-12	01	-03	-01	-04	-11	03	16	02	-01	63	
27	07	-65	15	-11	11	-01	-10	05	-22	-08	-03	02	-08	-01	15	56	
28	-08	56	07	17	-13	04	-02	-01	-13	15	05	-07	-36	-01	-09	60	
29	04	-66	14	-09	12	-05	-18	09	-08	-06	-14	03	-36	02	06	56	
30	-10	43	01	12	-08	05	00	-01	-13	07	-02	-05	-36	06	-16	45	
31	03	-16	-02	-16	13	-11	01	01	15	-06	-02	-05	19	06	-03	56	
32	-02	-20	01	-15	12	-05	-02	-00	-04	-08	-02	-06	19	01	11	43	
33	-C4	-01	-09	-07	05	-05	-01	02	10	-03	-23	07	-14	20	-06	43	
34	02	11	-04	-03	-04	01	01	-05	-07	02	00	-04	-03	05	03	50	
35	-16	-01	14	04	-07	06	-04	-16	-28	15	08	-08	-10	-24	04	26	
36	-12	-02	-11	03	01	-10	02	03	37	04	08	05	-05	-11	02	20	
37	05	-21	-03	-12	12	-13	-08	10	18	-09	-66	04	13	-10	12	65	

TABLE 3 --- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	$\eta^{2**}$
38	06	-25	13	-17	11	-11	-07	14	00	-10	-51	-06	-10	14	06	17	50
39	05	01	06	08	-01	00	10	06	-01	-09	27	-02	-50	02	-08	23	42
40	-00	-11	-04	-19	-01	-12	-07	-02	-06	-13	-43	09	25	-04	-10	-01	36
41	06	12	-10	09	01	11	01	02	17	00	01	-02	05	-38	-19	-11	27
42	79	-01	-04	-07	08	-04	-12	-00	05	-16	-01	04	01	-06	09	-00	69
43	<u>66</u>	-08	12	-16	05	03	-13	00	-12	-19	03	02	02	04	06	06	57
44	<u>67</u>	-00	05	-07	04	-01	-10	09	14	-12	-02	-03	01	-12	-01	-03	52
45	-71	-08	04	09	-04	-09	14	-05	-02	18	06	-09	-06	16	-02	-03	63
46	55	-07	11	-09	-00	-03	-12	01	06	-18	-02	04	01	18	-08	06	42
47	<u>72</u>	-08	12	-10	02	04	-21	07	-08	-11	-05	04	01	-02	04	14	64
48	<u>64</u>	04	-01	-08	08	08	-13	10	-08	-15	06	-03	00	-23	-08	03	55
49	<u>73</u>	-03	03	-12	08	-06	-14	01	-01	-17	-01	04	-03	07	04	14	62
50	-75	-06	05	16	-09	-02	22	-03	01	20	02	-10	-06	07	-02	-06	71
51	-14	-11	25	-07	05	-10	-03	-04	05	09	-13	-19	-07	44	01	-11	39
52	-07	-14	67	-14	-11	06	-17	-01	-10	03	-05	04	-07	<u>13</u>	05	03	57
53	19	06	-33	10	04	-00	15	09	10	-07	14	08	02	-43	-05	-09	43
54	06	-04	76	-04	-05	04	-07	08	03	-06	-06	-05	-03	-01	01	02	62
55	07	-08	<u>78</u>	-07	-07	04	-09	01	-06	-08	-00	02	03	-01	03	-00	65
56	-05	05	-64	09	03	03	10	-02	-02	06	05	04	10	-07	-09	-04	47
57	09	04	<u>67</u>	-10	-08	12	-07	05	-03	-06	07	12	04	-12	03	08	54
58	03	-03	<u>71</u>	-08	-09	-00	-08	05	-07	-16	12	09	04	-05	-02	-00	59
59	13	-02	<u>10</u>	03	-07	-01	04	02	-06	-07	17	09	-03	-51	21	-01	39
60	00	03	-16	-04	12	-05	10	08	06	07	04	-09	05	<u>45</u>	-26	-06	36
61	08	-12	15	-12	07	02	-66	15	-04	-12	-00	-03	03	<u>01</u>	00	00	53
62	-14	05	-05	06	-03	-02	<u>71</u>	-08	04	17	04	-01	-01	-09	01	09	59
63	09	00	-09	04	-01	05	<u>09</u>	-06	11	04	14	-01	-09	-15	-34	25	27
64	-13	10	-12	15	-07	-08	53	10	07	04	-00	-08	-01	-10	00	-11	40
65	23	-06	07	-08	05	-01	-72	07	-01	-22	-03	00	-01	-10	00	00	65
66	14	01	10	-04	04	06	-59	16	-10	-16	-11	-10	06	-14	-10	-04	50
67	-09	04	-16	10	-08	-05	<u>65</u>	-06	01	15	-03	-08	-07	-16	-16	-02	57
68	-18	-03	00	06	-08	-02	<u>61</u>	-04	-04	16	02	03	03	-02	05	02	45
69	19	-05	11	-11	05	-01	-68	05	-05	20	-02	03	-02	-00	-01	08	58
70	-13	05	-13	15	-12	-06	<u>63</u>	-01	-15	10	07	-01	-01	-15	-11	-13	56
71	08	-07	02	10	-04	-06	-01	22	-01	-06	-05	60	-06	01	01	01	46
72	09	05	29	-10	-14	17	-18	28	-23	-09	12	22	-08	00	-19	10	43
73	-05	-02	<u>06</u>	01	03	-09	02	-64	12	-03	-10	-21	12	-03	03	-09	49
74	07	-01	-07	04	07	-02	-05	<u>56</u>	12	-03	-10	-08	-03	-02	03	10	39
75	-02	-10	-05	-06	19	-09	-07	<u>11</u>	-11	02	-05	-56	-03	07	-02	18	45
76	07	-08	02	07	02	-08	-03	<u>56</u>	-08	01	-04	-07	05	-04	04	-14	38
77	06	-02	18	-10	-05	02	-15	<u>67</u>	-03	-08	03	19	-05	-03	04	01	58

TABLE 3 -- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	h <sup>2**</sup>
78	05	-05	03	-09	13	01	-21	55	-12	-07	-09	-05	-03	-04	-02	14	43
79	-15	10	-06	01	04	-04	03	-01	04	04	04	-67	-01	07	-01	-03	50
80	13	-03	14	-14	06	03	-10	29	01	-04	-16	-04	-05	10	04	41	36
81	-08	03	10	04	-76	08	08	01	-03	03	-01	06	02	-01	-01	00	62
82	03	-10	-08	-12	59	-06	-08	13	-10	-14	07	-06	-07	-08	-09	06	47
83	-01	15	01	06	-68	04	11	02	-13	03	08	01	02	-04	-10	04	54
84	09	-14	04	-07	-59	-09	-01	00	13	-09	-17	-00	15	09	-00	04	48
85	-04	04	06	02	-70	07	01	05	-20	01	13	05	-02	02	-04	01	56
86	04	-08	-09	-04	67	-07	-06	09	-14	-10	01	-02	-02	-07	-06	02	52
87	-06	11	-05	10	-53	08	02	12	-26	08	22	-01	-10	-10	04	-08	48
88	-08	12	03	15	-57	07	08	-08	16	08	05	-02	-10	-12	01	-04	44
89	-08	04	11	06	-78	03	05	-01	10	-01	-04	10	04	-06	-00	00	66
90	07	02	-07	10	09	-08	16	-07	30	04	-26	-04	06	-09	07	-03	24
91	-12	09	-03	64	-09	03	04	06	-28	09	14	02	-11	-03	04	02	56
92	09	-12	18	-63	03	-02	-10	04	-07	-09	-05	-02	-01	03	-04	02	49
93	-08	07	-05	66	-05	-01	14	01	03	12	03	-01	-02	-08	-03	-07	51
94	-13	-00	05	54	-05	-05	09	08	00	16	01	-03	-01	-02	02	-02	36
95	-04	00	02	39	-07	11	-01	-01	-52	-05	01	08	-14	08	04	-01	46
96	12	-10	04	-67	14	-03	-08	02	31	-03	-13	-06	15	-06	-06	04	65
97	-16	08	-13	60	-08	01	11	-04	11	06	04	-00	-01	-05	-03	-09	46
98	06	-06	06	-55	08	-14	-10	03	39	05	-21	-12	36	-02	-02	-03	56
99	-11	09	-06	38	-08	07	15	-11	14	10	10	06	07	-14	-03	02	29
100	08	-06	20	-67	11	-01	-08	02	-16	-11	-07	-01	-03	06	06	03	5b

PROP.  
VAR.

07

06

05

05

06

04

06

03

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05

03

02

02

02

02

02

02



TABLE 4  
 PRINCIPAL COMPONENTS FACTOR LOADINGS OF SAS FORM A  
 ROTATED TO VARIMAX SOLUTION (N = 456)\*

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	$h^2_{2**}$
1	09	-05	-10	-06	-07	-14	-64	-11	16	03	-05	-02	-07	-00	16	-03	-14	11	02	03	57
2	11	-07	01	-10	-02	-19	-62	01	10	08	-04	00	03	-11	-09	-04	09	-02	-19	-04	54
3	-04	09	03	01	00	03	52	12	-19	-12	06	03	-10	13	15	04	-21	-06	-08	09	46
4	17	-02	-04	01	-09	-11	-43	-18	16	-04	20	-08	-01	13	06	-11	20	03	21	02	46
5	08	02	00	-12	-11	-03	-43	-04	01	-08	21	-05	-10	03	-02	-10	-09	-03	04	35	43
6	-01	15	00	-20	-11	21	18	02	-03	-20	14	-00	-02	03	15	-03	-17	37	03	19	44
7	17	-09	01	01	-09	-23	-63	-16	08	-10	03	-01	-05	04	19	02	-21	07	04	63	63
8	-10	15	06	-09	-01	17	57	04	-02	10	-02	-00	-06	11	17	-08	-11	06	-04	48	48
9	15	00	-03	04	03	-21	-65	-06	05	-04	09	10	-06	-03	12	15	-10	-04	-04	58	58
10	-06	07	10	07	01	35	50	07	-07	12	18	02	-13	-11	20	-05	-11	11	05	-04	56
11	-14	-05	-04	-05	-04	09	05	74	-09	04	01	07	-05	12	-07	-05	-04	-03	04	64	64
12	-19	01	01	-03	-03	05	20	77	-11	-01	-04	10	-07	09	-02	01	02	-01	-03	67	67
13	-18	03	00	-03	12	06	19	65	-09	06	10	11	-11	-15	11	-04	-01	-03	01	60	60
14	-10	-02	-20	-14	09	-03	20	58	-04	06	-00	10	07	-17	04	05	-02	07	00	52	52
15	-12	05	-02	03	44	02	-0	17	05	-13	15	04	05	-37	-06	-26	00	-07	09	52	52
16	01	-16	-06	-06	06	-06	01	20	06	-04	08	10	-03	-16	-00	05	04	-03	03	48	48
17	-15	-09	-16	-04	17	02	07	47	-01	04	02	-00	09	-46	-09	-08	04	04	04	60	60
18	03	-08	-09	02	-09	-08	16	66	03	09	-01	-00	-00	-69	-04	01	04	03	10	55	55
19	-15	-12	-13	-14	16	10	-04	44	01	21	02	07	-06	-21	-28	-04	01	-05	09	55	55
20	-07	-17	-19	-05	-17	-01	-01	44	11	11	05	-04	-13	-05	-17	15	01	01	17	42	42
21	-05	-06	-11	-46	-00	-00	-01	06	-01	07	05	11	-11	-07	-55	-02	-04	-07	01	58	58
22	-05	02	-10	-05	01	09	-02	12	06	07	10	09	-03	-00	-35	06	-04	-07	01	60	60
23	-03	-02	-03	-13	-16	02	03	11	-04	03	05	01	19	10	48	27	-15	-04	03	46	46
24	-03	-04	-02	-68	-03	-09	-02	03	-04	-01	-12	06	01	03	-01	-21	06	10	04	59	59
25	-06	-10	-07	-75	-02	-01	01	07	-03	-04	-03	06	05	12	07	03	-02	-04	05	61	61
26	-02	-10	-09	-51	11	05	-02	16	-08	-08	03	06	04	-04	-12	08	06	10	09	63	63
27	04	-12	-03	-65	-08	-04	-09	-02	06	00	02	06	04	-13	-12	08	06	10	02	53	53
28	06	13	04	-28	-03	-04	04	-05	10	-13	06	04	04	-01	67	02	10	03	03	61	61
29	08	-09	-11	-58	-03	-06	-04	02	-00	-04	-11	10	-02	03	-26	02	10	03	03	61	61
30	03	14	06	13	-02	04	-07	-06	03	-09	-04	-14	07	03	64	-09	-01	-01	-06	51	51
31	-05	-15	-12	-09	07	-00	04	07	-02	19	08	-14	-02	-01	64	06	07	-01	-10	52	52
32	-03	-18	-08	-19	03	-03	05	-03	05	-02	09	65	-03	-10	-14	08	-02	-12	04	56	56
33	-02	-10	-11	-19	-05	-05	-04	09	-11	-02	09	31	-03	-10	-06	-04	10	-05	07	57	57
34	03	-07	-00	06	02	-06	-04	03	-05	06	50	31	02	03	-03	01	06	02	03	46	46
35	01	08	10	02	21	-01	08	04	-08	-08	38	-26	05	05	-03	01	-05	02	03	51	51
36	-13	-03	-03	02	-04	04	06	04	04	-08	38	-26	05	05	-03	01	-05	02	03	47	47
37	-05	-12	-03	-11	-00	-11	-00	09	-12	-01	04	19	-01	10	-06	04	-14	-13	18	29	29
38	04	-16	-05	-14	-04	-04	-05	10	06	07	-09	67	-02	03	-12	-16	04	04	19	61	61

TABLE 4 -- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	h <sup>2</sup> **
77	03	-09	09	-05	-69	-15	-08	-07	23	-02	-01	-08	18	-06	08	-02	03	02	-07	05	64
78	04	-07	-11	-09	-56	-16	-88	-07	-02	-03	-02	09	-03	-17	01	-04	06	07	23	-00	64
79	-06	-08	-10	09	05	-01	-07	07	-10	15	-14	-01	-67	-01	09	03	-10	06	-01	-03	47
80	09	-11	-04	-02	-19	-05	-04	-07	12	11	-07	08	-01	-03	-05	02	-09	01	60	04	37
81	05	05	79	02	-02	12	-01	-05	10	-01	-02	-02	04	01	02	-07	01	01	04	04	48
82	-01	.12	-68	-07	-09	-00	-03	03	-11	-06	09	-01	-13	-02	02	06	07	18	04	01	67
83	05	08	68	12	-01	10	01	-05	11	-04	06	00	-01	-13	02	06	07	18	09	-10	59
84	-01	-11	-61	-01	07	-02	-08	10	02	06	-01	19	-00	15	-03	02	-08	18	-06	-09	58
85	05	00	68	02	-09	02	01	-19	11	-03	07	-16	-04	-02	-05	-12	21	-09	07	06	57
86	01	03	-70	-05	-06	03	-10	02	-16	-06	10	-05	-11	-04	02	03	00	22	-04	-01	58
87	03	10	47	10	-18	03	-03	-08	-03	-18	-03	-22	-05	07	05	-11	-08	40	-12	-10	61
88	-04	09	60	06	07	04	-00	-03	05	-03	-02	-06	-02	24	07	-10	27	-03	02	-04	56
89	00	02	77	-01	03	05	-03	-02	16	03	04	01	11	13	13	-02	09	-09	-01	04	55
90	04	06	-03	09	05	10	03	16	-04	-04	-02	06	06	15	08	-19	13	-26	02	01	69
91	-00	66	08	06	-30	02	-02	05	-08	-15	-03	-13	15	09	07	04	12	19	-02	08	59
92	06	-65	01	-08	-04	-03	-11	04	15	-04	09	06	-04	-02	-07	-11	-08	01	04	02	51
93	-05	72	07	06	-07	14	07	01	-02	-12	-03	06	-04	07	03	-01	-07	-09	-05	-09	61
94	-11	50	03	02	-07	07	13	04	08	-08	-05	01	10	15	-02	-08	-04	01	03	-14	37
95	01	42	07	05	-00	09	-07	-05	01	-02	03	-01	11	-06	01	03	04	49	-01	-14	49
96	02	-69	-12	-08	-02	-08	-01	02	07	08	01	08	-10	02	-08	-15	-03	04	04	16	65
97	-12	68	04	00	-03	10	06	-02	-11	01	04	-09	-06	02	10	-06	-07	-15	04	-22	65
98	00	-58	-02	-03	-04	-09	07	18	06	-02	02	20	-12	09	-02	-12	-07	-30	-08	-12	58
99	-09	36	07	03	09	15	04	-01	-05	-07	00	-14	08	-01	17	-09	46	-04	-05	-01	46
100	06	-73	-12	-01	-05	-01	-09	05	18	02	-02	03	04	05	-03	-04	04	05	05	04	61

PKOP.  
VAR.

TABLE 4 -- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	h <sup>2</sup> **
39	02	11	-02	02	-05	08	-12	08	04	-09	05	-04	00	-04	14	64	-14	07	08	-18	55
40	-01	-20	01	-12	00	-07	-84	12	-03	01	09	23	05	-12	-05	-50	-12	02	-00	-05	43
41	25	-02	-05	-03	-05	-10	01	-16	-04	-23	10	03	01	-19	14	-09	09	-16	-04	21	32
42	74	-02	02	00	04	-17	-00	-06	03	02	-14	-01	06	07	10	-01	-03	08	00	-01	63
43	64	-09	02	02	-01	-11	-16	-11	12	04	-03	-03	-03	-01	-10	-08	01	09	07	03	51
44	59	-03	04	-03	-07	-07	-05	-00	11	-05	03	-02	-07	15	01	-01	84	-13	10	11	45
45	-66	06	-06	-03	08	14	08	17	-06	11	07	-03	-07	07	-06	-04	-01	06	04	-03	55
46	49	-06	06	06	-02	-13	-12	01	15	20	22	06	-07	05	-13	10	10	-08	-15	-05	47
47	69	-07	05	-05	-04	-18	-09	-12	12	-07	09	04	-06	05	00	04	17	-02	13	-05	62
48	64	-05	-07	-02	-06	-11	-12	-23	11	-21	06	04	-06	05	00	04	02	-02	13	04	60
49	66	-03	02	03	00	-04	-20	-02	04	11	08	-03	02	-16	04	-03	02	07	07	02	60
50	-71	10	-01	-06	02	23	03	12	-06	05	01	03	05	07	05	-04	-14	01	-02	-03	53
51	-03	-13	-02	-09	-01	10	06	07	00	55	05	15	-15	-00	04	-03	05	10	10	03	64
52	10	-21	19	-09	-01	-11	-05	-04	58	16	-01	-02	02	-04	11	01	-05	-02	-02	00	45
53	09	12	-02	03	-04	05	-06	-01	-14	-65	03	-06	11	-04	01	06	-08	06	05	-03	53
54	13	-08	12	-00	-06	-03	-09	-01	75	-00	03	06	-02	14	02	01	-08	03	05	-03	65
55	14	-07	11	00	-01	-03	-15	-00	78	05	-07	05	03	08	00	-03	00	-00	02	02	68
56	-05	14	-07	03	00	09	05	04	-65	-08	11	02	04	-03	-04	-10	14	12	-16	-06	55
57	17	-07	14	12	-04	-05	-06	-10	67	-18	-05	01	09	-06	01	06	05	10	02	-06	60
58	08	-06	13	07	-09	-04	-18	02	70	-11	00	11	08	-03	-04	01	01	02	-03	-09	61
59	02	11	09	-11	-05	06	-01	-05	19	-56	-11	-23	-04	-02	13	01	-01	-13	-11	-01	50
60	04	-05	-19	12	-04	08	-80	10	-22	43	16	00	07	10	-08	-10	-19	11	24	-01	47
61	08	-10	-09	-07	-14	-66	-07	02	12	-02	02	-02	-07	03	-03	04	04	23	02	-12	59
62	-15	04	04	02	06	76	-07	-01	-07	04	-01	05	04	01	-06	-03	03	15	20	09	65
63	10	05	-01	-10	03	09	05	-03	-10	-09	26	-07	-07	07	08	11	17	-05	07	09	39
64	-20	17	10	01	-03	55	-01	04	-04	-06	-10	03	-07	-01	00	02	05	-05	07	04	47
65	22	-04	-01	-05	-05	-76	-14	00	05	-02	20	-03	07	04	-05	-12	20	14	-10	08	60
66	17	-02	-02	-02	-16	-63	-18	-10	06	-12	10	01	-05	-03	10	03	-01	05	06	16	61
67	-14	08	12	-07	10	67	15	01	-06	-11	20	01	-05	-03	10	03	-01	01	08	16	61
68	-06	03	-03	-05	02	66	09	08	00	-02	-15	-03	07	04	-05	-08	04	14	-06	-04	60
69	14	-08	01	-01	00	-66	-19	-01	02	-08	09	05	02	-05	-00	08	-03	-00	14	-10	58
70	-13	15	11	-02	-01	66	08	04	-05	-12	05	-13	-01	-08	02	-00	-01	14	11	08	54
71	09	19	08	-07	-20	09	-07	01	03	-01	-04	-01	62	14	01	01	-03	07	05	09	57
72	10	-04	14	11	-20	-12	-08	-23	37	-04	25	-08	19	-07	-01	14	06	13	-05	00	50
73	-02	01	-08	-04	61	02	08	09	-14	01	-11	07	-19	07	-01	07	02	05	02	05	59
74	04	03	-05	-02	-61	-03	-02	03	-07	-06	-04	11	-08	07	-01	01	01	-06	10	-06	43
75	08	-09	-25	-07	-15	-04	-03	14	-12	04	-01	10	-08	-05	-10	03	09	-11	29	-07	51
76	07	06	01	-08	-66	-04	00	06	03	04	-02	-06	-02	03	-09	-08	06	-03	09	09	50



TABLE 5  
 PRINCIPAL COMPONENTS FACTOR LOADINGS OF SAS FORM B  
 ROTATED TO VARIMAX SOLUTION (N = 410)\*

	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI	h <sup>2</sup> **	
1																									
2																									
3																									
4																									
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14																									
15																									
16																									
17																									
18																									
19																									
20																									

TABLE 5 -- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII
38	14	-20	-12	-13	13	-14	12	-20	-07	10	11	-06	-52	17	04	13	-06	-07	-09	00	-07	-
39	.93	00	-01	08	13	06	11	03	-04	-09	06	-09	15	08	-12	-05	-06	00	-14	01	-04	-
40	02	-12	-01	01	-02	-01	-04	-27	13	03	03	-02	-54	-01	-19	-07	00	-23	09	-10	-04	-
41	-11	-03	11	03	60	-05	-09	-03	-01	-00	-38	-08	19	-04	-09	-06	18	45	08	14	11	-
42	10	-16	10	-17	65	-13	-03	-22	-03	05	76	07	-01	-02	-01	07	-03	-03	-06	14	-	
43	11	-15	01	-08	21	-05	02	-17	00	-10	69	07	-03	08	02	09	07	-17	08	-06	-	
44	16	-09	14	-14	12	-13	08	-16	06	12	62	-10	-04	15	09	02	-06	06	-01	09	-	
45	-26	04	-06	12	-01	-02	05	18	-06	-02	-70	08	13	-01	02	03	03	01	07	07	-	
46	07	-12	06	-06	10	-10	12	-22	04	-09	60	03	-06	-02	05	04	00	-04	-06	04	-	
47	21	-11	03	-08	14	-08	11	-12	-05	04	73	04	-03	11	02	09	-01	-10	-03	-00	-	
48	24	-05	07	-07	04	-05	00	-09	10	-08	53	05	13	05	-05	04	08	-01	-03	-09	-	
49	24	-14	10	-18	06	-09	-07	-10	05	07	72	06	-02	-04	01	02	01	-11	-01	-09	-	
50	-34	06	-07	18	-01	01	04	21	-07	-05	-70	03	10	05	-00	06	06	12	05	-01	-	
51	04	00	07	-10	23	-17	03	02	-13	06	-06	08	-01	-10	-00	-10	06	-03	14	05	-	
52	16	-11	08	-03	65	03	02	-05	05	-05	-06	-03	01	06	07	-31	-31	-06	-14	15	-	
53	-15	-08	-03	-08	-34	-08	-01	03	00	-00	02	05	14	-10	-08	04	62	04	-07	15	-	
54	14	-04	05	-05	72	07	12	-10	-06	14	04	-09	-06	10	01	03	-13	11	00	-04	-	
55	17	-11	00	02	-60	09	-02	-07	-02	15	15	01	09	01	08	09	-03	-02	04	08	-	
56	-11	07	02	-00	74	11	-07	12	-06	04	-14	-08	-01	25	11	09	-03	-02	04	-03	-	
57	10	02	05	01	74	14	-00	12	08	05	-05	-05	-00	08	08	-02	14	-15	-06	08	-	
58	09	-04	-00	04	75	06	-06	-13	05	-04	08	05	-00	02	02	03	-00	-08	-00	04	-	
59	-00	-03	-05	05	01	-01	00	-05	08	-04	16	09	07	80	-03	-03	-03	-03	03	-03	-	
60	-19	-04	04	-02	-10	-01	09	11	-18	14	02	02	05	-64	08	01	01	01	24	13	-	
61	64	-11	11	-03	20	09	13	-19	-03	-06	22	12	-07	03	01	05	05	-07	-02	02	-	
62	-76	13	-05	-00	-04	-06	06	15	03	04	-17	-06	12	-09	04	-04	04	04	03	-07	-	
63	-10	-01	-04	08	08	-05	00	09	-03	01	-06	-07	09	-06	00	04	11	-01	11	08	-	
64	-42	08	08	02	-16	05	00	21	-06	-01	-02	-05	01	-07	-02	06	04	-02	-06	03	-	
65	71	-13	03	-08	13	-01	05	-25	06	03	19	-05	-04	11	01	06	00	22	-09	11	-	
66	57	-00	03	-05	12	00	00	-16	-02	08	09	-04	-02	-01	04	-03	00	-07	-03	01	-	
67	-57	05	-03	00	-26	-03	-08	17	-12	13	-19	-02	02	-01	04	-05	-05	-00	-11	-07	-	
68	-64	04	04	20	-01	-00	02	17	-05	15	-21	-21	02	00	-25	-06	00	06	-10	07	-	
69	71	-03	03	-07	22	-01	09	-18	04	03	26	08	-03	-04	08	02	02	-09	10	-05	-	
70	-53	02	-16	10	-20	-09	-13	13	00	02	-21	07	-10	-02	08	-06	01	01	-14	04	-	
71	20	-13	06	00	-04	-11	21	-02	68	-07	03	04	-08	09	05	-08	11	-02	-10	-11	-	
72	25	-02	-03	00	18	11	11	-02	03	-14	11	00	01	04	13	-08	11	-02	-10	-11	-	
73	-03	07	03	-01	-01	-09	-71	-05	-09	02	00	-08	01	02	-16	00	00	-05	04	-10	-	
74	11	-08	02	-09	-01	-09	-74	-06	-06	00	02	-09	-10	-04	-16	-02	-07	-09	-08	-06	-	
75	07	-03	-03	-09	-01	-09	12	-03	-68	00	02	-09	-10	-04	-12	-07	-07	-08	-08	-04	-	
76	04	-11	-04	-06	01	-10	14	-02	-09	-03	02	-08	-04	05	18	-01	-05	-04	-21	-04	-	



TABLE 5 -- (Continued)

II	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI	n <sup>2</sup> *
13	-15	13	-14	12	-20	-07	10	11	-06	-52	17	04	13	-06	-07	-09	00	-07	-02	16	06	-02	-24	65
12	08	13	06	11	03	-04	-09	06	-09	15	08	-05	05	05	-14	01	-03	-04	10	76	-04	-07	03	74
11	01	-02	-01	-04	-27	13	03	03	-54	-01	-19	-07	00	-23	09	-10	-10	-10	-01	-30	-10	05	-11	64
10	03	10	-05	-09	-03	-01	-00	-38	19	-04	-09	-06	18	45	08	14	11	20	-01	-07	05	04	56	
11	-17	15	-13	-03	-22	-03	05	76	-01	-02	-01	-01	07	-03	-03	-06	-06	-06	03	-06	02	-01	02	75
10	-08	21	-05	02	-17	00	-10	69	07	08	02	09	07	-17	08	02	-09	-05	01	-01	01	-02	-12	69
14	-14	12	-13	08	-16	06	12	62	-10	-04	15	09	02	06	06	-01	09	07	-01	-01	-06	01	61	
14	12	-01	-02	05	18	-06	-02	-70	08	13	-01	02	-09	03	01	07	07	-24	03	-10	08	-03	73	
16	-06	10	-10	12	-22	04	-09	60	-08	-02	05	05	04	00	-04	08	-06	04	-25	12	-02	-13	58	
13	-08	14	-08	11	-12	-05	04	73	-03	-03	11	02	09	-01	-10	-03	-13	-00	-10	02	-02	-02	71	
17	-07	04	-05	00	-09	10	-08	53	05	13	05	-05	04	08	-01	-09	-07	12	14	18	-28	-12	58	
10	-18	06	-09	-07	-10	05	07	72	06	-02	-04	01	02	01	-11	00	-01	-17	-13	-06	02	-04	75	
17	18	-01	01	04	21	-07	-05	-70	03	10	05	-00	06	06	12	05	05	-09	-09	-00	02	-01	76	
17	-10	23	-17	03	02	-13	06	-06	08	-01	-10	-10	06	-67	-03	-09	14	04	-08	-10	-14	05	66	
18	-03	65	03	02	-05	05	-05	06	-03	01	06	07	-01	-31	-06	-06	15	15	-15	-04	05	07	66	
13	-08	-34	-08	-01	03	00	-00	02	14	14	-10	-08	04	62	14	-07	15	10	-08	-03	-07	06	64	
15	-05	72	07	12	-10	-06	14	04	-09	-06	10	01	03	-13	11	00	-04	04	04	05	03	01	66	
10	02	71	09	-07	-07	-02	-06	15	01	00	01	08	09	-08	-02	04	08	-06	-18	03	-07	-04	66	
02	-00	-60	11	-00	-04	08	04	-14	-08	-01	25	11	-12	22	02	04	-09	05	-17	-13	-12	05	65	
05	01	74	14	-00	-04	08	-02	05	-05	-00	08	08	-02	14	-15	-06	-09	07	05	01	-09	-05	68	
05	04	75	06	-06	-13	05	-04	08	05	03	02	02	03	-00	-08	-00	04	-15	07	-04	01	-05	68	
05	05	01	06	00	-05	08	-04	16	09	80	02	02	03	-03	-03	03	-03	-09	-17	-05	01	-05	68	
11	-02	-10	-01	09	11	-18	14	-22	02	-64	08	-02	01	01	24	13	07	-17	-05	-18	-16	-13	73	
14	-03	20	09	13	-19	-03	-06	22	-06	03	01	05	05	-07	-02	02	-02	-22	-02	-10	03	-01	68	
05	-00	-04	-06	-01	15	03	04	-17	12	-09	04	-04	04	-01	08	03	-07	-01	-04	03	02	02	70	
08	08	11	05	06	09	-03	-01	-04	-78	09	-06	00	04	11	-01	11	-06	-01	07	-00	02	13	55	
04	02	-16	-05	00	21	-06	17	-25	01	-07	-02	-02	06	04	22	-09	-04	04	-12	09	-24	02	69	
03	-08	13	-01	05	-25	06	03	19	-07	-04	11	01	06	00	-07	-03	01	00	11	04	03	02	69	
03	-05	12	-00	00	-16	-02	08	09	-04	-02	-01	04	-03	-05	-00	-11	-07	15	01	-07	-26	06	53	
03	00	-26	-03	-08	17	-12	13	-19	02	10	00	-06	00	06	06	-10	07	00	01	-07	04	06	68	
04	20	-01	-00	01	17	-05	-15	-16	-21	-10	03	08	-07	17	13	13	-07	-02	20	10	-03	05	64	
03	-07	22	-01	09	-18	04	03	26	08	-03	-04	08	02	02	-09	10	-05	-08	05	-00	-04	-06	73	
16	10	-20	-09	-13	13	00	02	-21	05	05	-02	-01	-06	01	-14	04	-13	19	10	01	-15	15	68	
06	00	-04	-11	21	-02	68	-07	03	-08	09	05	-08	11	-02	-10	-11	05	-04	02	-02	-16	-06	08	70
03	17	18	11	11	-02	03	-14	11	00	01	04	13	07	00	05	-10	-10	-01	04	03	-07	-05	71	
03	-01	-01	-09	-71	-05	-09	02	00	-08	-00	02	-10	-02	-09	04	12	-15	05	01	-03	-02	16	20	70
02	-09	-01	-09	74	-03	-06	00	01	-10	-04	02	-16	-07	-08	-08	-08	-06	-01	09	-02	-07	14	09	70
03	-09	-01	-09	17	-02	-68	00	02	-04	-10	-04	-12	-07	-04	-04	-04	-21	-04	09	12	-19	-06	08	68
03	-09	-10	-07	17	-02	-68	-03	02	-04	-10	-04	-12	-07	-04	-04	-04	-21	-04	09	12	-19	-06	08	68
04	-06	01	-10	14	02	-03	-03	02	-08	-08	05	-01	-01	-04	-04	-04	-21	-04	02	-02	-10	-08	04	65



TABLE 5 -- (Continued)

Year	TV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	XXVI	n <sup>2</sup> **
71	-00	14	-03	46	-07	07	05	10	03	-07	-02	08	00	12	-13	-43	02	-05	-16	16	08	07	-36	71
70	-14	05	-02	30	-06	-08	16	07	09	-11	04	07	-04	-07	-07	-23	-20	-00	04	08	-18	05	-44	59
69	-01	-06	-06	-01	11	-69	-08	-20	-18	04	-10	-10	-03	04	10	-20	13	-05	-11	-06	05	14	01	57
68	-04	14	-03	35	-09	02	09	16	-08	-15	-09	-05	07	05	-08	-08	-43	09	-12	15	10	-02	-07	69
67	77	03	08	-04	02	08	-00	-14	01	-01	-08	-01	06	08	09	-02	02	05	-07	03	06	-01	-11	62
66	-51	03	-06	15	-23	-03	-10	08	03	03	14	20	-12	08	-17	05	-04	-01	25	04	-19	00	-12	65
65	71	03	07	-01	11	-06	05	-10	-07	09	02	08	-02	06	-02	-11	-16	-06	11	01	-05	00	-11	62
64	-58	08	-09	-01	06	10	14	10	-03	-19	-18	-04	03	03	-02	-11	-01	-03	-14	-06	-03	-22	07	62
63	74	03	-01	01	06	09	-06	-10	-09	02	06	13	12	03	-00	02	03	-01	11	03	01	-02	04	67
62	-61	05	-10	09	-09	-03	-09	10	05	-14	-02	17	14	10	-09	13	-05	-03	21	06	-05	-03	-21	70
61	63	00	03	08	10	-09	-11	-08	09	11	06	18	02	07	06	17	-02	04	-16	04	06	-12	03	71
60	48	04	02	-13	16	-03	-03	-19	03	12	06	-08	-48	07	-07	-01	-02	04	-15	04	-10	02	08	67
59	75	04	-04	01	-03	08	02	-07	-02	03	08	-04	-24	04	-08	-09	-04	09	-15	-05	02	02	-02	74
58	-15	-16	-04	02	01	01	02	-07	03	-09	08	71	-01	04	15	11	05	05	-02	09	-03	-05	12	67
57	09	-03	-01	-03	12	-07	-04	-16	03	22	-07	-15	-10	06	14	-06	-04	-04	14	07	02	10	09	68
56	06	20	06	-00	-11	-04	08	22	-02	-10	00	33	12	03	-45	17	-07	-04	-03	11	-11	-02	-09	65
55	00	-17	-04	03	17	06	-10	-10	-01	06	-05	-10	-17	-00	56	10	02	-02	04	-08	-06	13	00	62
54	07	-04	-01	-00	18	-09	01	-14	05	03	-03	-05	-02	01	65	-15	-03	-15	-08	08	02	-05	02	66
53	06	08	02	-16	01	-09	-07	02	-04	-12	13	27	06	04	04	-09	-00	06	-06	05	-05	01	-02	65
52	96	-01	17	-06	-03	01	01	02	-01	-20	-00	-07	04	06	-22	-04	-03	01	02	-13	04	-04	-00	75
51	-14	08	02	-06	04	-09	-07	17	-01	01	07	06	-32	03	38	-01	10	15	00	-08	10	16	18	55
50	99	-01	-07	-01	04	01	-05	-19	-11	-16	-08	-07	-02	-09	-06	-06	-09	-06	01	-03	04	-04	08	72
49	-15	01	-04	-01	-03	-06	-01	11	07	-16	-08	02	-02	10	11	19	06	03	-00	02	00	-01	10	58
48	03	-06	09	03	-15	-13	-06	-10	10	-01	-04	-13	56	-02	-36	05	06	03	09	03	00	-05	-12	65

TABLE 6

PRINCIPAL COMPONENTS FACTOR LOADINGS OF SAS FORM C  
 ROTATED TO VARIMAX SOLUTION (N = 440)\*

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
1	04	77	-01	10	01	-13	-01	-04	-01	01	02	07	-02	-04	01	-09	05	15	-11	-05
2	12	64	-03	-03	-11	-14	-01	00	04	01	04	-04	04	08	07	02	-08	-12	-07	00
3	-08	68	-01	-08	00	13	05	-02	-07	11	02	05	-09	01	04	-07	-06	17	-01	09
4	15	63	05	05	-08	-06	-09	-15	06	-05	13	-03	06	-01	-04	13	-01	03	-01	05
5	00	49	-07	15	-03	-05	-06	00	14	-04	-04	-07	04	04	-07	-02	-19	-00	-06	08
6	-11	70	-07	-03	-11	03	12	-03	-16	05	-05	05	03	-26	-14	-02	04	-09	-10	08
7	-03	70	-01	19	04	-13	03	03	00	09	-02	04	03	00	01	-03	-06	16	01	08
8	-06	73	-09	-12	06	11	00	08	-03	09	-02	-11	07	05	03	06	-13	-02	08	08
9	00	74	03	13	00	-08	-03	-04	08	-04	02	11	10	03	-02	-07	-02	20	05	01
10	-16	63	-12	-16	02	14	-01	-05	-01	05	01	-06	-05	-00	-09	-06	-03	02	-05	03
11	-09	01	04	13	72	03	10	04	-10	-04	12	03	-08	-04	16	06	-05	-05	-06	05
12	-03	00	06	07	81	03	02	02	-08	-05	09	03	09	06	-03	-03	-03	-00	-08	11
13	-18	05	06	09	72	14	08	11	-06	-05	-03	03	02	02	-09	01	-08	11	06	06
14	-11	04	-00	04	72	04	04	06	02	-06	-06	-00	06	-06	-02	-01	-02	09	-04	15
15	-06	-24	-01	-13	25	02	-06	13	-00	-02	-06	-11	11	13	03	04	-04	22	-05	08
16	-01	07	-02	02	27	-06	03	12	14	-08	02	04	66	-03	-06	-00	09	11	12	08
17	-05	-14	-02	-02	62	04	08	03	-05	-09	00	-08	12	02	01	15	20	05	13	02
18	04	10	-04	09	02	-03	-09	-11	07	-01	-00	-13	05	-10	-09	-04	05	02	04	02
19	-12	06	35	03	28	03	-03	09	-04	-18	11	-15	16	-20	-02	17	-11	05	21	-11
20	04	-06	07	07	45	-03	-01	02	-05	-03	12	07	29	-19	-06	13	08	-22	02	02
21	-02	-04	79	02	04	-06	-05	09	01	-17	14	-09	-05	03	-02	07	-04	08	02	02
22	-07	12	71	08	05	-04	06	06	-02	-02	05	15	-02	-15	04	02	08	12	-10	-08
23	-00	-02	-27	08	06	06	11	10	-11	-05	-16	11	-02	-53	08	-06	-19	15	-20	22
24	02	12	26	12	-03	01	03	-04	06	-02	02	-02	-01	07	-01	05	-03	03	-03	-04
25	02	13	39	10	04	-05	10	-13	02	02	-04	10	13	00	19	-04	60	05	09	09
26	02	05	77	11	05	-10	06	04	-07	-01	-00	02	-04	07	-04	10	19	04	04	04
27	03	20	50	20	09	-12	-04	-12	12	06	08	-07	-01	07	-09	-01	09	35	-12	01
28	03	02	-80	-08	-06	04	09	02	-00	21	-03	08	-00	02	09	-06	10	-04	02	02
29	06	08	52	13	-01	-12	-05	-02	08	-14	-03	-07	09	02	-11	-01	28	-20	05	05
30	04	-02	-66	-13	06	-01	06	-05	-08	20	07	09	-17	-09	-09	07	15	-06	01	01
31	00	03	18	12	10	-03	-01	11	-01	-72	05	07	-06	14	00	02	06	-05	05	05
32	-04	22	06	10	14	-08	04	04	03	-41	05	11	-05	07	-17	-04	28	16	00	00
33	10	-13	16	-08	-05	04	-05	09	10	-11	03	-56	-05	11	02	-10	22	-08	01	04
34	06	-13	01	-11	-03	03	-00	05	08	20	-02	-73	-08	-07	-06	-10	09	-10	04	04
35	-06	-16	05	-02	-08	-00	11	04	27	-05	05	-32	06	-05	22	22	-29	06	22	04
36	-10	-13	-03	02	-03	-00	04	02	-06	-22	-01	02	-09	-15	03	10	63	03	09	04
37	02	08	26	09	08	-05	01	-01	-76	07	-01	04	13	10	02	02	-03	-03	04	04
38	-04	07	20	19	14	-06	08	-06	-55	04	00	04	20	-10	08	03	-02	-04	01	01
39	05	-01	02	04	07	-05	07	-04	08	08	-05	-08	-01	-74	-01	-05	-07	-06	-03	-02

TABLE 6

PRINCIPAL COMPONENTS FACTOR LOADINGS OF SAS FORM C  
 ROTATED TO VARIMAX SOLUTION (N = 440)\*

	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XXIII	XXIV	XXV	h <sup>2</sup> **		
	-01	10	01	-13	-01	-04	-01	01	02	07	-02	-04	01	-09	05	15	-11	-06	-00	14	06	-04	19	02	72	
	-03	-03	-11	-14	-01	00	04	01	04	-04	04	08	07	02	-08	-12	-07	00	14	06	33	-01	02	63	53	
	-01	-08	00	13	05	-02	-07	11	02	05	-09	01	04	-07	-06	17	-01	09	01	15	17	07	01	62	63	
	05	05	-08	-06	-09	-15	06	-05	13	-03	06	-01	-04	13	-01	03	-01	06	-00	01	-17	-28	02	68	68	
	-07	15	-03	-05	-06	-06	00	14	-04	-07	-02	04	-07	-02	-19	-00	-06	08	-01	-06	-56	-07	12	59	59	
	-01	-03	-11	03	12	-03	00	05	-05	05	03	-26	-14	-02	-02	04	-09	-10	-10	06	-33	19	-02	64	64	
	-09	19	04	-13	03	03	00	09	-02	04	03	00	01	-03	-06	16	06	01	01	06	11	15	04	68	68	
	03	-12	06	11	03	08	-03	09	-02	-11	07	05	03	06	-13	-02	-05	08	-12	00	18	02	-06	68	68	
	-12	13	00	-08	-00	-04	08	-04	02	11	10	03	-02	-07	-02	20	03	01	-12	-04	-11	08	04	55	55	
	04	-16	02	14	-01	-05	-10	05	12	01	-05	-00	16	06	-03	-05	-05	06	-01	-04	-04	07	-02	63	63	
	06	13	07	03	10	04	-08	-04	09	03	08	06	-03	06	-03	-05	-06	05	-01	-09	-04	03	05	71	71	
	06	07	81	14	08	11	-06	-05	-03	03	02	02	-09	-01	-08	-08	11	06	-09	-09	07	04	05	66	66	
	06	09	72	14	04	06	02	-06	-06	-00	06	-06	-02	-01	19	09	07	-04	-04	07	04	-06	-09	60	60	
	-00	04	72	04	04	04	02	-02	-06	-11	11	-06	03	04	-02	-04	22	-06	-04	-01	02	02	03	68	68	
	-01	-13	25	02	-06	13	-00	-02	02	04	66	-03	-06	-00	09	11	22	08	-01	-08	-34	-09	-14	65	65	
	-02	02	27	-06	03	03	14	08	02	04	12	02	01	15	20	05	04	15	25	19	-10	10	05	65	65	
	-02	-02	62	04	08	03	-05	-09	00	-08	12	02	08	04	05	02	13	02	61	-23	04	04	07	53	53	
	-04	09	02	03	-09	-11	07	-01	-00	-13	06	-10	-09	-04	05	02	04	02	26	01	-04	04	08	49	49	
	35	03	28	03	-03	03	-04	-18	11	-15	16	-20	-06	17	-11	08	21	-11	26	-08	-03	12	12	61	61	
	07	07	45	03	-01	09	-05	-03	12	07	29	-19	04	13	-13	07	08	02	01	01	-03	04	05	72	72	
	79	02	04	-06	-05	06	01	-17	14	-09	-05	-53	08	07	-04	12	-22	02	-04	01	-06	14	08	64	64	
	71	08	05	-04	06	10	03	-02	05	15	-02	-53	08	02	08	07	08	02	01	-08	-03	14	08	72	72	
	-27	08	04	06	11	10	-11	-05	16	11	-01	-53	08	07	09	35	-22	00	18	-10	-03	03	00	67	67	
	26	12	-03	01	03	-04	06	-02	02	11	13	07	-04	02	10	28	05	07	03	12	-02	00	-02	69	69	
	39	10	04	-05	10	-13	02	02	-04	10	-04	00	19	02	-08	19	04	03	03	11	-03	01	08	72	72	
	77	11	05	-10	06	04	-07	-01	00	02	-04	07	-09	-03	10	35	04	00	18	-10	03	03	01	62	62	
	50	20	09	-12	-04	-12	12	06	08	-07	-01	07	-09	-01	09	35	-12	07	18	-10	-07	02	02	78	78	
	-80	-08	-06	04	09	02	-00	21	-03	08	-00	-05	-00	-06	10	-01	-04	05	-04	04	-02	02	-12	64	64	
	52	13	-01	-12	-05	-02	08	-14	-03	-07	-00	02	-09	-06	10	28	-20	05	-14	-06	-02	-38	-09	68	68	
	-66	-13	06	-01	06	-05	-08	20	07	09	-09	02	-09	-11	-01	15	-06	04	-03	08	-10	-01	-01	54	54	
	18	12	10	-03	-01	-03	-01	-72	05	09	-17	-09	00	07	08	28	04	01	-01	01	09	01	02	-01	64	64
	06	10	14	-08	04	04	07	-41	05	11	-05	11	02	-06	-29	12	-05	04	10	09	01	02	-01	53	53	
	16	-08	-05	04	-05	09	03	-11	-03	07	-06	07	-17	-04	-21	12	-08	01	-03	08	-10	-01	01	64	64	
	01	-11	-03	03	-00	04	10	20	02	-56	-05	-07	00	02	09	-10	-05	04	23	08	09	02	02	50	50	
	05	-02	-08	-00	11	05	08	27	-05	-73	-08	-05	-06	-10	15	-10	06	07	08	-07	-08	15	07	55	55	
	-03	02	-03	-00	04	02	08	-22	-01	-32	06	-05	-00	22	63	-29	09	23	-05	-07	-08	12	-01	50	50	
	26	09	08	-05	01	-01	01	-76	07	02	-09	-15	03	10	-03	-06	03	06	-07	01	-05	04	04	71	71	
	20	19	14	-06	08	-06	04	-55	00	07	04	13	10	02	-03	-04	-03	04	01	04	-02	00	-22	63	63	
	02	04	07	-05	07	-04	-00	08	-05	-08	-01	-10	08	03	-07	-06	-04	-02	04	04	-05	19	03	61	61	

TABLE 6 -- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	
40	06	-05	09	12	-02	00	-04	13	-02	-38	-09	-06	07	62	-04	12	-07	06	-17	06	-17	06
41	-04	-00	-09	-09	10	18	15	-14	-03	08	-04	06	-02	02	05	-00	-17	-06	02	-06	-17	06
42	08	16	08	14	-09	-77	-07	-02	-00	03	-03	02	05	04	06	-07	-03	04	04	06	-07	06
43	14	06	06	07	-06	-66	-20	08	04	-00	00	-05	04	03	-13	02	09	09	-14	08	-07	06
44	14	07	-04	14	-00	-64	-07	-06	01	06	-02	01	-02	-06	21	-06	-12	-08	-36	-01	-07	06
45	-08	-06	-00	-14	02	-78	03	00	-11	09	-02	04	04	01	-08	01	11	-05	-06	03	-06	06
46	17	07	14	13	-06	-54	-20	01	02	-08	04	10	05	-06	-08	20	14	-08	-06	06	06	
47	17	06	04	14	-08	-67	-13	-00	14	-01	07	01	19	03	-13	01	13	-01	04	-06	02	
48	09	14	-00	04	-06	-63	04	-13	06	-00	-03	-06	02	-00	-03	-04	01	-01	12	-02	-02	
49	12	14	08	20	.02	-77	-09	03	05	01	-02	01	04	-07	-03	08	08	02	-07	-05	-05	
50	-17	-15	-04	13	.05	-77	05	01	-08	08	03	-06	05	-02	-05	-01	06	-00	01	-03	08	
51	-06	-05	02	09	19	-07	02	01	05	04	10	01	-06	08	05	-06	-11	06	-03	-06	-06	
52	10	14	03	-18	03	-08	-06	-05	58	04	-11	08	05	11	13	33	-12	-02	-10	08	08	
53	-00	-03	-06	-13	03	-06	17	-09	-25	10	04	-06	-10	-10	-03	-64	-03	03	00	-07	-07	
54	11	03	07	-08	.00	-07	-10	-07	73	-05	02	-05	11	-05	06	07	-04	02	02	00	00	
55	19	03	04	-10	.05	-07	-08	-06	76	03	-05	-08	12	03	-15	15	04	-01	-07	-03	11	
56	-08	-10	03	-00	.00	04	-03	03	-66	07	-05	03	05	-01	-11	-11	02	-04	07	01	01	
57	13	01	-07	-09	.11	-04	-21	01	75	04	-01	-02	04	03	-08	-11	02	02	04	01	07	
58	12	04	-03	-10	.12	-07	-20	-06	74	-01	01	04	-01	-03	-08	-07	02	04	01	07	07	
59	-10	16	-10	-10	.07	-03	01	00	36	31	-04	37	-11	06	-21	-04	09	-02	-24	36	-14	
60	05	-14	07	06	.00	09	-05	-05	-38	-19	07	-48	08	-09	10	09	08	04	-01	04	04	
61	72	08	-06	-01	-07	-16	-24	-06	13	02	08	-08	01	00	01	08	08	08	01	-01	04	
62	-75	-08	04	-04	.00	23	03	03	-12	-03	05	00	04	-11	-04	-01	04	-02	-00	-05	-05	
63	-02	-10	-01	-04	04	02	07	-01	01	-05	04	-04	04	-02	02	00	04	-03	08	86	-05	
64	-51	01	01	-02	09	15	26	01	-01	11	-03	-13	01	07	18	-04	-15	-06	-06	-05	-05	
65	80	11	-02	-03	-05	-17	-09	-03	07	-03	-03	-13	06	04	03	-02	-00	-04	-03	-03	-03	
66	59	12	-10	01	.11	-08	-06	-08	10	01	-07	-15	-01	01	-02	-13	-10	08	-05	10	10	
67	-74	-03	02	-10	10	08	22	-00	-10	-01	03	-10	-04	13	10	-08	-08	-02	-03	02	02	
68	-62	-01	-06	-08	04	04	-05	18	-01	01	07	-11	-08	02	-20	11	21	05	-10	16	16	
69	80	05	01	-02	-10	-13	-16	-06	07	01	01	-01	01	03	-04	-02	07	00	-02	-00	-00	
70	-63	-04	-08	-03	03	03	20	00	-13	03	-13	00	05	08	-08	-08	-08	04	-02	15	15	
71	-04	-03	01	-11	-04	02	03	01	-00	04	-80	02	03	-04	-08	-00	-04	-00	-03	-02	-02	
72	26	-12	-16	-08	-27	-11	-13	-42	12	-03	-10	07	-03	01	07	15	15	18	01	12	12	
73	-07	-00	-05	97	06	03	02	77	-07	-08	06	-11	04	13	01	08	08	-04	-03	05	05	
74	-03	06	02	99	05	-01	02	-32	-00	10	14	01	23	-03	-07	04	-42	03	-22	05	05	
75	05	07	12	20	11	00	-03	05	-04	06	64	09	27	08	-08	-02	-26	00	06	01	01	
76	-08	-02	-05	04	-05	-02	02	-27	10	-11	06	-05	-04	-02	04	03	-26	06	-21	05	05	
77	08	13	-10	-07	-21	-04	-12	-69	15	01	-05	00	03	-03	-06	-06	06	-21	-08	-05	-05	
78	10	07	-03	-05	.03	-01	-18	-61	06	02	06	-03	15	07	06	-08	-02	01	-08	07	07	



TABLE 6 -- (Continued)

III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX	XXI	XXII	XVIII	XXIV	XXV	R <sup>2</sup> **
09	12	-02	00	-04	13	-02	-38	-09	-06	07	62	-04	12	-07	06	-17	06	-01	-03	-07	08	-00	67
-09	-09	10	18	15	-14	-03	08	-04	06	-02	02	05	-00	-17	-06	02	-06	-06	-09	05	-02	-67	62
08	14	-09	-77	-07	-02	-00	03	-03	02	05	04	06	-07	-03	04	04	00	-02	00	07	00	-01	69
06	07	-06	-66	-20	08	04	-00	00	-05	04	03	-13	02	09	-14	08	08	08	07	05	-12	12	64
-04	14	-00	-64	-07	-06	01	06	-02	01	-02	-06	21	-06	-12	-08	-06	-01	-09	01	-11	-12	17	60
-00	-14	02	78	03	00	-11	09	-02	04	04	01	-08	01	11	-05	-06	03	01	03	-02	-10	04	70
14	13	-06	-54	-20	01	02	-08	04	10	05	-06	-08	20	14	-08	-06	06	10	03	09	21	20	62
04	14	-08	-67	03	00	-11	-01	-02	07	04	03	-13	01	13	-01	04	02	03	07	02	-14	08	66
-00	04	-06	-63	04	-13	06	-00	-03	-06	02	-00	-03	01	01	-01	01	-02	00	-08	-10	-02	-37	62
08	20	-02	-77	-09	03	05	01	-02	01	04	-07	-03	08	08	02	01	-05	07	-04	-04	06	10	73
-04	-13	-05	77	05	01	-08	08	03	01	05	08	05	-01	06	-07	08	08	04	10	-04	06	10	72
02	09	19	-07	02	01	05	04	10	02	-06	11	03	33	-11	-02	00	-02	00	04	00	-01	-05	73
03	-18	03	-08	-06	-05	58	04	-11	08	05	11	05	78	-12	-02	-03	08	-06	-06	04	00	15	67
-06	-13	03	-06	17	-09	-25	10	04	-10	-10	-05	06	64	-03	03	00	-07	-07	03	-06	-15	14	63
07	-08	-00	-07	-10	-07	73	-05	02	-05	11	-10	03	07	-04	02	02	00	-07	00	04	00	-04	65
03	-10	-05	-07	-08	-06	76	03	-05	-08	12	03	-02	15	04	-01	-09	-03	07	-08	-06	-00	10	72
04	-00	00	04	-03	08	-66	07	-05	03	05	-01	-08	-15	-11	-09	10	11	01	-06	-18	-15	-07	61
-07	-09	-11	-04	-21	01	75	04	-01	-02	04	03	02	-11	02	04	01	07	01	08	04	07	-15	71
-03	-10	-12	-07	-20	-06	74	-01	01	04	-01	-03	-08	-07	02	04	01	07	01	-02	01	02	-08	67
-10	-10	-07	-03	01	00	36	31	-04	04	-11	06	06	-21	-04	-07	-24	09	23	-04	-18	10	-03	66
07	06	-00	09	-05	-05	-38	-19	07	-48	08	-09	-15	10	09	-02	36	-14	-15	03	02	-18	09	72
-06	-01	-07	-16	-24	-06	13	02	08	-08	01	00	-06	01	08	-01	04	04	08	06	00	-08	-06	69
04	-14	-00	23	03	03	-12	-03	05	00	04	-11	-04	00	-01	-02	-00	-05	02	-01	-12	06	-05	68
-01	-04	04	02	07	-01	01	-05	04	-04	-04	-02	02	-00	04	-03	08	86	-00	02	05	-02	04	79
01	-02	09	15	26	01	-01	11	-03	-13	01	07	18	-04	-15	-06	-06	-05	-30	-04	-01	-05	16	65
-02	-03	-05	-17	-09	-03	07	-03	-03	-13	06	04	03	-02	-00	-04	-03	-03	-03	-04	-03	09	-03	53
-10	01	-11	-08	-06	-08	10	01	-07	-15	-01	01	-02	-13	-10	-08	-05	10	-03	-18	-03	09	-03	68
02	-10	10	08	22	-00	-10	-01	03	-10	-04	13	10	-08	-08	-02	-03	02	-03	02	00	01	04	68
-06	-08	04	04	-05	18	-01	01	07	-11	-08	02	-20	11	21	05	-10	16	-07	04	03	-17	-21	67
01	-02	-10	-13	-16	-06	07	01	01	-01	01	03	-04	-02	07	00	-02	-00	-05	-04	-12	03	0	74
-08	-03	03	03	20	00	-13	03	-13	00	05	08	-08	-08	-08	04	-02	15	-02	02	-09	-03	01	54
01	-11	-04	02	03	01	-00	04	-10	02	-03	01	07	-14	15	18	01	12	-02	-01	-08	-00	-07	70
-16	-08	-27	-11	-13	-42	12	-03	-10	07	04	13	01	-07	08	-04	-03	05	-07	-03	-07	-17	02	56
-05	09	05	03	02	-32	-07	-08	06	-11	23	-03	01	-07	08	-04	-03	05	-06	03	-06	09	08	69
02	20	11	00	02	05	-04	06	14	09	27	08	-08	-02	-42	03	-22	05	-06	08	-04	16	-15	50
-05	04	-05	-02	-03	05	-04	06	64	09	27	08	-08	-02	-26	00	06	01	-02	-03	-01	-09	01	66
12	20	11	00	02	-27	10	-11	06	-05	-04	-02	04	03	06	01	-71	-15	-05	04	-02	-03	06	65
-05	04	-05	-02	-02	-29	15	01	06	-05	-04	-02	06	06	06	05	-21	-05	00	02	-02	-03	-14	70
-10	-07	-21	-04	-12	-67	06	02	06	-03	15	07	06	-08	-02	01	-08	07	-07	02	-06	21	-09	53



TABLE 6 -- (Continued)

Item No.	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII	XIII	XIV	XV	XVI	XVII	XVIII	XIX	XX
79	-07	-03	00	18	04	05	04	02	-02	-08	78	-05	-02	-02	04	05	07	-00	-11	-00
80	07	09	03	06	05	-10	05	-23	07	-00	06	-00	74	03	10	02	-02	-05	-04	-00
81	-03	-06	-11	-77	-12	13	-06	01	15	01	-06	-09	02	02	02	-02	-01	-01	-02	-11
82	14	08	06	64	01	-11	02	-05	-16	-01	19	08	08	08	01	-06	-03	00	06	-06
83	-03	-04	-09	-75	-03	12	01	-01	05	10	-09	-03	-05	01	-06	05	-06	-03	00	02
84	-01	11	09	61	05	-04	-06	05	05	-23	05	-04	17	-04	03	09	-04	-07	-05	-00
85	11	-13	-08	-76	-05	05	02	-09	07	07	-01	07	01	-02	-06	09	-04	04	-03	-06
86	-03	06	04	-77	02	-19	02	03	-09	03	04	07	01	-02	-06	-02	-00	-00	05	02
87	-00	02	-12	-68	-03	06	11	-15	-04	17	02	06	-08	03	05	-01	-07	02	02	02
88	-04	-18	02	-68	-05	15	-04	04	-00	-04	-01	-02	-09	02	-02	-12	05	-08	-05	-01
89	-01	-09	-05	-78	-03	11	-02	00	09	-00	-04	-02	-00	02	06	01	-03	-07	-05	-01
90	-11	-04	07	17	08	03	10	-01	02	-05	-04	-02	06	-04	-05	01	-03	-07	13	09
91	-20	-04	01	-03	06	04	70	00	-09	01	01	05	-02	-07	01	-01	04	-01	-03	05
92	17	05	01	-00	03	-17	-73	-10	11	10	-10	05	-00	-01	-08	-15	-19	-10	-06	-10
93	-18	03	-12	02	09	14	68	02	-07	-07	03	-07	05	06	-15	-06	-08	-10	-04	05
94	-09	01	-02	00	16	15	39	-26	-05	03	-05	-11	09	21	-20	-04	00	04	04	04
95	09	-02	-03	-11	-01	02	04	-01	-08	06	-08	-09	00	-09	-01	-06	05	-02	22	03
96	10	-01	-01	-03	-11	-13	-63	02	05	01	10	-09	-02	05	-74	-03	01	-03	06	-01
97	-23	-08	02	04	06	25	66	14	-18	05	10	-15	04	01	34	13	06	03	-05	-07
98	09	03	02	06	-07	01	-48	-06	09	-04	03	-03	01	04	58	09	-00	03	-03	09
99	-14	-07	07	01	01	07	42	-10	-10	15	-06	01	05	12	09	01	05	08	07	04
100	18	-00	03	05	-07	-07	-62	-10	09	-11	01	-03	01	07	-05	-08	23	-33	09	-06
PROP. VAR.	05	05	04	06	04	05	04	02	04	03	02	02	02	02	02	02	02	02	01	01

TABLE 6 -- (Continued)

III	00	18	04	05	04	02	-02	-08	78	-05	-02	-02	04	05	07	-00	-11	-00	-12	-01	-04	05	-04	05	71
03	06	06	05	-10	05	-23	07	-00	06	-00	74	03	10	02	-02	-05	-04	-11	09	04	06	09	09	69	
-11	-77	-12	13	-06	01	-05	15	01	-06	-09	02	02	02	-01	-01	-02	-02	-06	-03	-05	-05	01	-01	70	
06	64	01	-11	02	-05	-16	-05	-01	19	08	08	08	01	-06	-03	00	06	02	07	-23	-04	-03	08	61	
-09	-75	-03	12	01	-01	05	05	10	-09	-03	-05	01	-06	05	-06	-07	-05	-00	05	-02	-06	-07	06	64	
09	61	05	-04	-06	05	-09	07	07	05	-04	17	-04	03	09	-04	04	-03	-06	-04	03	-02	03	01	52	
-08	-76	-05	05	02	-09	05	07	07	04	07	01	-02	-06	09	-00	-07	02	02	03	-09	-01	-05	04	67	
04	-77	02	-19	02	-03	-19	-09	03	04	07	-08	03	05	-01	-07	02	-04	07	11	-01	-13	-17	01	74	
-12	-58	-03	06	11	04	-15	-04	17	02	06	-09	02	06	-12	05	-08	-05	-01	-01	-14	-14	-14	08	65	
02	-78	-05	15	-04	04	04	-00	-04	-01	-02	-00	02	06	01	05	-07	-05	-01	05	03	-01	03	01	58	
-05	-78	08	11	-02	00	00	09	-00	-04	-02	06	-04	-05	-03	04	-01	-03	05	-05	-03	13	03	01	68	
07	17	03	03	10	-01	00	02	-05	04	01	-02	-07	01	-01	04	-02	-05	-06	-10	03	03	01	09	68	
01	-03	06	04	70	00	09	-09	01	01	05	-00	-01	-08	-19	12	04	-06	05	-06	04	-03	-02	04	71	
01	-00	-03	07	10	-01	11	11	10	-10	05	05	06	21	-06	-08	-10	-04	04	-01	00	-01	04	09	64	
-12	02	09	14	68	02	-07	-07	-07	03	-07	09	-09	21	-04	00	04	04	04	-00	-02	-10	05	-04	64	
-02	00	16	15	39	-26	-05	-05	03	-05	-11	00	-01	-20	-06	05	-02	22	03	-41	02	-08	13	-03	58	
-03	-11	-01	02	04	-01	-08	05	06	-08	-09	-02	05	-74	-03	01	-03	06	-01	00	-01	-07	02	03	61	
-01	-03	-11	-13	-63	02	05	-18	01	10	-15	04	01	34	13	06	-05	-07	-01	11	05	04	-17	02	66	
02	04	06	15	66	14	-06	09	-05	01	-01	10	-02	-11	10	-00	-03	09	09	-07	13	-02	-01	06	65	
02	06	-07	01	48	-06	09	09	-04	03	-03	01	04	58	09	05	08	07	04	-14	01	-10	05	04	66	
07	01	01	07	42	13	-10	-10	15	-06	01	05	12	-05	01	-25	-33	09	-06	22	14	12	-16	-04	57	
03	05	01	-07	-62	-10	09	-11	-11	01	-03	01	07	14	-08	23	06	08	-11	05	-03	-15	02	-08	60	
04	06	04	05	04	02	04	03	02	02	02	02	02	02	02	02	02	01	01	02	01	01	01	01	01	

TABLE 7

MEANS, STANDARD DEVIATIONS AND t-TESTS FOR FORMS A AND B\*

ITEM NO.	SITUATIONS** BIPOLAR ADJECTIVE DIMENSION	FORM A (N=456)		FORM B (N=410)		t***
		MEAN	S.D.	MEAN	S.D.	
I. NEW FAMILY NEXT DOOR						
1	good-bad	2.07	0.86	2.57	0.90	8.29
2	safe-unsafe	2.07	0.87	2.33	0.96	4.14
3	angry-not angry	4.36	0.97	4.07	1.14	4.03
4	friendly-unfriendly	1.77	0.81	1.94	0.93	2.83
5	sympathetic-not sympathetic	2.40	0.99	2.72	1.12	4.50
6	nervous-calm	3.57	1.16	3.42	1.16	1.97
7	happy-sad	2.32	0.85	2.76	0.89	7.54
8	objectionable-acceptable	4.05	0.99	3.90	1.13	2.03
9	desirable-undesirable	2.33	0.93	2.80	0.98	7.26
10	suspicious-trusting	3.77	0.91	3.53	1.00	3.60
II. MAN RAPED WOMAN						
11	affection-disgust	4.50	0.79	4.44	0.79	1.05
12	relish-repulsion	4.45	0.80	4.42	0.80	0.47
13	happy-sad	4.47	0.77	4.61	0.67	2.95
14	friendly-hostile	4.11	0.82	4.03	0.91	1.49
15	uninvolved-involved	2.95	1.19	2.92	1.15	0.09
16	hope-hopelessness	3.22	0.97	3.19	1.05	0.39
17	aloof-outraged	3.51	0.97	3.45	0.97	0.94
18	injure-kill	2.41	1.13	2.29	1.11	1.63
19	safe-fearful	3.33	1.14	3.26	1.13	0.85
20	empathetic-can't understand	3.38	1.23	3.61	1.10	2.95
III. MAN SELLING MAGAZINES						
21	relaxed-startled	3.31	1.15	3.03	1.24	3.41
22	receptive-cautious	3.94	1.02	3.36	1.28	7.45
23	excited-unexcited	3.79	1.06	3.47	1.06	4.42
24	glad-angered	3.33	0.70	3.10	0.62	5.24
25	pleased-annoyed	3.74	0.84	3.34	0.80	7.20
26	indifferent-suspicious	3.35	1.24	2.87	1.33	5.43
27	tolerable-intolerable	2.75	0.99	2.30	1.07	6.47
28	afraid-secure	2.97	1.06	3.03	1.15	0.77
29	friend-enemy	3.05	0.75	2.61	0.88	7.88
30	unprotected-protected	3.13	1.01	3.22	1.05	1.22
IV. CORNER OF LOITERING MEN						
31	relaxed-tensed	4.10	0.93	4.10	0.99	0.05
32	pleased-angered	3.33	0.69	3.22	0.64	2.43
33	superior-inferior	3.14	0.93	3.18	0.74	0.63
34	smarter-dumber	2.55	0.85	2.71	0.66	3.10
35	whiter-blacker	2.68	0.73	2.10	1.00	9.74
36	aggressive-passive	3.55	0.97	3.66	0.98	1.63
37	safe-unsafe	3.80	0.94	3.80	1.01	0.15
38	friendly-unfriendly	3.34	0.97	3.06	1.02	4.13
39	excited-unexcited	2.84	1.04	2.82	1.05	0.16
40	trivial-important	2.93	1.05	3.00	1.01	0.97

\*Scale A to E (Numerical equivalent, 1 to 5)

\*\*See Table 1 for complete situation.

\*\*\*All t values larger than 1.97 are significant beyond .05 (2-tailed test).

TABLE 7 -- (Continued)

ITEM NO.	SITUATIONS** BIPOLAR ADJECTIVE DIMENSION	FORM A (N=456)		FORM B (N=410)		t***
		MEAN	S.D.	MEAN	S.D.	
V. FRIEND BECOMES ENGAGED						
41	aggressive-passive	2.66	1.03	3.31	1.06	9.21
42	happy-sad	1.69	1.06	2.64	1.28	11.96
43	tolerable-intolerable	1.60	0.87	1.97	1.10	5.50
44	complimented-insulted	2.04	0.96	2.74	0.86	11.19
45	angered-overjoyed	4.06	0.92	3.22	0.89	13.66
46	secure-fearful	2.24	1.06	2.55	1.07	4.26
47	hopeful-hopeless	1.80	0.96	2.16	1.09	5.25
48	excited-unexcited	1.69	0.88	2.45	1.01	11.80
49	right-wrong	2.13	0.98	2.70	1.20	7.74
50	disgusting-pleasing	4.28	0.92	3.33	1.07	14.00
VI. STOPPED BY POLICEMAN						
51	calm-nervous	4.08	1.13	3.13	1.52	10.45
52	trusting-suspicious	2.86	1.21	1.84	1.03	13.18
53	afraid-safe	2.63	1.27	3.68	1.37	11.77
54	friendly-unfriendly	2.34	1.18	1.90	1.05	5.67
55	tolerant-intolerant	2.15	1.13	1.66	0.88	7.07
56	bitter-pleasant	3.24	1.23	3.71	1.12	5.93
57	cooperative-uncooperative	1.63	0.92	1.43	0.80	3.27
58	acceptive-belligerent	1.95	0.97	1.64	0.86	4.91
59	inferior-superior	2.57	0.92	2.80	0.71	4.10
60	smarter-dumber	3.00	0.89	2.99	0.60	0.18
VII. PERSON JOINS SOCIAL GROUP						
61	warm-cold	2.08	0.96	1.91	0.86	2.68
62	sad-happy	3.81	0.95	3.75	0.90	0.88
63	superior-inferior	2.74	0.73	2.93	0.38	4.74
64	threatened-neutral	3.95	1.16	4.27	1.00	4.33
65	pleased-displeased	2.09	0.93	2.25	0.94	2.55
66	understanding-indifferent	2.01	0.96	2.09	1.01	1.15
67	suspicious-trusting	3.66	1.02	3.86	0.97	2.82
68	disappointed-elated	3.40	0.74	3.27	0.72	2.63
69	favorable-unfavorable	2.20	0.94	2.19	0.97	0.25
70	uncomfortable-comfortable	3.59	1.03	3.73	1.06	1.92
VIII. YOUNGSTER STEALS						
71	surprising-not surprising	3.14	1.43	3.21	1.17	0.78
72	sad-happy	1.87	0.94	1.84	0.92	0.39
73	disinterested-interested	3.69	1.09	3.47	1.13	2.99
74	close-distant	2.92	1.15	3.22	1.10	3.89
75	understandable-baffling	2.89	1.14	2.59	1.00	4.09
76	responsible-not responsible	3.18	1.27	3.24	1.20	0.70
77	concerned-unconcerned	2.11	1.07	2.16	1.05	0.65
78	sympathy-indifference	2.58	1.11	2.61	1.13	0.43
79	expected-unexpected	3.19	1.07	3.05	0.95	2.10
80	hopeful-hopeless	2.79	1.08	2.72	1.00	0.98

\*Scale A to E (Numerical equivalent, 1 to 5)

\*\*See Table 1 for complete situation.

\*\*\*All t values larger than 1.97 are significant beyond .05 (2-tailed test).

TABLE 7 -- (Continued)

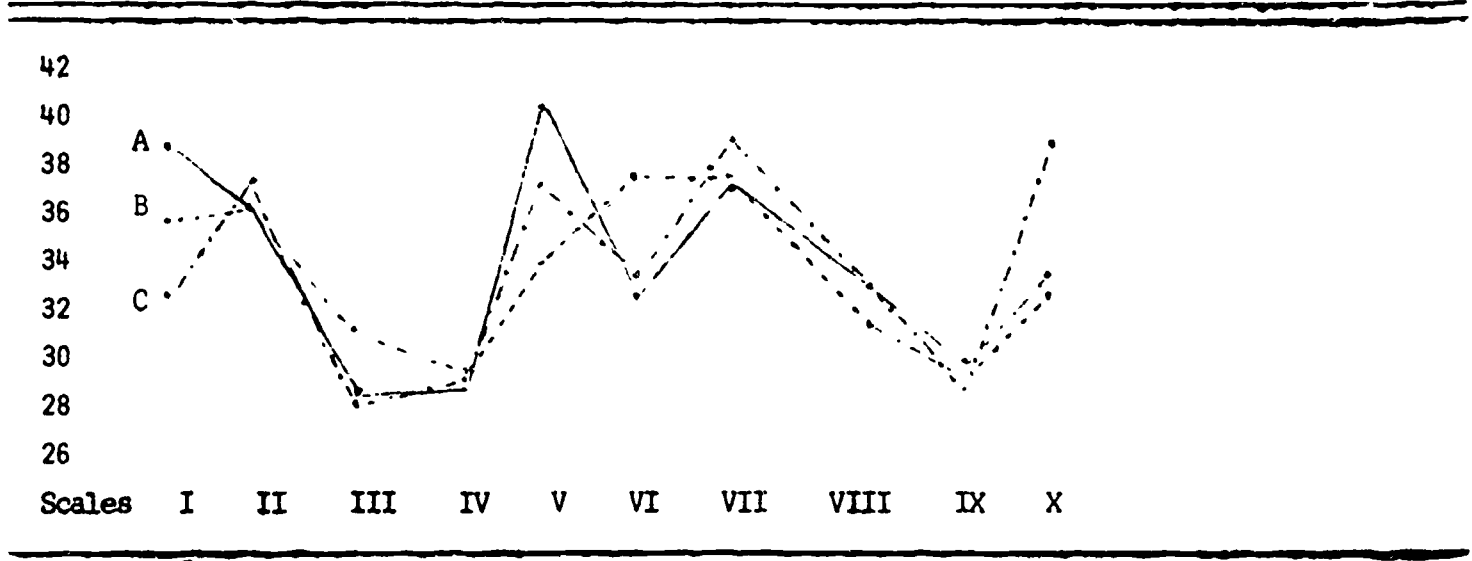
ITEM NO.	SITUATIONS** BIFOLAR ADJECTIVE DIMENSION	FORM MEAN	(N=456) S.D.	FORM B MEAN	(N=410) S.D.	t***
IX. CAMPUS DEMONSTRATION						
81	bad-good	2.84	1.04	2.64	1.04	2.84
82	understanding-indifferent	2.71	1.13	2.81	1.05	1.42
83	suspicious-trusting	2.56	0.97	2.67	0.98	1.68
84	safe-unsafe	3.17	1.07	3.29	1.08	1.62
85	disturbed-undisturbed	2.60	1.12	2.46	1.06	1.91
86	justified-unjustified	2.87	0.94	2.90	0.96	0.48
87	tense-calm	2.64	1.07	2.59	1.01	0.78
88	hate-love	3.02	0.76	3.05	0.68	0.55
89	wrong-right	2.97	0.91	2.93	0.91	0.68
90	humorous-serious	3.83	1.01	4.08	0.94	3.79
X. ONLY PERSON STANDING						
91	fearful-secure	3.31	1.05	2.99	1.19	4.15
92	tolerable-intolerable	2.22	1.17	2.10	1.04	1.54
93	hostile-indifferent	3.85	1.07	3.73	1.06	1.67
94	important-trivial	3.93	1.04	3.71	1.08	3.01
95	conspicuous-inconspicuous	2.31	1.15	1.97	1.12	4.35
96	calm-anxious	2.72	1.23	3.05	1.28	3.86
97	indignant-understanding	3.70	1.08	3.68	0.96	0.41
98	comfortable-uncomfortable	3.43	1.18	3.52	1.22	1.11
99	hate-love	3.06	0.63	3.11	0.67	1.14
100	not resentful-resentful	2.24	1.13	2.11	1.09	1.74

\*Scale A to E (Numerical equivalent, 1 to 5)

\*\*See Table 1 for complete situation

\*\*\*All t values larger than 1.97 are significant beyond .05 (2-tailed test).

ILLUSTRATION 1  
 SAS FORMS MEAN SCORE PROFILE<sup>a</sup>



<sup>a</sup>Form A = —————  
 Form B = - - - - -  
 Form C = . . . . .

TABLE 8  
SAS RAVE SCALE RELIABILITIES

Scale Name	Form A	Form B	Form C
I: New Family Next Door	.78	.86	.86
II: Man Raped Woman	.74	.72	.72
III: Man Selling Magazines	.80	.85	.83
IV: Corner of Loitering Men	.56	.53	.44
V: Friend Becomes Engaged	.85	.85	.84
VI: Stopped By Policeman	.68	.85	.68
VII: Person Joins Social Group	.85	.86	.86
VIII: Youngster Steals	.62	.46	.53
IX: Campus Demonstrator	.83	.82	.85
X: Only Person Standing	.85	.83	.80

TABLE 9  
SIGNIFICANT MULTIPLE t-TEST ITEMS<sup>a</sup>

Scale	I	II	III	IV	V	VI	VII	VIII	IX	X									
	MSU UMD	MSU UMD	MSU UMD	MSU UMD	MSU UMD	MSU UMD	MSU UMD	MSU UMD	MSU UMD	MSU UMD									
1	1	--	12	21	--	32	--	41	41	51	51	61	--	73	--	81	81	91	91
2	2	13	13	22	22	34	34	42	42	52	52	--	62	74	--	90	90	94	94
3	3	20	20	23	23	35	35	43	43	53	53	63	63	75	--			95	95
4	4			24	24	--	36	44	44	54	54	64	--	79	--			96	96
5	5			25	25	38	38	45	45	55	55	65	65						97
6	6			26	26	--	40	46	46	56	56	67	--						
7	7			27	27			47	47	57	--	68	68						
8	8			29	29			48	48	58	58	--	69						
9	10							49	49	59	--								
10								50	50	--	60								

<sup>a</sup>48 items had significant mean differences at both institutions



TABLE 10

SAS GROUP POST-HOC CONTRASTS  
FOR BLACK VERSUS WHITE SCALE MEANS

Scale	Group Means	Least Square Est. of Effect <sup>a</sup>	Confidence Interval ("t" + SE)	Significance (alpha=.01)
I: New Family	A 38.774 B 35.788 C 32.325	2.986	+ 1.128	.01
II: Rape	A 36.316 B 36.224 C 37.205	0.091	+ 0.944	NS
III: Magazines	A 28.425 B 31.115 C 28.270	-2.689	+ 1.156	.01
IV: Loitering	A 28.531 B 29.329 C 28.895	-0.799	+ 0.712	.01
V: Friend Engaged	A 40.491 B 34.029 C 36.968	6.462	+ 1.149	.01
VI: Stopped By Policeman	A 32.432 B 37.593 C 33.141	-5.161	+ 0.989	.01
VII: Joins Social Group	A 37.283 B 37.500 C 38.814	-0.217	+ 1.085	NS
VIII: Youngster Steals	A 32.768 B 31.546 C 32.820	1.221	+ 0.885	.01
IX: Campus Demonstration	A 29.732 B 29.427 C 28.643	0.306	+ 1.141	NS
X: Only Person Standing	A 33.539 B 32.398 C 38.686	1.142	+ 1.205	NS

<sup>a</sup>The difference between cell means adjusted for cell size.